

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

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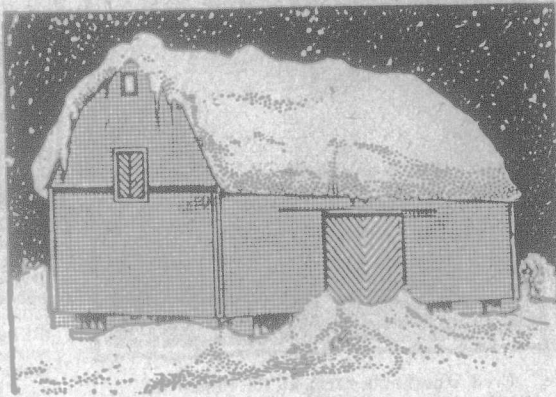
VOL. LIII.

LONDON, ONTARIO, AUGUST 29, 1918.

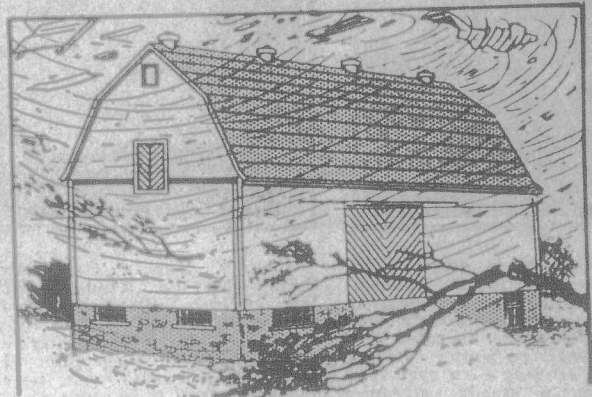
No. 1353



RAINPROOF



SNOWPROOF



WINDPROOF

The Economy of an Asphalt roof

The cost price of the roofing material is not the real cost of any roof. There is also the cost of laying and the cost of the repairs it needs from time to time. The sum total of all of these is the real cost.

While you may pay less per square for some other roofing material than you would for Brantford Asphalt Roofing the cheaper roofing will cost you far more in the end.

Brantford Asphalt Roofing

is not made to sell at a price to meet competition. It is made of the most enduring materials procurable, and made most carefully, too.

The body of Brantford Asphalt Roofing is a specially woven felt of exceptional pliability and durability. It is also very absorbent, so that it will take a heavy asphalt saturation.

A special blend of asphalts is used for the saturation and coating. By blending hard, brittle asphalts with soft, pliable ones we get an asphalt with remarkable elasticity — a tougher and more durable material.

Any good grade of asphalt is a very enduring material but our blend of asphalts is exceedingly lasting, and it puts Brantford Asphalt Roofing in a class by itself as an economical investment.

It is non-absorbent, therefore proof against rain and snow—and there are no exposed edges or places where the wind can get under and loosen or lift off the roofing.

The cost of Brantford Asphalt Roofing and the cost of laying it is the total cost of this roofing. It requires no repairs. It is a permanent roof.

If you could go through the factory and see this roofing made, you would be convinced of its splendid quality. But it has already proved this by its record of many years of service on roofs and still practically as sound as ever.

Brantford Asphalt Roofing is the real economy roof—and there is hardly any other line of goods that has had the small advance in price since the war that Brantford Roofing has. By enlarging our output and installing the most up-to-date labor-saving machinery we have reduced the cost of production and thereby offset to a large extent the increased cost of raw materials.

There are no large war time profits made on Brantford Asphalt Roofing. This company is building for the future and is maintaining its old policy of keeping up the high standard of its products and offering them at fair and square prices.

Brantford Asphalt Roofing is easily handled and quickly laid, saving time and cost of labor.

If you have a barn, silo, chicken house, root house or other building that needs re-roofing, or if you are going to put up any new building this year you will be interested in reading our latest roofing catalog.

Write for a copy. It is free.

Brantford Roofing Co. Limited

Brantford, Canada
Branches at Toronto, Montreal, Halifax

Also makers of Brantford RUBBER Roofing, Brantford Asphalt SLATES, Standard MOHAWK Roofing, Mohawk RUBBER Roofing and LEATHEROID Roofing.

WILL SILO FILLING TIME FIND YOU READY?

SILO FILLING time will soon be here—and the Canadian Farmer is depending upon the corn crop this year as never before. It is your duty, and it will mean more money in your pocket, to use every effort, to get ALL the FEEDING VALUE out of every stalk of corn.

The most important thing is to silo your corn crop when it possesses the GREATEST FOOD VALUE. If you get a Gilson Silo Filler EARLY—before we are sold out—you will fill your own silo. This means that you will silo your own corn when it is just right for silage. Be independent of the cutter gang. You do not need big power to operate the "Gilson." Your own farm engine—4 h.p. or larger—will do the work.

Write for Free Silo Filler Book to-day
It tells the Gilson Story from start to finish—points out the advantages of design, and describes the all-metal construction in such a way that you will understand WHY our machines cut and elevate MORE silage with LESS power than ANY OTHER Blower Cutter. This is a matter of dollars and cents to you. A Gilson Silo Filler will, in all probability, pay for itself the first season. BEWARE OF IMITATIONS AND INFRINGEMENTS.

The Wonderful **GILSON**



Your small engine will run it

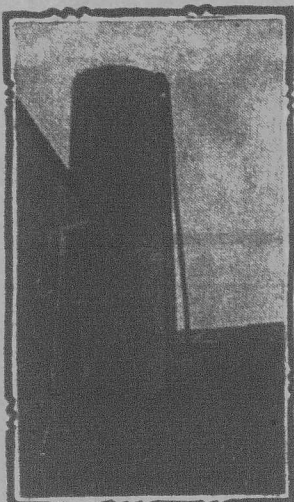
It is as much a part of your Farm Equipment as your Binder or Plow.

GILSON MFG. CO., LIMITED

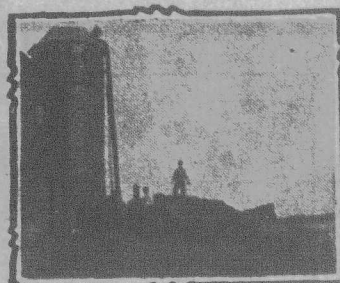
Makers of the Genuine and Only GILSON The Lightest Running Blower Cutter made

389 YORK STREET

GUELPH ONTARIO



"My silo is 40' high," writes Frank Bolton, Guelph, Ont. "but my 8 h.p. engine which I purchased from you nine years ago operates my 15' ensilage cutter splendidly, sending corn over the top in a steady stream. This outfit is the admiration of all who see it."



John H. Murray, Sea View Farm, Cap La Ronde, C.B. N.S. writes: "Enclosed find picture of my 10' Gilson Silo Filler, 6 h.p. Gilson Engine and 30' Gilson Hilo Silo. I filled my silo with oats, peas and vetch, and it is coming out fine and not a bit spoiled. My outfit does splendid work and I am very well pleased with it."



Fred Huether's farm at Kitchener, Ont., showing his 8 h.p. Gilson Engine and 18' Gilson ensilage cutter filling his 30' Gilson Hilo Silo.



Jacob N. Haist, Ridgville, Ont., writes: "The enclosed picture shows our 18' Silo Filler and 12 h.p. Gilson Engine hard at work filling our silo. This outfit works beautifully and is as much a part of every farm as a binder or mower."



M. L. Adolph, of Gowans-town, Ont., declares that his silo filling outfit "is a source of real satisfaction and profit. I would not want to be without my 10' Gilson Silo Filler, 8 h.p. Gilson Engine and 12x30' Gilson Hilo Silo. I have used it for three seasons, and have had practically no trouble—it was always ready when wanted."

38

HYLO SILO

Sweet Fresh Ensilage down to the last forkful

THE HYLO SILO is perfectly air-tight. No frozen or spoiled ensilage around the walls. Convenient and perfect fitting doors, adjustable without hammer or wrench. Made of Guaranteed Long Leaf Yellow Pine. Built to last a life-time. Stands rigid when empty.

Write for prices and catalogue. AGENTS WANTED.

Gilson Mfg. Co. Ltd. 49 York St. Guelph (4)



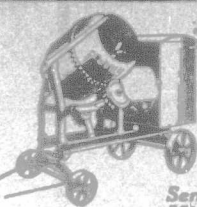
GILSON TRACTOR



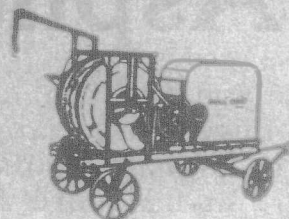
THE STANDARDIZED TRACTOR

—is a business machine designed along sound mechanical lines of proven worth, with no freak features. 12-25 and 15-30 h.p. Write for free catalogue and rock bottom prices. GILSON MFG. CO. LTD. 379 YORK ST. GUELPH, CAN. 37

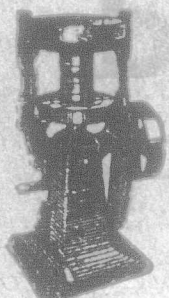
GILSON CONCRETE MIXER



The ideal small Concrete, Plaster and Mortar Mixer, hand or power. Built in three sizes. Smallest size 2 1/2 cu. ft. per batch—mixes in two minutes—capacity 25 cu. yds. per day. Price on wheels without engine, \$75 3/4 ft. with engine and housing on truck, \$195 Send to-day for Concrete Mixer Bulletin No. 49 York St. GILSON MFG. CO. Ltd. Guelph, Ont. 34

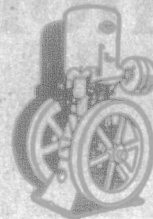


London Concrete Mixer



London Cement Tile Machine

When at Western Fair, Don't Fail to See in the Cement Machinery Building



Novo Gasoline Engine

NOVO Frost-proof Gasoline and Kerosene Engines. "40,000 in use."
London Concrete Mixers operated with NOVO Gasoline Engines.
London Cement Drain Tile Machine operated with NOVO Gasoline Engines.
Visit our plant, just two blocks south of Fair Grounds.

London Concrete Machinery Co., Ltd.

Cabell Street and Kitchener Avenue LONDON, ONT.



GILSON

"Goes Like Sixty" This Engine Will Cost You Nothing

save yourself a lot of worry and enjoy such a definite part of the staunch, reliable Gilson Engine.

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

GILSON MFG. CO., Limited, 259 York St., Guelph, Ontario

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

Profits in Silage

A BISSELL SILO MEANS MONEY FOR YOU

A Bissell Silo will make your Corn go twice as far, you can feed twice as much stock. It means cheaper costs of producing Beef and Pork. It means increased production of Milk and Butter.

Why Waste Your Corn Crop?

You can preserve it in a Bissell Silo, in Succulent form and therefore more palatable, and relished by cattle than dry feed! The old methods of shocking corn are wasteful. 25 to 30 per cent. of its value is lost. The Silo is the greatest money and labor saver on the farm to-day.

Write us to-day for Catalogue, and full description of Bissell Silo.

T. E. BISSELL Co. Ltd., Elora, Ont. Dept. W

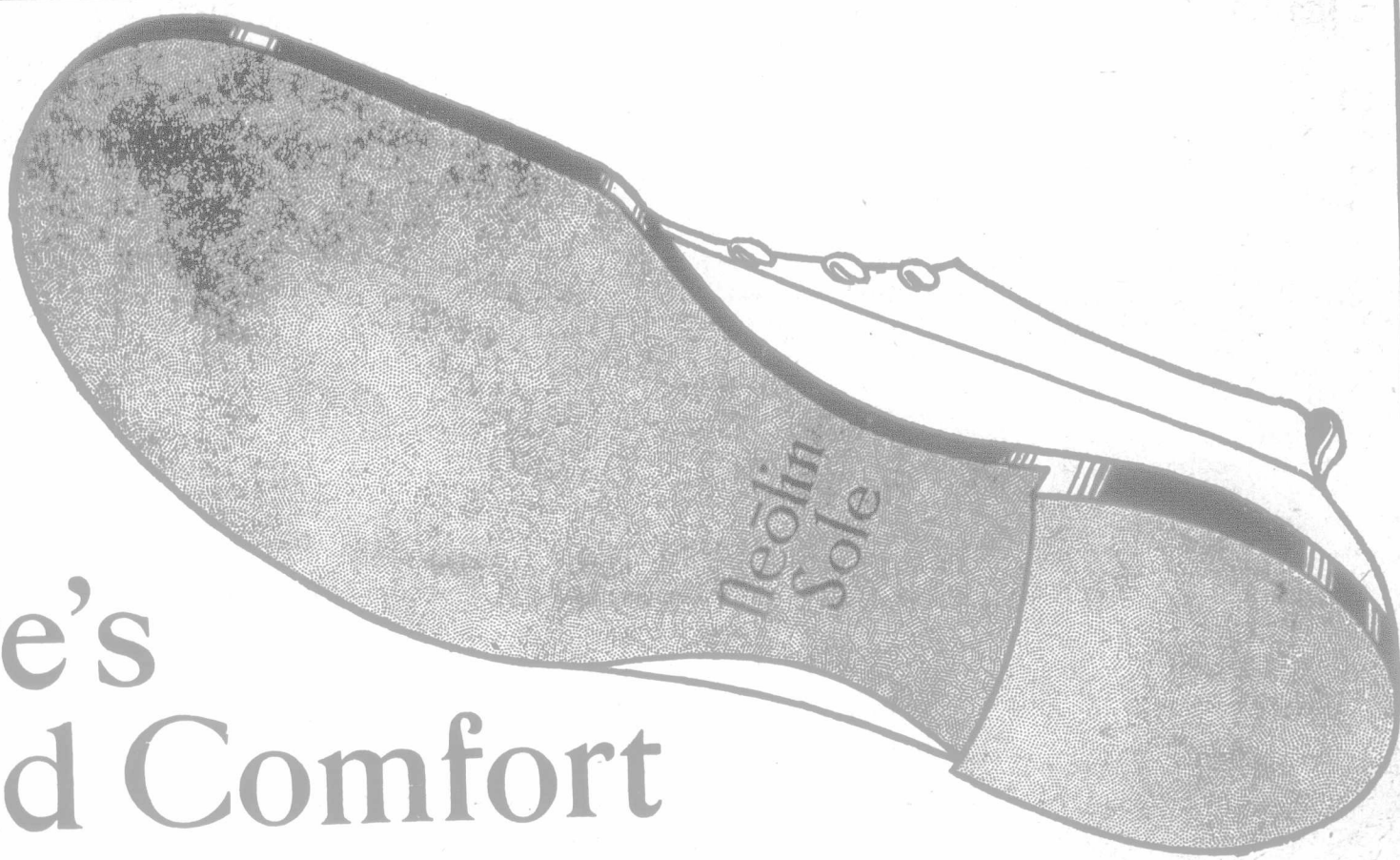


See advt. also on page 1431

Cream Wanted

We supply cans. We pay express charges. We remit daily and guarantee highest market prices. For prompt service ship your cream to us.

Mutual Dairy & Creamery 743 King St. W., Toronto, Ont.



Here's Solid Comfort

That's Neolin—solid comfort—and every man who's had Neolin Soles on his feet knows it.

Work boots *should* be comfortable boots. You wear them six days a week; you're on your feet most of the time.

Then, you want a boot that bends as you walk, a boot with some life to it, one that doesn't go smooth and slippery on the dry grass, one with a grip to it. Yes, and one that is water proof.

That's a boot with Neolin Soles.

You can get almost any grade of boot now with Neolin Soles. But there is only one grade of hard-wearing Neolin.

You can get Neolin Soles for men, for women, and for children.

You can buy half-soles to make your old boots new.

And you can save money on every pair you buy, because they wear longer than anything you ever had on your feet.

What's the use of dragging around stiff, heavy work boots. There's neither comfort nor economy in it.

Buy a pair of work boots with Neolin Soles. And be sure it *is* Neolin. Look for the name "Neolin" on the soles. There's nothing else that will give you the same comfort and wear.

The Goodyear Tire & Rubber Co. of Canada, Limited

Neolin Soles

New Seed Wheat for Fall Sowing

RENNIE'S

Special Offerings in Winter Wheat

Dawson's Golden Chaff Average yield in eight years test at Ontario Agricultural College, 48.3 bushels per acre. Grain white. \$3.25 a bushel; 5 bushels or over, \$3.15 per bushel.

Thousand Fall Rye Selected seed for fall sowing only. \$3.25 a bushel; 5 bushels or over at \$3.15 per bushel.

Abundance (Bald). Grain white, straw stiff, and stands up well. Very hardy. Winters well. \$3.25 a bushel; 5 bushels or over at \$3.15 per bushel.

American Banner (Bald). Heads bald, chaff yellow, grain white, straw strong, and winters excellently. By freight, \$3.25 a bushel; 5 bushels or over at \$3.15 per bushel.

Golden Coin (Bald). This variety has strong straw of medium height, and a long head filled with plump white grain. By freight, \$3.25 a bushel; 5 bushels or over at \$3.15 per bushel.

Ex. Whse., Toronto, Bags 65c. Extra.

THE **RENNIE** COMPANY LIMITED

KING AND MARKET STS.,

TORONTO, ONT.

FEEDS

When in need of anything in Horse, Cattle, Sheep, Hogs or Poultry FEEDS, write, wire or 'phone us. Carlots or less.

CRAMPSEY & KELLY

Dovercourt Road, Toronto

Canada Food Board License, No. 9-1917—No. 9-1779

"Produce and Save"

IS THE MOTTO

TORONTO Farm Equipment

IS THE MEANS

UNDER the tent at the Canadian National Exhibition, where the sign reads, "Ontario Wind Engine & Pump Company, Limited," you will find a collection of the finest and most modern devices for increasing production and saving time and labor on the farm.

The labor shortage is acute, and as it grows more machinery must be used to offset this shortage. It is to your best interests then to know the make of machines that will give you most service at lowest cost. Toronto Farm Machinery insures your crop against damage from lack of hired help.

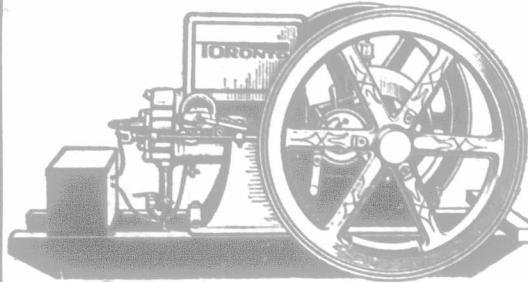
Don't fail to see our exhibit. Examine all of the machines carefully. Notice the details of construction, the care in manufacture, and learn the whys and wherefores. Next, compare them with the other devices you have seen, and we will wager your opinion will be that Toronto Farm Equipments are easily the winners.

Make your exhibition visit profitable by learning more about Toronto Farm Labor-Saving Machinery.

Three of Our Many Time, Labor and Money-Saving Machines

Our exhibit will show the latest and best in Windmills, Gasoline and Kerosene Engines, Stable Equipment, Pumps, Water Supply Outfits, Tanks (steel and wood), Silos, Ensilage Cutters, Grinders and Saw Frames.

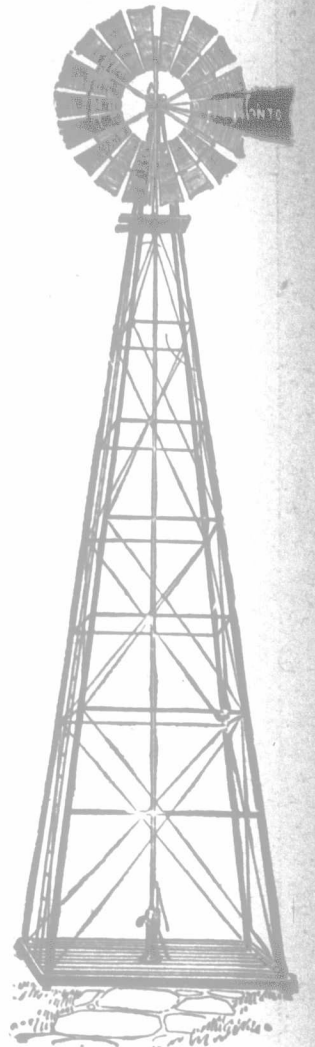
Gas Engines



This "Toronto Gas Engine" is reasonable in price, thoroughly reliable, and will give absolute satisfaction. It pays for itself in a short time by saving the time, labor and board of hired men. Don't fail to see it demonstrated.

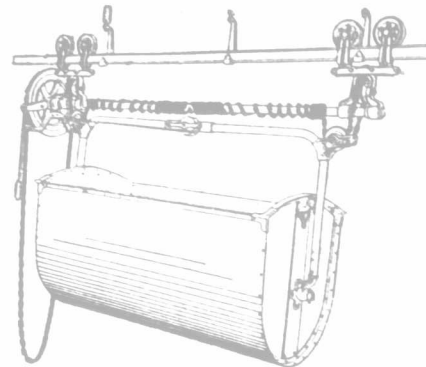
Free Power

Don't pump water! Let the wind do it for you. A "Toronto" runs noiselessly in the lightest breeze, and costs practically nothing for repairs.



Litter Carrier

A TORONTO LITTER CARRIER will do better and more economical work than six trips with a wheelbarrow. It will put the manure on the pile just where you want it. Don't wheel the manure up a slippery or icy plank. Save time and worry on this disagreeable chore. Use a TORONTO LITTER CARRIER.



THE ONTARIO WIND ENGINE & PUMP CO., LIMITED
ATLANTIC AVENUE, TORONTO

The BRISCOE Car

Along country roads or on the streets of town

THE BRISCOE

More than holds its own in Comfort,
Beauty and Speed

BRISCOE Economy plus Briscoe Service form a combination of compelling strength. Here is a car at a most attractive price which travels fast, climbs hills and covers lots of ground—all without undue upkeep expense.

Look over the Briscoe thoroughly and challenge its performance before deciding what car you should buy. Observe Briscoe roominess, comfort qualities, fine finish, and smart appearance.

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

Quick, silent, responsive, the Briscoe engine turns a small quantity of gasoline into a tremendous lot of power.

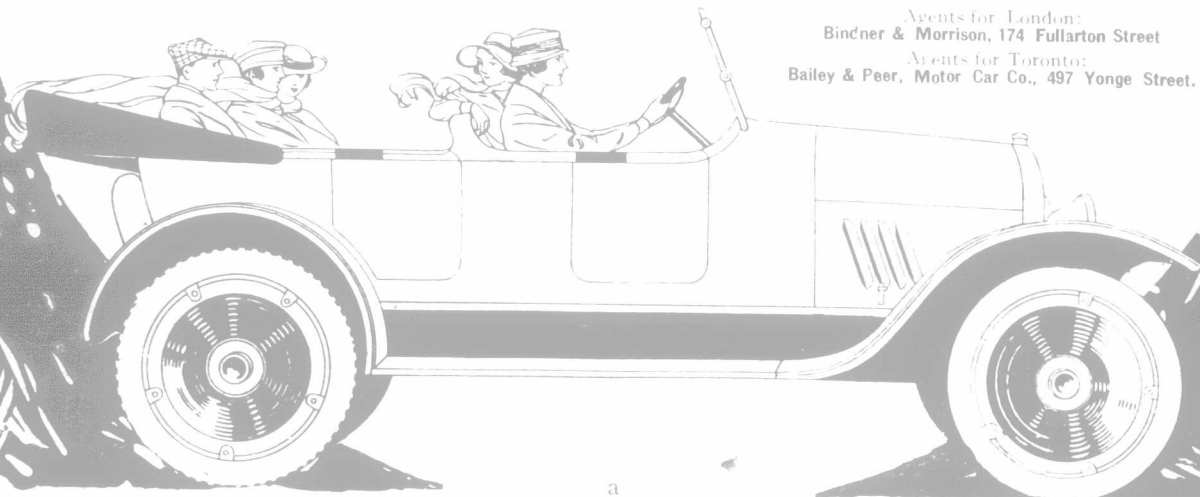
Power and Speed with True Economy

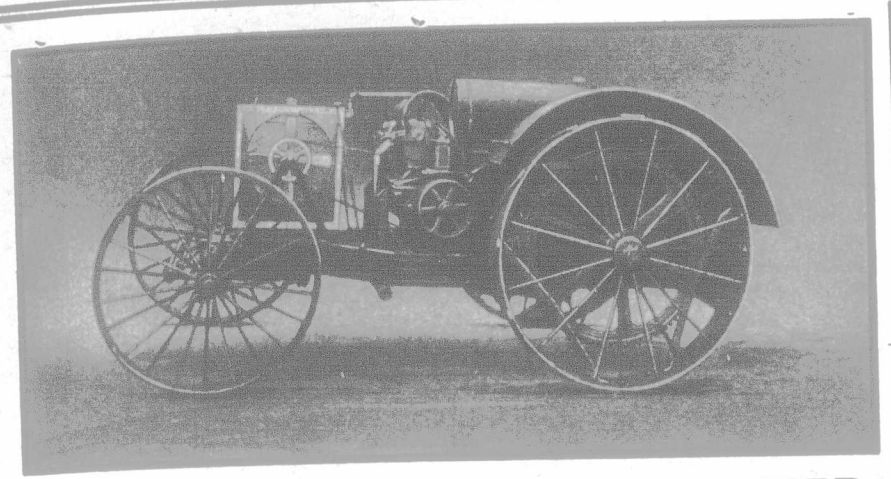
The Briscoe gives you power, speed and service—with true economy. Its beauty of line and fine finish set it quite apart from all other cars in the light-car class. Its price is less than that of any other car of equal sturdiness and good looks.

The following prices are all f.o.b. Brockville:
TOURING CAR, \$1,225 ROADSTER, \$1,205 SEDAN, \$1,825
Briscoe Pays the Tax

THE CANADIAN BRISCOE MOTOR COMPANY, LIMITED.

Agents for London:
Bincher & Morrison, 174 Fullarton Street
Agents for Toronto:
Bailey & Peir, Motor Car Co., 497 Yonge Street.





E. LEONARD & SONS, LIMITED
LONDON - CANADA

AGENTS FOR THE
HUBER Light-Four TRACTOR

Let No Man or Beast Do Work a Machine Can Do

Farm labor costs more than ever before. Feed is high and going up. Horses were never so valuable. Don't use skilled men and expensive teams to do work that can be done more quickly, more efficiently and more economically by a machine. Don't keep more horses than you need most of the year, just to have enough power during the rush season.

The Huber Light Four does the work of 4 men and 12 horses. Does it better. Easily pulls three 14-inch bottoms set 8 inches deep in any land where a good team can pull one bottom. Enables you to plow deeper, make a better seed bed and get more crops. Does it cheaper. Burns gasoline, kerosene or distillate. Economical in fuel consumption.

The Huber Light Four does most of the work horses can do and many things

that horses cannot do at all. Furnishes power for plowing, pulling the harrow, the seeder, the manure spreader; runs the ensilage cutter, buzzes wood, hauls loads, pulls stumps, helps in a road construction. Unlike most farm machinery, it works every month in the year.

The Huber Light Four is the most efficient unit of farm power. Built by manufacturers having forty years' experience in the making of tractor engines and threshing outfits. Delivers 12 h.-p. at the draw-bar, 25 h.-p. at the belt. 4-Cylinder Waukesha Motor, water cooled; never runs hot. Automatic splash lubrication. Cut steel gear transmission. Heat treated, running in oil bath. Hyatt Roller and Gurney Ball Bearings. In the 5,000-pound class—does not pack the ground. Turns in a six-foot radius. Road speed, 2 1/4 miles an hour in low; 4 miles an hour in high.

Be sure and see the HUBER at the Cobourg Demonstration, Sept. 17, 18, 19, 20
Also at Western Fair, Sept. 6 to 14, 1918 Write for our Folder.
"Doing the Impossible"



Plan to attend
**Western Ontario's
Popular Exhibition**

\$30,000 IN PRIZES \$1,500 added this year

Full Programme of Attractions twice daily
Two Speed Events daily Fireworks each night
Great Pure Food Show in Process Building
Plenty of Music, Education, Entertainment and Midway Merriment

WESTERN FAIR

LONDON CANADA
Sept. 6th to 14th 1918

N. B.—New automobile entrance cor. Dundas and Egerton Sts. Admission \$1, covers auto and driver, including parking of car.
Prize List, Entry Forms, Application for Space, and all information from the Secretary
Lt.-Col. W. M. Gartshore, President A. M. Hunt, Secretary

Over Half a Century of Success

NORTHERN ONTARIO

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

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

For full particulars as to terms, regulations and settlers' rates, write too:
H. A. MACDONELL, Director of Colonization, Parliament Buildings, Toronto, Ont.
G. H. FERGUSON, Minister of Lands, Forests and Mines.

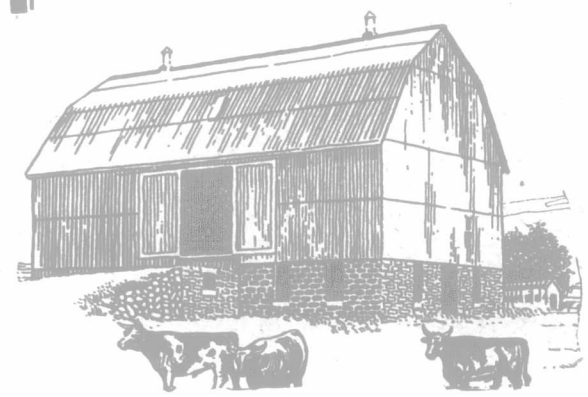
-need a Barn?

See us at Toronto and London Exhibitions

EACH year the sales of STEEL TRUSS BARNs increase. This year has outstripped last year. Such volume of business can only be won through the sheer mint and outstanding service of our product.

We are supplying the farmers of Canada a barn that saves them money in handling their crops and stock. It is their workshop—and a better workshop than they have had before.

There are no stronger arguments in favor of STEEL TRUSS BARNs than the letters of owners.

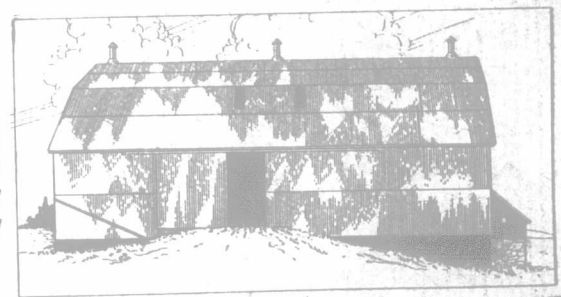


Mr. John A. Swance, R.R. L, Salford, Ontario, wrote a few days ago, saying:

"I am well pleased with the barn, and everything is as you agreed. You can send anyone along you like to see it, and I will do all I can for you."

Mr. John Wilson, R.R. 1, Ingersoll, Ont., writes:

"I wish to thank you and your men for the courtesy and promptness which you showed in rushing both material and work on my barn."



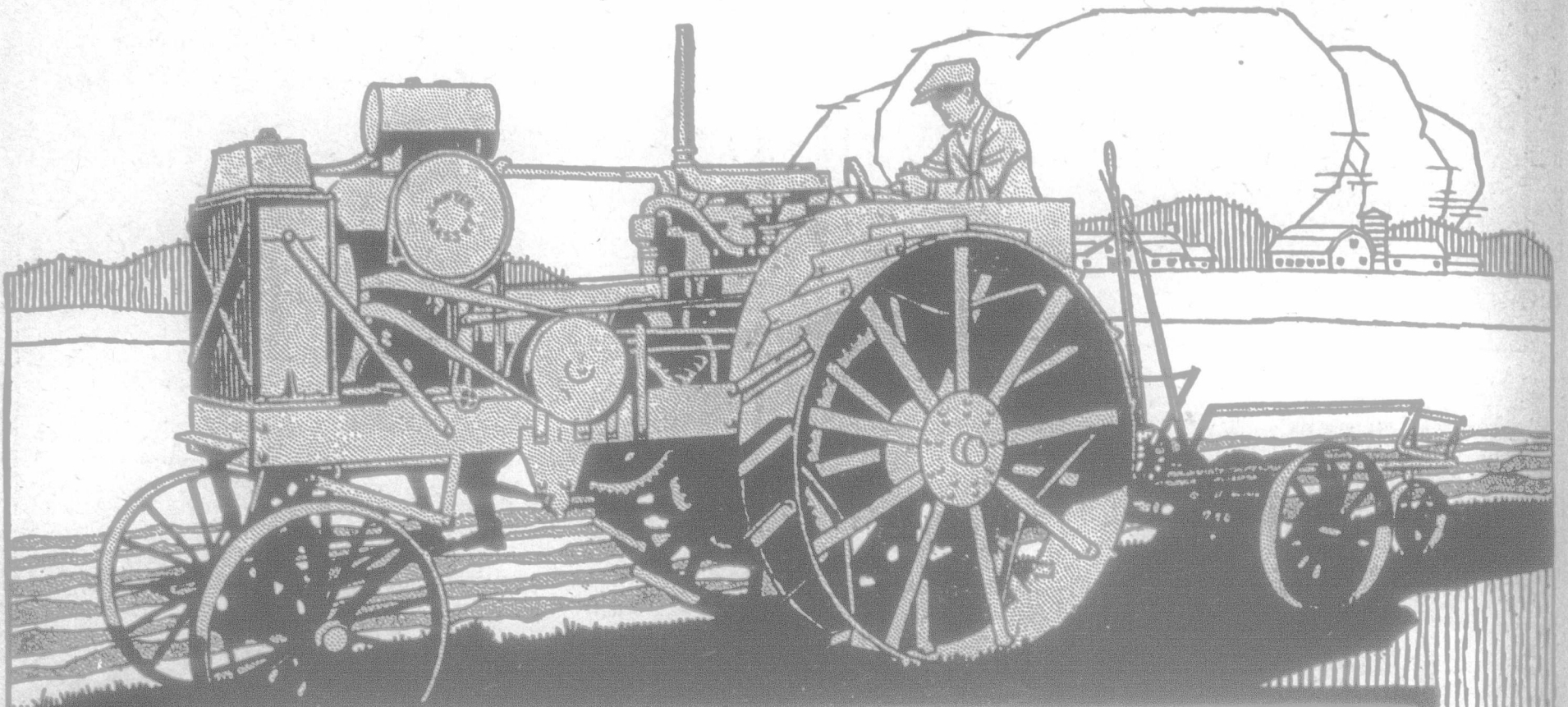
Do you want such barn satisfaction as this? Plan NOW to build next spring. You are getting higher prices than ever now. You can afford, and you need, a good barn. Write us, or see us at the Fair.

The Metal Shingle & Siding Company, Limited

Preston
Winnipeg

Toronto
Saskatoon

Montreal
Calgary



A BUILT-TO-MEASURE TRACTOR FOR YOU

WHEN buying a tractor there are three important points to consider: Will it do your work? For how long a time will it give good service? How much will it cost for operation and up-keep?

The tractor that is best suited to your work, that gives you the longest good service, and that costs the least for operation and up-keep, is the one *you* want.

Your tractor needs have been measured by us. Our 82 years contact with the development of Canadian agriculture have enabled us to do this well. But what is more important, our experience, ability and equipment enabled us to *build* the tractors best suited to the needs of Canadian farmers.

We found one tractor was insufficient to meet the needs of all. So we built four sizes: 11-22, 17-34, 20-40 and 27-50. But the principles behind each of these sizes are the same. Back of each tractor is the Sawyer-Massey reputation, guarantee, and a service that really serves.

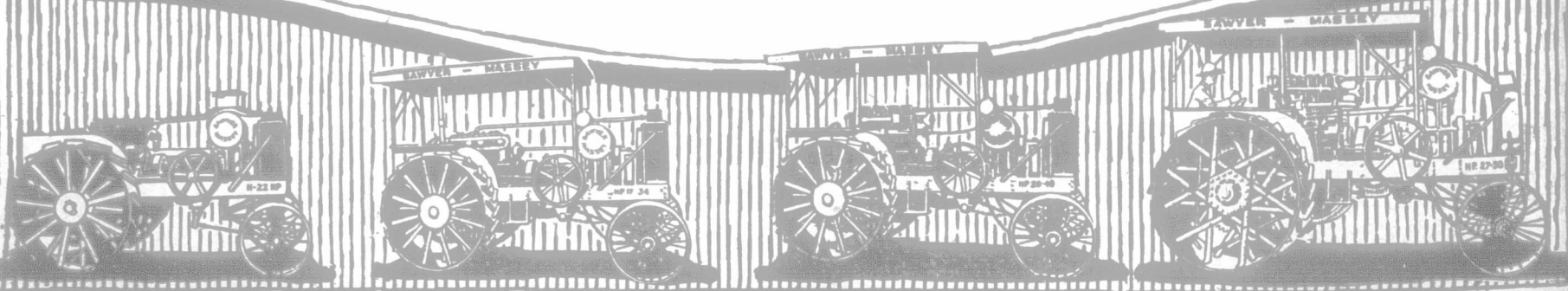
All Sawyer-Massey Gas-Oil Tractors have 4-cylinder motors; 4 wheels; air cleaning equipment; power transmission direct to *both* rear wheels, on which 75% of the tractor weight rests, assuring maximum power at the draw-bar and complete traction in all soils. Big radiator capacity and perfected mechanical cooling prevent overheating.

Bulletins describing Sawyer-Massey Tractors forwarded on request. In writing, specify the size in which you are interested.

SAWYER - MASSEY COMPANY LIMITED

Head Office and Factory: HAMILTON, ONTARIO
Branches and Warehouses:
WINNIPEG REGINA SASKATOON CALGARY

If you are interested in Sawyer-Massey Steam Tractors or Threshers, we will be glad to supply full information.



Four Cylinder Sawyer-Massey Gas-Oil Tractors *Kerosene Burning*

The Farmer's Advocate and Home Magazine

PERSEVERE
AND
SUCCEED

ESTABLISHED
1866

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

LONDON, ONTARIO, AUGUST 29, 1918.

1353

LIII.

EDITORIAL.

Treat the seed wheat.

Allow the hens and chickens to glean the grain fields.

Care should be exercised in feeding new oats to horses and cattle.

Pregnant sows should be out on grass, but they will require grain as well.

Before threshing clean out the granary, stop up the leaks and seal over mouse and rat holes with tin.

No one knows when the war will end, but ultimate victory for the Entente Allies was never more certain than at present.

Experts in many branches of agriculture have contributed to the different departments in this issue. Do not fail to get acquainted with their views.

The vacation is almost over, and the school bell will soon be ringing. Parents should share with the teacher and trustees the responsibilities of the rural school.

When threshing see that the concaves are close enough to get all the grain out of the straw, and that the screens are kept clean. Speed in threshing will not compensate for lost grain this year.

Show this issue, our annual Exhibition Number, to your friends or neighbors who are not subscribers to "The Farmer's Advocate." We will appreciate the favor and they will, no doubt, enjoy reading it.

Three weeks ago we saw a field being prepared for fall wheat in Bruce County. It had been cultivated and harrowed seven times, and it would get still more preparation before seeding. A good seed-bed pays well.

Red tape, the bane of progress and efficiency, is being done away with in regard to "channels of communication" or, in other words, the Prime Ministers of Great Britain and the Overseas Dominions may communicate directly with each other without going through other departments of Government. Red tape becomes a nuisance when officials are slow getting their feet off the desk and jobs are waiting.

We recently purchased a four-tined dung fork for which we paid \$1.60. It had been in stock for some time, and the merchant had neglected to erase an earlier price, which was 95 cents. In other words, an extra profit of 65 cents was made on this fork "on account of the war." Such an attitude on the part of the trade would be easier to tolerate if we had the least suspicion that stocks laid in at war prices would be sold to the public at peace prices, when peace comes.

Our Exhibition Number.

With the beginning of exhibitions in Eastern Canada we present, in this issue, our annual Exhibition Number for the approval of our readers. No pains have been spared to make it a success in regard to editorial matter, and expense was not considered when securing illustrations. Space will not permit of even a resume of what it contains, but readers will not, we believe, neglect any department for there is something for everybody, and it has been prepared by those having an intimate acquaintance with the subjects in hand. If you are pleased with this number tell others; if not we should like to have you tell us.

The Harvest Leave.

The six weeks harvest leave granted to soldiers in training, who could be of service in the country, was an Order which will be considered wise and in the interest of Canada at large. Many of these boys will go back to farms which have been undermanned all summer and upon which the harvest would entail difficulties of considerable magnitude. The West is asking for 10,000 laborers or more from Eastern Canada where experienced help is already too scarce, but the wheat crop must be harvested and threshed with the least possible loss. The soldiers in the making who, for a time, lay aside the accoutrements of war and take the fork in hand will be rendering a war service that will have a good effect. The busy season on the Prairie will probably last well into November as it will in Ontario, where silo filling and threshing spoil a good deal of time in the fall. Through the corn-growing districts of Eastern Canada there is a heavy crop to handle, and it is no job for old men or farmerettes. The latter class of help has been greatly appreciated at certain kinds of work this summer and all credit is due them for the part they have played, but when it comes to silo filling and threshing, strong and willing men are an absolute necessity, and without which the country as a whole will suffer. With next year's harvest in mind it appears that the six weeks' leave could well be extended to expire not before November 1, if the military situation will at all permit. When we are harvesting, threshing or storing this year's production we must also be preparing for the crop of 1919, and little fall plowing will be done if farmers alone on 100 acres must spend from 2 to 4 weeks at silo filling and threshing, and fall plowing is a necessary preliminary to a large acreage next season. There is no desire to withhold reinforcements from the brave men who have held the line for almost four years, but if the conditions, as they now exist, will permit of this extended leave to men who will not probably see the trenches before spring at any rate, they can be of incalculable assistance in another field. This concession on the part of the Government would indicate an appreciation of agricultural conditions and a willingness to assist in the production which is constantly being urged. Canada's finances will run low without abundant harvests, so it will be wise to do everything possible to ensure for 1919 a crop like that of 1915, which followed a very lean season. This matter should be given very careful consideration, for at no time would the men drafted into service be missed more than between now and November.

A Blow to Oleomargarine.

Reference to the article in this issue by J. A. Ruddick will reveal to thoughtful dairymen that if they are mindful of the quality of their product they have little to fear, in all probability, from the sale of oleomargarine in Canada. It has always been conceded, we believe, that, poor as oleo is as a substitute for good butter, it might benefit the dairy industry to some extent at least by driving off the market large quantities of poor dairy butter. The evidence in the article referred to, however, goes to show that as a selling proposition oleo has not panned out as well as was feared by the dairymen and as was expected by the Canada Food Board. The latter found themselves urged strongly to secure the benefits of oleo for the relief of the poorer classes, and they did so against the advice of those who had studied the question from a health and food standpoint.

The result can scarcely afford much consolation to the Canada Food Board, since consumption has been less than ten million pounds, all told, in comparison with one hundred and forty million pounds of butter from the time the bars were let down until July 31. The first curiosity of the people has apparently been satisfied and, in spite of a handicap in price of from five to ten cents per pound, butter has more than held its

own. Instead of increasing rapidly in popularity, dealers inform us that the sale of oleo has steadily decreased after the first rush, and that complaints are now common from consumers. We doubt, after all, whether the poorer classes have used oleo extensively to reduce the high cost of living. The fact that with a total quantity available for consumption of slightly over ten million pounds, there are still in storage large quantities which cannot be disposed of, would seem to bear this out indisputably. Moreover, taking the statements of the manufacturers at their lowest probable value, there is in this stored product from 10 to 20 per cent. of high-class butter which stands a good chance of being spoiled. Such an occurrence would certainly be inexcusable since dairymen are assured of a good market for export butter, and the policy of the Canada Food Board can scarcely be in accord with such waste. If the people want oleo their wants should be considered but why waste good butter in a product that the people do not want?

The Live Stock on Government Farms.

It is important that breeders of live stock have the proper conception of beef type, and an understanding of what may reasonably be expected of the different breeds in the way of production. That is to say, our ideals must be endorsed by the majority, if the live-stock industry of Canada is going to measure up in any way commensurate with the possibilities of this country. We must agree more or less to some standard, and in the actual practice of breeding try to duplicate those masterpieces of the animal kind that are adjudged nearest to perfect and the most worthy of imitation. Again, there is a possibility of improving on the generally accepted ideal in excellence, conformation or production, but this glory seldom comes to more than one or two men in a generation, and usually to those endowed with considerable wealth or exceptional skill and acumen. The average progressive breeder will, in the main, attempt to produce counterparts to the best in the land, or at least to approach them as nearly as uncertainties and occasional disappointments of breeding will permit. Where then, are we to look for the pattern?

Our college herds and flocks, or those maintained on experimental and demonstration farms are the logical models of breed type and excellence in this Dominion. But unfortunately for the breeders at large and for the public institutions themselves this responsibility has not been appreciated by those in charge, nor have they, in this regard, done their part in directing the fortunes of the live-stock industry. No particular institution can be singled out nor should a provincial construction be put on this statement. Throughout Canada the majority of our public farms are, with few exceptions, behind the progressive and constructive breeders in the quality of their studs, herds and flocks. Some of the smaller institutions have done well, and it is where the largest appropriations have been available that the disappointments are greatest. True, they have conducted experiments and disseminated valuable information, but stockmen look to them for more than that. On many such farms some particular breed or class of stock has occupied a favored position and has been fostered and improved, but that is not sufficient, there is a feeling among stockmen, and it is growing, that instead of leading as they should, our public institutions are following, and even lagging so far behind as to be almost out of the race.

It would be unreasonable to look for sires the equal of Baron's Pride, a Whitehall Sultan, or a Perfection Fairfax at the head of all the public studs and herds, but it will be granted generally that the type, quality and health of the animals representing the various breeds at such places should be of a higher standard

The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

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throughout than it is. This statement is not made in ignorance of what the maintenance of several breeds entails. It is an easy matter to operate along one line only compared with the housing, breeding and rearing of all classes of live stock and many breeds of the same. This difficulty, no doubt, has handicapped the live-stock departments of our colleges and experimental farms. The chiefs have had an uphill road with insufficient help and inadequate funds. Breeders generally do not take these circumstances into consideration, but are prone to criticize the public-owned individuals of the breed they favor, and, moreover, they feel that an injustice is being done them and their interests. In many cases a reasonable appreciation of the obstacles and difficulties to be met with would engender far more leniency.

It does not seem too much to expect of educational institutions that they should carry on constructive breeding with one breed at least, of horses, cattle, sheep and swine, and have representatives of the other leading breeds good enough to convey the proper conception to students, visitors and breeders generally. More than that, it would not be bad practice to exhibit at the larger exhibitions in some manner decided upon with the breed associations, exhibitors and fair boards. It would be good policy to have this understanding in order to forestall any unpleasant attitude the private exhibitors might adopt when asked to compete against public-owned animals. It seems desirable that the colleges and experimental farms should lead out their best so the public may know what to follow in regard to live-stock ideals.

Fall Fair Philosophy.

BY ALLAN MCDIARMID.

I was talking to a neighbor a short time ago about how hard it was to keep any institution or organization alive in the country. "Anything that brings in the money," I said, "in a way not too round-about for the comprehension of the average farmer will have his support. He'll put his whole heart into it. Something such as his cheese-factory or creamery, for instance. As long as they bring in profitable returns they're sure of a healthy existence. But when it comes to supporting some 'uplift' scheme, as they call them in the cities, such as 'farmers institutes', clubs, 'co-operative societies' and so on, the interest soon slackens, if it is ever really aroused, and the organization, whatever it was, dies in the usual manner. Do you remember when the Patrons of Industry were making a stir around here

about twenty years ago? The organizers who made the biggest success in starting 'lodges' in the different communities were the ones who emphasized the manner in which money could be saved by buying from a 'Patron' store, which had to sell to them at a certain fixed advance over cost at wholesale. While this little sort of a side-line, as it might be called, was fulfilling its purpose, the 'Patrons' prospered and began to make even the professional politicians sit up and take notice. They began to wonder if it was possible that farmers were going to join their forces and make themselves felt in the world at last. But a change came to the country. Financial conditions improved and from that standpoint the 'Patrons' lost their usefulness. And when they could no longer help him to make money the farmer lost sight of anything they proposed doing for him in the way of social improvement or political influence or in a general elevation of his standing among the business men of the country. This was the original and main purpose of this, as well as of many other farm organizations of the past. But the most of those on whom these societies had to depend for support couldn't see the importance of this object, or the variety of objects, and consequently lost interest and another chance was given the people of the towns to say that the farmers could never stick together."

"Well," said my friend, to whom I had been complaining, "there are some other things besides clubs and co-operative societies that lose their hold on a community, so you needn't be surprised at what you have mentioned. What about the County Fall Fair? What we long ago used to call the 'Cattle Show'. A good many of them are finding it pretty up-hill work to maintain their existence these days. In spite of Government bonuses and that sort of thing they are gradually losing their hold, and unless some change comes it looks as though they were going to follow the example and meet the fate of the Township Fairs, that were common enough a number of years ago but which are few and far between to-day. If we want to get a parallel case from which to help us draw conclusions we might find it in the 'Country Church'. There is another institution that is losing its hold on the people and its influence in the community, for some reason or other. If we knew the cause in the case of the Church it would probably give us an idea as to the cause of the same symptoms showing themselves in our other organizations. And I think," he went on, "that I could put my finger on the spot where the whole trouble lies, although I suppose it won't do any good so far as improving conditions are concerned. It's easier to see what the matter is than to give the medicine. But, in so far as I can make out, this 'going back' that we have been talking about, that is showing itself in our societies, clubs, churches, and in our country fairs, is due to the fact that those responsible for the maintaining of these institutions, that is, the organizers and officers, are not putting an element of interest into them that will get the attention of men and women, and that will hold it after it has been secured.

"The Church to-day is suffering because her ministers have nothing new, or, of what they are convinced themselves is of vital importance, to offer to the people. This applies particularly to the church in the country. The church in the city that is in a position to secure the services of a preacher who can interest his hearers and impress them with the importance of his message has no fear of having to close its doors because of lack of patronage. And human nature is just the same when we come to deal with it in connection with other things, such as Fall Fairs, for instance. We've got to interest them there if we expect them to keep on attending year after year. If we don't they'll give their time and money to the bigger organizations that do interest them and who make it their chief aim to accomplish just that.

"The most of people, when they take a day off from their work, want to be amused, which is practically the same thing as being interested, and if we don't satisfy them we had better close our doors. It's all right to educate them up to higher standards in the breeding of live stock of all kinds, but very few people will willingly spend the best part of a day looking at a number of rows of cows, horses, sheep and pigs, no matter how good they may be, when they have seen practically the same thing every day for the last twenty years or more. What they want is something else, something different. And we've got to give it to them. As an educator our Fall Fairs won't amount to much unless we can induce the public to come and be educated. To expect them to come for just this purpose is asking too much of human nature. Very few of us went to school for the fun of it. We went because we were compelled to. But we can't compel people to come to our Fall Fair school. We've got to coax them.

"There are thousands of varieties of entertainments and amusements that are to be had, at a certain expense, of course, but they can be had, and if we're willing to undertake the small trouble and make the necessary outlay there's no reason why our country exhibitions should not improve from year to year, instead of always being on the verge of bankruptcy, as it were. To send a crowd home satisfied with the day's outing is a guarantee of success for the future and ample compensation for all the effort we have been called upon to make. It takes a good deal of the missionary, or philanthropic, spirit to lead one into taking the office of president or director in one of our Agricultural Societies, but I guess it's the doing of something worth while that counts, maybe, and not in how much we're paid for it."

"Yes," I said, when my friend had finished talking, apparently, "but it's about as hard to get people to believe that, as it is to get them to come to our 'purely educational' Fall Fairs where we may have the opportunity to impress them with the possibilities of farming when it is properly connected up with hard work."

"And some head," finished my friend.

Nature's Diary.

A. B. KLUGH, M. A.



The Little Red School.

The little red school at the cross-roads or at the edge of the woods will soon open its door once again, and "teacher" will soon be engaged in the laudable and arduous task of turning the tots of to-day into the good Canadian citizens of to-morrow. The teacher in the little country school plays a larger and more important part in our national life than she or he, (and at the present time it is more likely to be she than he), may realize. In the city schools and in those of the larger villages the child changes teachers as he progresses from grade to grade, or even in the same day as he passes from one subject to another. But in the little country school he has the same teacher as long as she remains at that school, and thus her influence is the only scholastic influence which will play a part in moulding his character. Thus great is your responsibility, ye rulers of the little red school!

The teacher in the small school is perhaps sometimes inclined to think that she is hampered in her work by the conditions of her environment, and to feel that with more elaborate equipment she might accomplish more. This may be true in certain subjects, and again it may not, but it is certainly true that there is one phase of education for which she is far more advantageously placed than her fellows in the town—the teaching of nature-study. That the teacher in the rural school should realize the great and far-reaching value of nature-study is of the utmost importance. To state a basic principle—the main aim of education is to fit one to one's sphere. Now the sphere of the great majority of the pupils of the little red school will be in the midst of nature, and a true understanding of, and a true sympathy with, all the varied aspects of nature will be of incalculable value to them. If the teacher succeeds in awakening a love for nature she is leading the pupil along such a path that it may be said of him:

"And he wandered away and away, with Nature the dear old nurse,
Who sang to him night and day, the rhymes of the universe.
And when the way seemed long, and his heart began to fail,
She sang a more wonderful song, or told a more wonderful tale."

The pupil who grows up with a love of nature in his heart will have a tie which will bind him very closely to agricultural pursuits and he will not readily desert the country for the artificiality of the city. Thus nature-study will tend to make farmers, but it will do more than this, it will make better farmers. For nature-study has a practical as well as an aesthetic side—it imparts much information on the growth of plants, the life-processes of animals, the activities of insects, and the names and economic relationships of many forms of life, all of which is of very direct application on the farm.

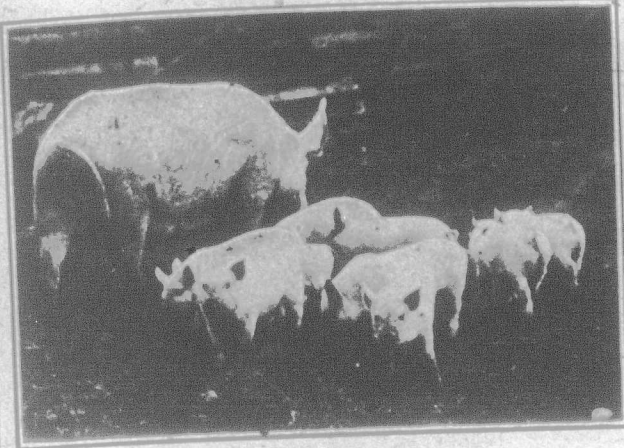
There is another aspect of nature-study, an aspect which is often entirely overlooked and yet one of such vital importance as to render the subject of great value for its sake alone—it teaches the pupil to observe for himself and to reason. It is unfortunately true that most of the subjects taught in our system of education afford no scope for the training of the powers of observation. Yet the faculty of accurate observation is of the utmost value in any walk of life. We have only to look about us to see how rarely this faculty is developed, how common it is to meet people whose eyes see not and whose ears hear not. There is such a general dependence upon books in our educational system that the tendency is for the pupil to come to rely entirely upon the written word, rather than to learn to see and reason for himself. It is therefore one of the great benefits of nature-study that it leads the pupil to acquire at least some of his knowledge at first hand and to learn to weigh and balance every statement, either written or spoken, which he comes across. This faculty of independent thought is at once an antidote for the propagation of loose and careless statements and leads to the abolition of silly, superstitions and groundless prejudices.

So far I have dealt entirely with the effect of the teaching of nature-study on the pupil—now a word in regard to its effect on the teacher. Nature-study when taught in the proper way makes the teacher the companion of her pupils—they are fellow-seekers after the great truths of nature. Some teachers I know are afraid of the subject, they realize how little they know about it and consequently fear that when the pupils come to find this out they will lose their respect for the infallibility of her erudition. The teacher is so used to "knowing it all" in the ordinary subjects, that she becomes unused to, and indeed afraid of, saying "I don't know". Now this is an entirely wrong attitude in nature-study, and we find that the greater the learning of a scientific man the more simply and readily he says: "I don't know" when asked a question beyond his knowledge. He knows how vast is the region beyond man's present knowledge, and he openly acknowledges this fact, yet he never loses the respect of his students.

Another effect upon the teacher in the little red school is that her interest in nature will enable her to find relaxation and enjoyment in her spare time, that she will come to love her locality, and that she will not yearn for the tinsel of society and the "movies" when nature provides for her the glorious moving picture of the seasons.

AUGUST 29, 1918

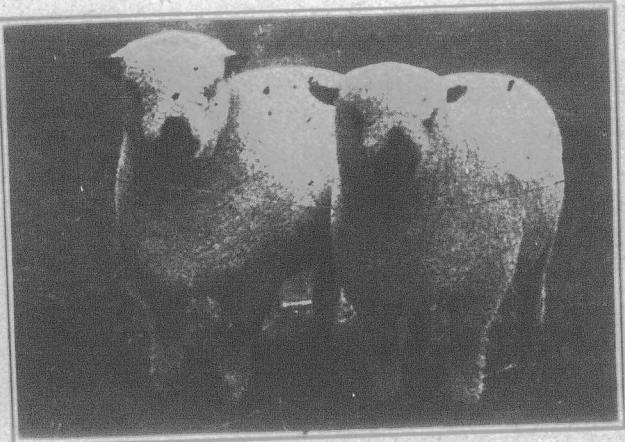
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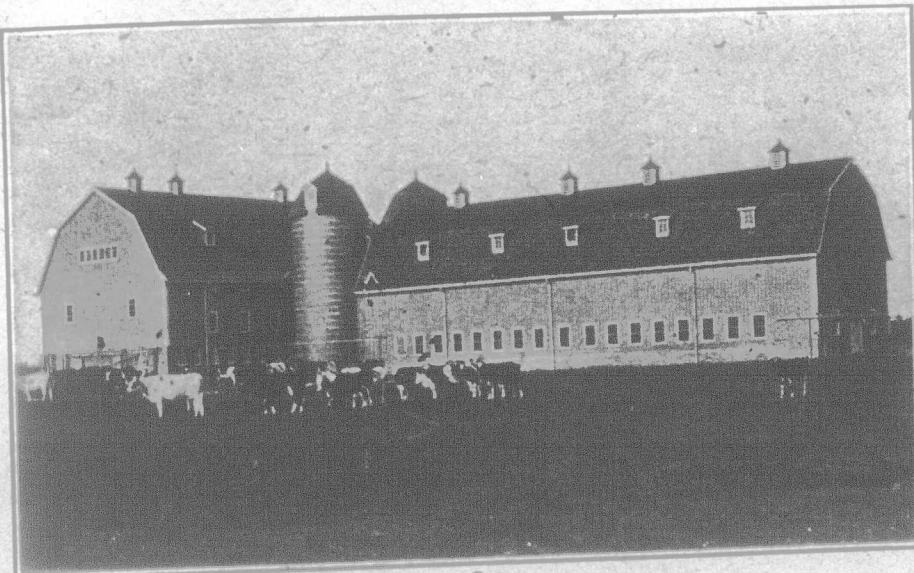
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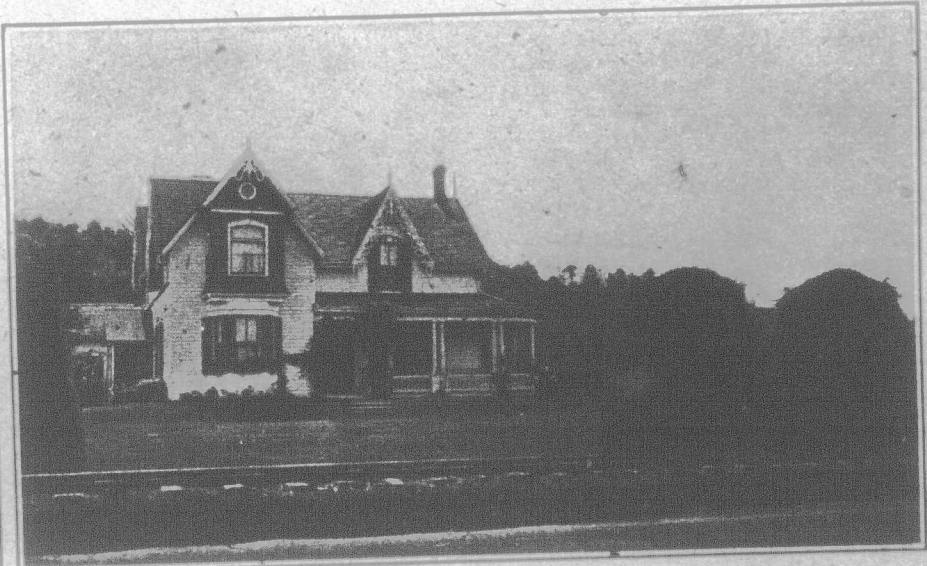
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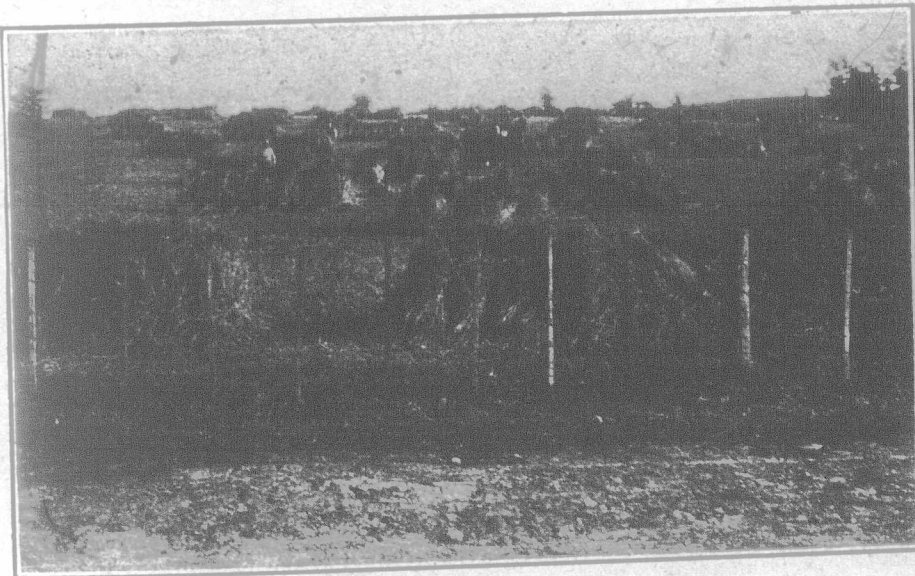
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THE HORSE.

Can the Hackney Come Back?

BY OUR ENGLISH CORRESPONDENT.

It is a pity the Hackney is a back number in Canada. I am afraid that, except for the show-ring lovers and devotees of the breed in America and the Argentine, the Hackney is also a decaying force in those countries. It is only in France, Italy and Spain, and even in far-off Japan, where the Hackney is used as part and parcel of the governmental schemes of army-horse raising, that the breed is flourishing. In England—the true home of the breed—the Hackney went well nigh out of fashion, as a horse of any proved usefulness, except that of running once a year at the end of a rein in a dim and dismal London hall, and generally doing "stunts" in harness at the annual International Horse Show. The war came and killed the hippodrome game, and I think helped to prove to thinking Hackney men in England that the breed had only one chance to "come back," and that was on the army ticket and as a potential part of the equine machine for turning out military horses, be they actual remounts or light draft horses.

The fact that the Italian Government keeps on coming to Yorkshire for Hackney stallions with which to manufacture war horses, and the accepted fact that the French Government built up one, if not two, distinct races of utility horses by the aid of the Hackney, made Englishmen realize that if they were to prevent the breed from short-circuiting, or fusing, and going into thin air, something must be done to encourage the raising of big, strong, robust, flat-boned, well-set-up horses, not too extravagant in their paces, but the stamp to get remount or light drafters for army purposes. At the two last shows of the English Hackney Society there have been classes for stallions of this character, and that there are still more of the stamp in the country I feel assured. Now these classes have so far produced strong, up-standing horses, with short backs, well-coupled body pieces, shoulders that denoted riding abilities (as well as the breed's undeniable driving qualities) flat, hard bone (not the round, gun-barrel sort); indeed, a horse of size, substance and quality, with an undoubted ride-and-drive look about him. The Council of the English Hackney Society have realized at last that the breed can come back on the stamp of horse I've attempted to describe herein—a general-purpose horse that may be useful in producing officers' chargers and even getting stock for light draft purposes, and a breed or a type that we are very short of in Britain. Gradually men in the game over here are being convinced that the pretty-as-a-picture Hackney, i. e., the show-ring Hackney, which did nothing else but potter round pot hunting at our agricultural shows, "has had its day and ceased to be," as Tennyson puts it.

In the British army to-day doing good work of all kinds (even since the days of 1914) are many hundreds of Hackneys. They are performing all sorts of duties—some even are winning prizes as jumpers in the soldiers' sports which take place behind the lines. But their chief work lies with the guns, and they have never turned it up but gone on about their work with a lion's heart. Some British breeds of haulage horses have had their "soft" spots discovered in this Armageddon, but not so with the Hackney. The whole history of the breed proves undeniably its hard wearing qualities. Put it on to blood that is responsive—that has some fire and pluck in it and that is not cold—and the Hackney will get any type of utility horse a nation may require. I have great faith in it as a potential raiser of army horses. The late Sir Walter Gilbey swore by the breed for that reason, and he sold the foreigners many stallions which were to go to Governmental HARAS and to be used in the interests of utility horse raising.

We have not yet finished in England with our experimental attempts to discover more Hackney stallions bearing the stamp of ride-and-drive appearances. There are still many horses of the stamp in the Kingdom but they require finding. H. R. H. the Prince of Wales has perhaps the best stallion of this stamp in Britain, to wit, Findon Grey Shales. He is getting some wonderful sons.

The spectacular Hackney will be bred, of course, in the hope entertained by some that the days of the hippodrome will return, when the war is over. But if I am any judge of the temper of the English nation, I read the future this way, that there will be no more garlanded olympian festooned equine stunts, suited only for the frolics of the idle rich. The horse shows of the future must be practical and to encourage the raising of utility stock, not unsexed males and barren females, fit only to meander round the tan bark with an action that was dangerously like string-halt, but always reminiscent of a monkey on a stick. There are some, however, who say that if we have a league of nations we shall not have to breed any more war horses. But don't you believe it. As long as Germany's war spirit remains unbroken the danger of another conflict will always be with us, and horse raising (i. e., growing stocks suitable for war purposes, at a push) will always have to be carried on.

The Hackney can come back as a ride-and-drive horse. It was that before it was spoiled in the showing, and before its constitution was ruined for the sake of quality. It can come back on its hard-wearing proclivities, on its strong shoulders; on its muscular, well-coupled bodypiece; on its hard, flat, steely limbs and its free action. The strong Hackney is the type that will stay with us—the pretty-as-a-picture, velta-quality-like, and only fit to run about at the end of a bit of rope line, that is the sort of Hackney which must go into the limbo of things forgotten. We are moving

in this matter in quite the right way over here. It is passing strange, however, that it has taken us forty years to realize the possibilities of a breed we have sold liberally and with open hands to the foreigners. But John Bull is always learning—even if it is a slow "learn."

The Scottish Stallion Hiring System.

BY ARCHIBALD MACNEILAGE.

The Scottish system of hiring Clydesdale stallions is of very long standing. In 1759 the Society of Improvers awarded a prize of fifteen guineas at a show held in Edinburgh to William Whyte, tenant in Bows, Polmont, for a bay stallion called "Red Robin." In 1785 a horse named "Blaze", owned by Mr. Scott, Brownhill, Carstairs, Lanark, won first prize at a show held in the Grassmarket, Edinburgh. As early as 1830 or thereby premiums were paid by horse-breeding societies in Kirkcudbright, to members of the Muir family in Lanarkshire, for horses of theirs to travel in the Kirkcudbright and other districts in Galloway. Notices of these hirings and of horses which won these premiums are to be found in the introductory volumes of the Clydesdale Stud Book, published in the close of 1878 and in the beginning of 1880. The terms usually paid in those far-off days were a premium of £30 to £40, with an agreement on the part of the Society hiring to find so many mares—usually seventy or eighty for a horse four years old or upwards, or about sixty for a horse rising three years old. Judging by old stallion cards or bills or advertisements that have come down to us, the service fees were moderate, about 30 shillings altogether plus 2s. 6d. to the groom. The 30s. might be paid in full for a foal, or divided into two payments of 10s. at service and 20s. when a foal was assured, or in some other fashion. At no time so far as we can find did the system prevail in Scotland which holds generally in Canada of payment absolutely by results. The meaning of that is that Clydesdale breeders in this country have generally recognized that the sole responsibility for barrenness should not be laid to the charge of the stallion. Horses with well established reputations have frequently been offered to the public at a fee payable wholly at service, but in forty years' experience I cannot recall a single case in which an owner has offered his horse to the public at a fee payable wholly when a foal was assured. The nearest approach to this has been seen when the owner of a horse which began his career with an indifferent reputation as a stock getter desired to re-assure the public that the horse had become quite fruitful. Under such conditions I have known a horse being offered for public service at some such terms as these: £2 payable at service, and £8 additional when the mare was proved to be in foal. There is an element of fairness in this division of the service fees. It is, however, a mistake to put the major portion of the charge on the service fee and the minor on the foal money. The reverse order is certainly fairer for all parties, and the owner of any horse with an honest reputation would never hesitate to accept terms on that basis.

The organization of horse-breeding societies varies greatly. Since, however, the institution of a Government Department of Agriculture in each of the three Kingdoms, and the institution of the system of Government premiums for horses passed sound by Government examiners and placed on the Government Register, there has been developed a greater uniformity of organization. Of course, the Government premiums are only paid for horses to serve mares belonging to tenant farmers paying the smaller rents, that is farmers or smallholders occupying not more than 100 acres, or paying not more than £100 of annual rent. The object of the Government scheme is to encourage such men to make use of a superior class of horses, and not to rest content, as in the past was too often the case, with any kind of horse, provided his terms were low enough. To this end the Government not only makes a grant of from £20 to £30 towards the premium paid to the owner of the stallion, but it also pays part of the service fees for mares, when these mares are adjudged by the recognized officials good enough to merit such recognition.

In order to the working of this scheme the first step is for the farmers or smallholders occupying land on the terms above indicated within a given area—it may be a parish, if large enough, or a group of parishes, or a defined area with natural boundaries easily determined—to hold a public meeting. That meeting will be called by the Head of the Live Stock Department of the Board of Agriculture, and may be held in a school or village hall, or the room of an inn or hotel, as the case may be. The object of the meeting is to stimulate an interest in the improvement of the ordinary farm stock of the smaller tenantry, not horses only, but also cattle, sheep, pigs, and poultry. After hearing what is to be said on the subject the meeting passes a resolution that a Stock Improvement Society for the district be formed to be called the—District Stock Improvement Society. A model constitution for such societies has been drafted by the Board of Agriculture and that constitution is by resolution, duly moved and seconded, adopted. The chief officials are a President, Vice-President, Secretary and Treasurer, and Executive Committee. All present and concurring in the resolution to form such a society are enrolled as original members, and the annual subscription is fixed at 5s., or some such figure, per member. Almost everything depends on the Executive Committee and especially on the calibre and energy of the President, Vice-President and Secretary and Treasurer. The Executive Committee determines what sires it may be best to introduce into the district

of the Society's operations—in respect to horses, whether a Clydesdale, a Highland stallion, a Hackney, a Shetland pony, or a Thoroughbred, etc.; in respect to cattle, whether it be Shorthorn, Aberdeen-Angus, Galloway, Ayrshire, Highland, British Friesian, or what; in respect to sheep, whether it be Border Leicester, Blackface, Cheviot, Oxford Down, Suffolk, or what, and how many rams, and so on in respect to pigs and poultry. The Board which grants the premiums retains a hold on the selection made in this way. In respect to horses, the Executive Committee appoints a selecting committee, but the horse chosen must be on the Board's Register of horses approved for soundness and fitness, and the bulls chosen must be taken from those on which the officials of the Board place their imprimatur at certain of the spring bull sales. These bulls when being sold are announced by the auctioneers as "selected by the Board for a premium." As it is only with the horses we are here concerned, enough has been said to show the *modus operandi* of hiring Clydesdales by the Stock Improvement Societies. These are of comparatively recent origin—the Act under which they have been instituted having only been passed in 1911. The terms for horses hired under this arrangement and by these Stock Improvement Societies vary somewhat but may be put down as £30 premium, with 25s. payable at service and £2 additional when the mare proves in foal. A horse with a good reputation as a stock getter, and serving eighty mares, under this agreement should yield to his owner an annual revenue of about £250. Lethen Chief 19177, at the Montgomery dispersion in March last, with an engagement on the above terms, was sold by public auction for £504, that is for two years' purchase. He was only rising three years old, and has obviously given satisfaction as he has during the past few weeks been re-engaged for season 1919 on somewhat enhanced terms by the Society to which he was hired for this season.

But as has been indicated these conditions apply to societies organized as a result of the passing of the Smallholder's Act, 1911, and in order to secure the benefits of Government subsidies which that Act confers upon smallholders as already defined.

The stallion hiring system was in existence for at least a century before the passing of that Act. The societies engaged in hiring stallions are organized in a variety of ways, although in a general way they all seek to conform to the general ideal of voluntary organizations which abound in Scotland. Sometimes the district or county agricultural societies which organize shows of stock and take a general survey of the interests of agriculture within their area, include the hiring of traveling stallions as part of their program. This is the case with the Glasgow Agricultural Society, which for at least sixty years has hired a stallion or a couple of stallions annually to travel what is somewhat vaguely defined as the Glasgow district, i. e., the district around the City of Glasgow. In most cases, however, the district horse breeding society is an *ad hoc* body, which exists for the purpose of hiring one or more Clydesdale stallions to travel within a prescribed area for the service of the mares of the members of that Society, or to stand at certain centres within the area on certain days of the week for the same purpose. As a rule the horse travels by road from station to station, but in some few cases he is sent by rail from the one station to the other. This latter course is adopted in the case of the Northern Counties' Horse Breeding Society and the Scottish Central Horse Breeding Society. These are societies having members scattered over a wide area, who are united for the purpose of securing a horse of the highest class to serve selected pedigree mares. The first named Society has members in the Counties of Inverness, Ross, Sutherland and Caithness, and the horse stands at centres so far apart that only by rail can he be found at each on the appointed day. The second-named has its centre in Stirling and its members in that County and in Clackmannan, Kinross, Fife, and Perth Shires. It is an interesting fact and worthy of consideration that horses when sent by rail from one place to another have not proved so prolific as when they have travelled by road in the ordinary way. Regarding the latter it is generally agreed that a journey of ten miles per day for six days a week, with rest on the seventh, is as much as is good for a horse.

The ordinary district horse breeding societies obtain their revenue in this way: Each member pays an annual subscription—usually 10s.; he is also under obligation to put at least one mare to the horse hired by the Selection Committee for any given season, or should he fail to do that he must pay into the funds of the Society the amount of the service fee for one mare. The stallion owner is also sometimes under obligation to subscribe to the funds of the Society a royalty of it may be 5s. or 10s. for each foal left by the stallion. Consequently it becomes the interest of everybody to see that the stallion is a prolific stock getter. A horse like Everlasting 11331, which recently died, makes money for everybody who has anything to do with him. He was a magnificent horse of himself—an unbeaten champion as a yearling and two-year-old. Consequently he was hired speculatively on high terms for his first two seasons—that is, as a three-year-old and a four-year-old. In these two seasons he proved himself to be a prolific sire, and his foals were of great promise. This ensured his being hired for the two seasons following. During these two seasons a selection of the produce of his first two seasons made their appearance in the show-yard, and took good positions, the results placing him high on the list of breeding horses as tested by show-yard results. A year or two later it became clear that his daughters were breeding well, and his male produce which were castrated were found to be sound, weighty cart horses, in high favor with dealers. Henceforward for many years until

Continued on page 1421.

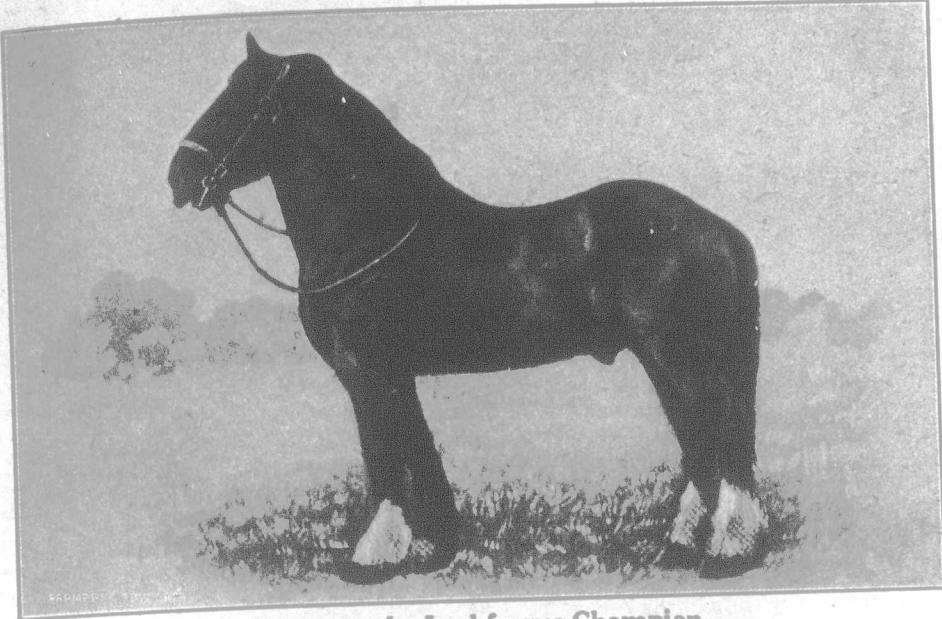
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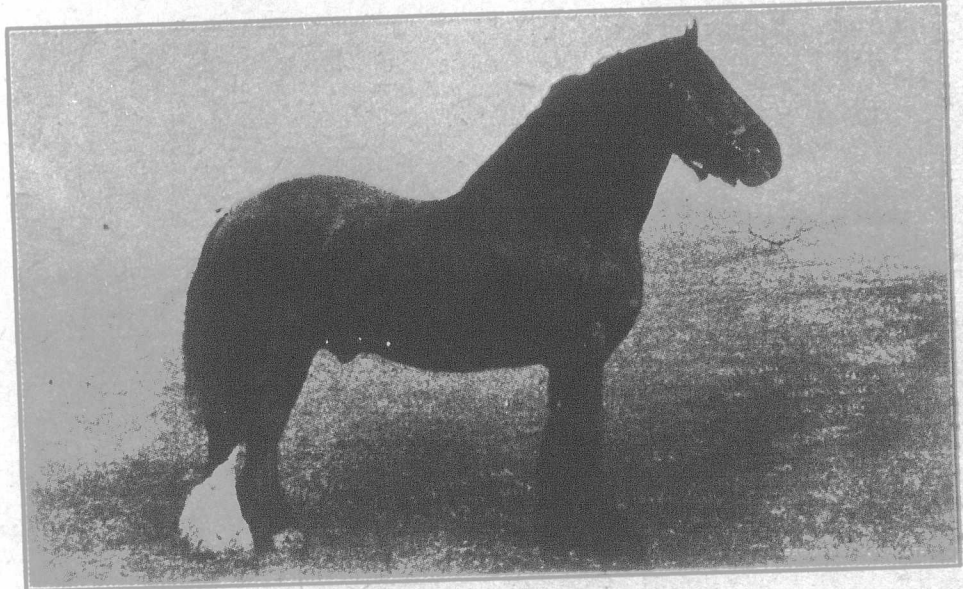
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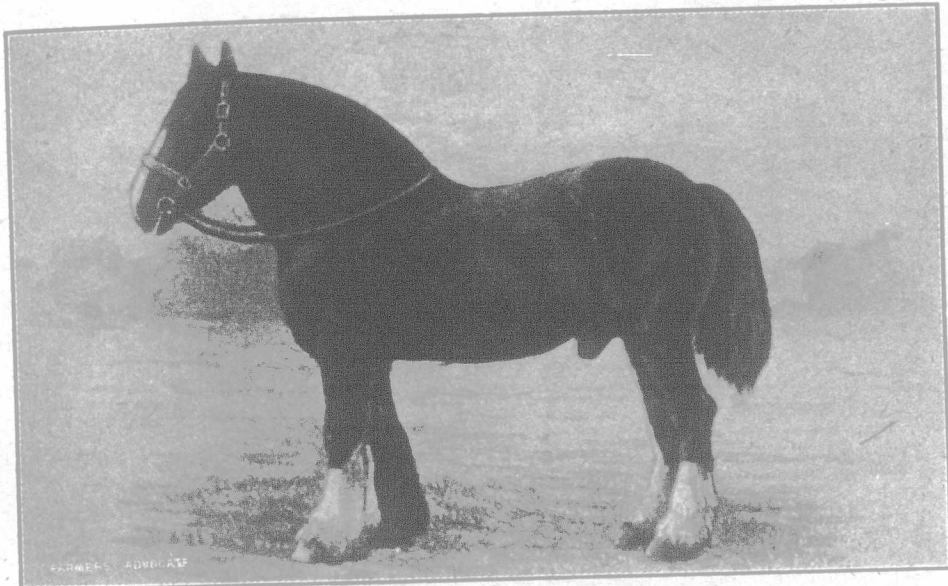
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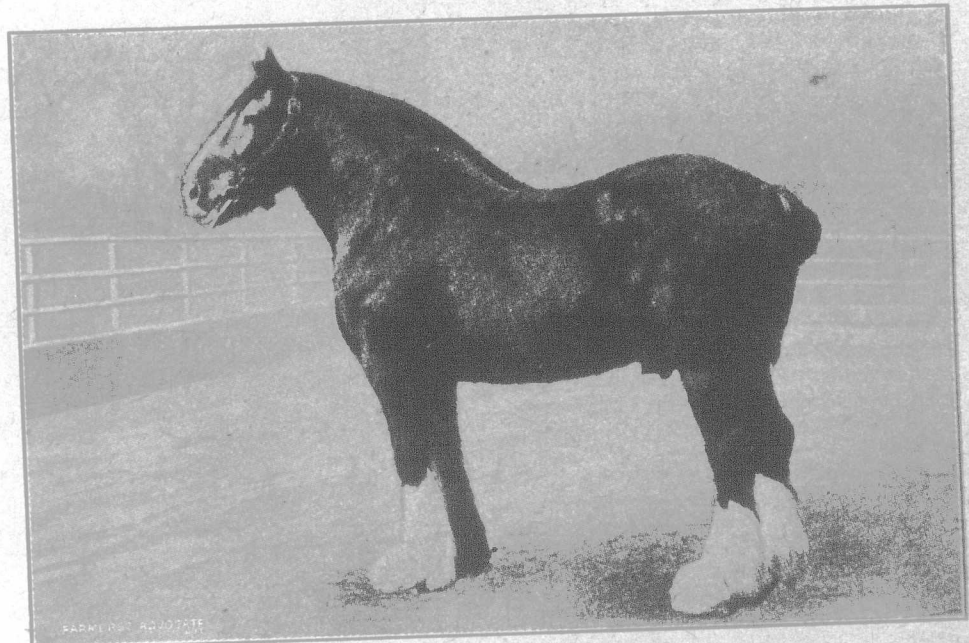
Conqueror by Lochfergus Champion.



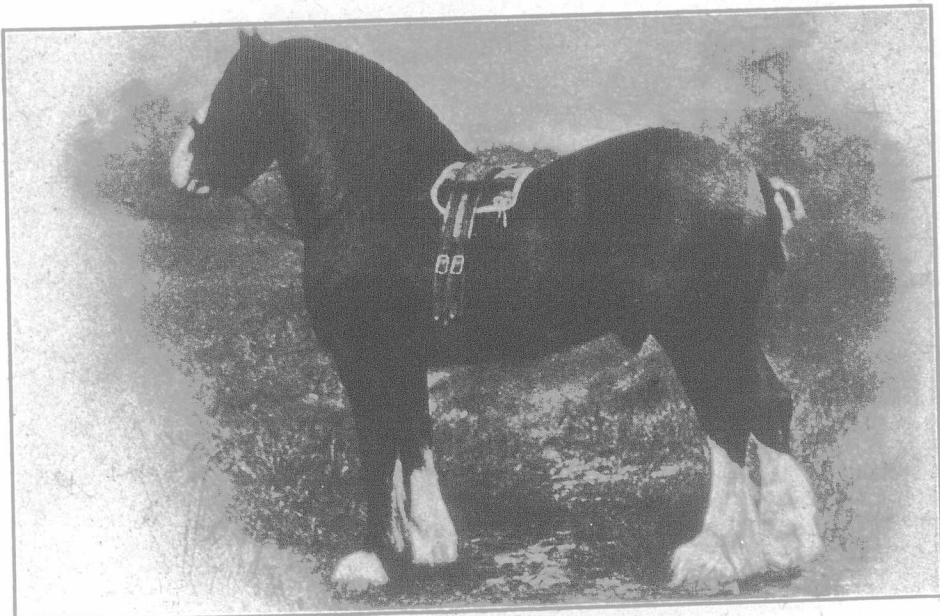
Darnley by Conqueror.



Top Gallant by Darnley.



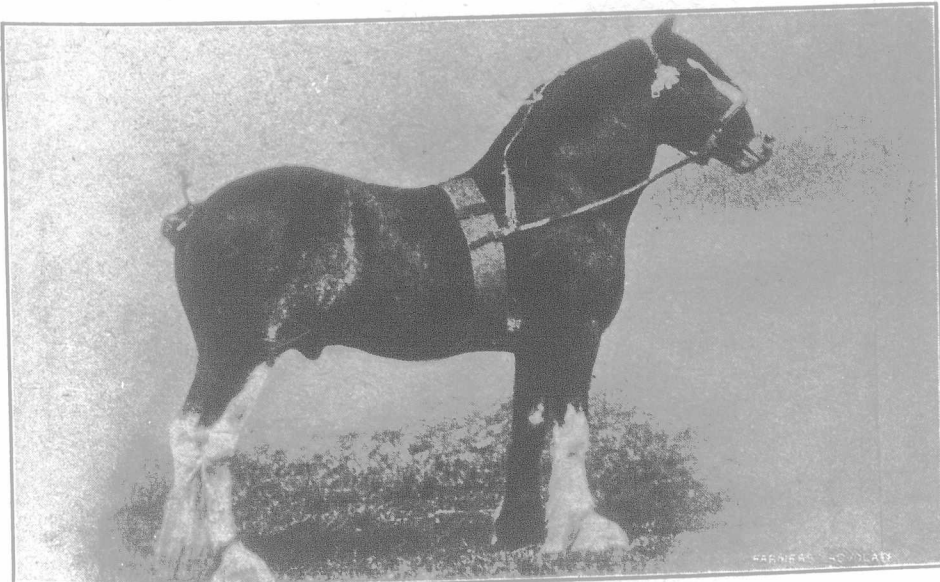
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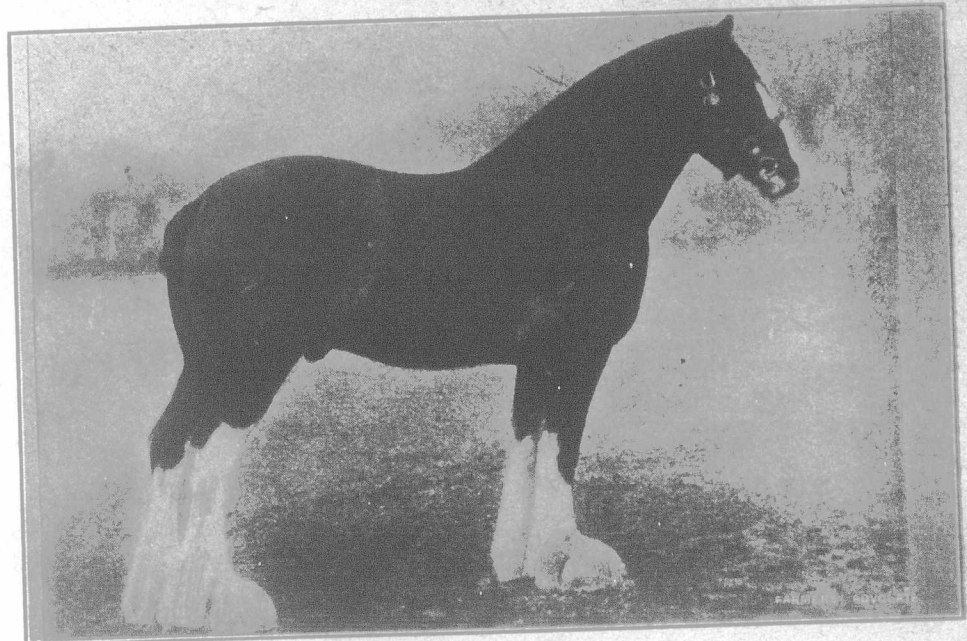
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Baron of Buchlyvie by Baron's Pride.



Dunure Footprint by Baron of Buchlyvie.



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LIVE STOCK.

A National Live Stock Policy.

BY H. S. ARKELL, LIVE STOCK COMMISSIONER.

The production of live stock in Canada is now in the strongest position that it has ever been in the history of the country. This fact is true whether as referring to cattle, sheep, swine or poultry. Notwithstanding the difficulties of labor and the consequent shortage of feed, we are steadily increasing our stocks and it is worthy of note that our total animal exports of all descriptions and from all sources have increased since 1913 from \$29,704,128 in that year to \$142,245,193 in 1917. The increase in our exports of cattle and cattle products has been from \$2,406,052 in 1913 to \$27,565,817 in 1917; in sheep and sheep products from \$397,644 in 1913 to \$9,054,543 in 1917; in swine and hog products from \$5,764,609 in 1913 to \$63,134,475 in 1917; in poultry and poultry products from \$156,452 in 1913 to \$3,675,960 in 1917 and in dairy produce from \$20,970,371 in 1913 to \$38,834,398 in 1917.

In the opinion of those who are giving close study to the prospective development of agriculture in Canada, it is the belief that the live stock industry may easily become one of our most important national assets. In our grain trade we are in competition with Russia, India, the Argentine and other great wheat producing countries where both land and labor are considerably cheaper than in Canada. After the conclusion of the war, the normal world production of grain can be again attained almost within a year and with the consequent rapid readjustment of grain prices, Canada will probably find it to her advantage to sell her grain in the form of meats and produce, demand for which is bound to continue for many years to come. Our agricultural future, therefore, is likely to be determined on the basis of our live stock production. Such is the firm conviction of those who are giving the subject most thought. This conclusion suggests further that, while not minimizing the efforts which must be made to promote all agricultural industry providing an adequate revenue, it must become the fixed national policy of this Dominion to develop and extend live stock production and live stock commerce in a manner and on a scale not hitherto undertaken.

It must not be forgotten that the huge stream of exports, consisting not only of munitions but as well of wheat, bacon, cheese and other agricultural and animal products, has provided a revenue which, in a measure, permits us to postpone the undertaking of a permanent constructive export policy such as must become absolutely essential in order that we may be enabled to discharge our steadily increasing financial obligations. In addition to the national indebtedness resting upon the country from the period prior to August 1914, we have to consider the obligations directly from the expenditures incurred during the war. No further statement need be given as to Canada's interest in developing her productive capacity to the utmost. Immediate national interest obliges the nation to find the solution for this problem through the development of her natural resources. It is not too much to say that, apart from the human element, the Dominion has no greater commercial asset than the possibilities we possess for extending our live stock production and in the opportunity now presented of creating a permanent and expanding export trade in meats and its by-products and in dairy and poultry produce.

There are several important considerations which are materially contributing to the advantageous position which Canada has achieved as assuring the success and stability of such a movement. The name of Canada is held in the highest esteem in the Mother Country, in

France and amongst the other allied nations. It is impossible to over-estimate the importance of the trade asset secured for Canada through the service which her sons have given to the Empire and in the cause of world civilization. If we can hold this reputation in our business relationships, our future success is assured. It is to be borne in mind also that measures undertaken by the Federal and Provincial Departments of Agriculture which have proven practically successful in stimulating production and in improving marketing methods, are now in operation throughout the country. Our meats and other products are under Federal inspection as regards freedom from disease and, in certain instances, as regards quality. Plans have been devised which are resulting in the return to country points of large numbers of stockers, feeders and breeding cattle, which, under existing conditions, would otherwise have been exported or slaughtered. Co-operative marketing is being encouraged. The important live stock markets of the country are under Federal Control. A great stimulus has been given to improved breeding methods and to the value of quality through the system of distributing pure-bred sires, which has been in operation during the past four or five years. The larger producing areas are provided with reasonable abattoir and cold storage facilities. The banks are taking an increasing

mediate attention. A more elastic system of live stock credit must be secured before we can expect any expansion in production commensurate with our resources.

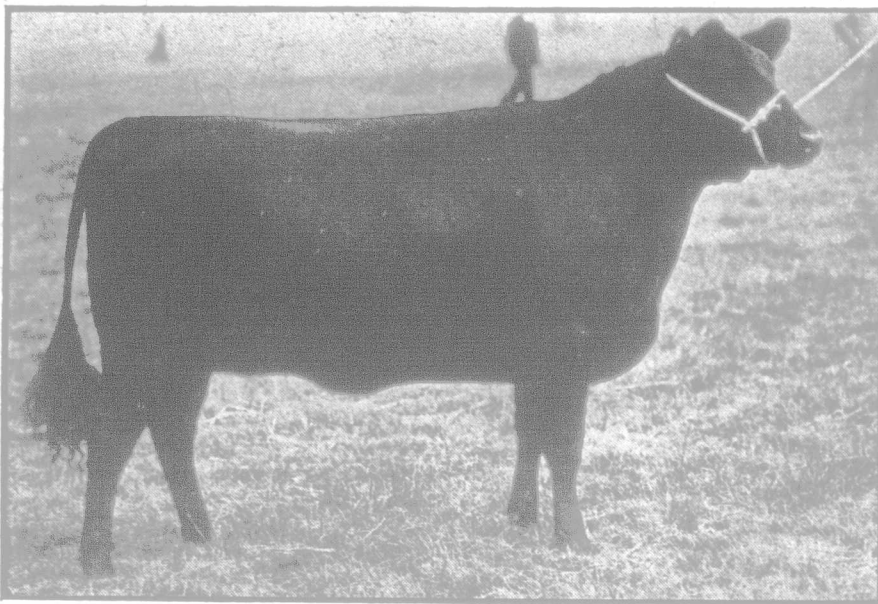
It is an economic fact that no industry can grow without the support of capital. We must at once, therefore, set ourselves to the task of devising a system of live stock credits which will enlist the support of the banks and our other great financial institutions, thus throwing the powerful stimulus of the money power of the country into the business of live stock production.

The Federal Department of Agriculture, through the Live Stock Branch, has placed trained officers at each of the stock yards throughout the country and their services have been utilized very widely by farmers and feeders in connection with the purchase and sale of their stock. Based upon information supplied by these officers regarding prices, movements, etc., a Market Intelligence report has been issued which is providing the producer with information that is placing him in a steadily stronger position in selling his product. This service must now be extended to the issue of daily reports for the public press and to a telegraph service which will make it possible for a producer in any part of the country to obtain current markets information by paying the cost of the wire. It is questionable if any more powerful or effective scheme can be devised than through such a system of daily markets information which will enable the farmer to obtain the last cent which his cattle or hogs are worth.

The Dominion is ridiculously lacking in terminal cold storage accommodation. It is a fact that no refrigerator accommodation is available on the harbor fronts at Montreal or Halifax. In consequence, the produce trade is obliged to bear excessive charges for insurance and drayage. The development of a meat trade has been continuously hampered because of this fact and those engaged in the export meat business have been obliged to face delays, losses and risks of which very few people are at all aware. Millions of dollars have been spent in providing harbor facilities and Canada is enjoying the greatly increased revenue through the shipping facilities provided both for Canadian and American business. Cold storage accommodation at the harbor fronts will very greatly increase this revenue, will develop our ocean ports, will provide traffic for our railways and will make possible the creation of a permanent dead-meat trade with Great Britain. Until such accommodation is provided our produce business must severely suffer and it will be impossible to prevent the sale of our high-class Western and Eastern beef to United States concerns to be marketed through American channels.

We have yet to refer to the perfecting of our trade connection with the Mother Country and to the advertising of our product on the export market. It is our firm conviction that this can best be furthered by requiring that our products shall be sold by standard grades under Government inspection. If we are to successfully compete with our rivals on the European market and if we are to obtain a dependable reputation for the goods we sell, it cannot be done by any haphazard system of marketing. Canadian eggs are now under inspection for export purposes and the advantage is already clearly apparent. Other countries have similar systems of guaranteeing their product. In this manner alone will it be possible to make the name of Canada a standard for excellence and value on the export market.

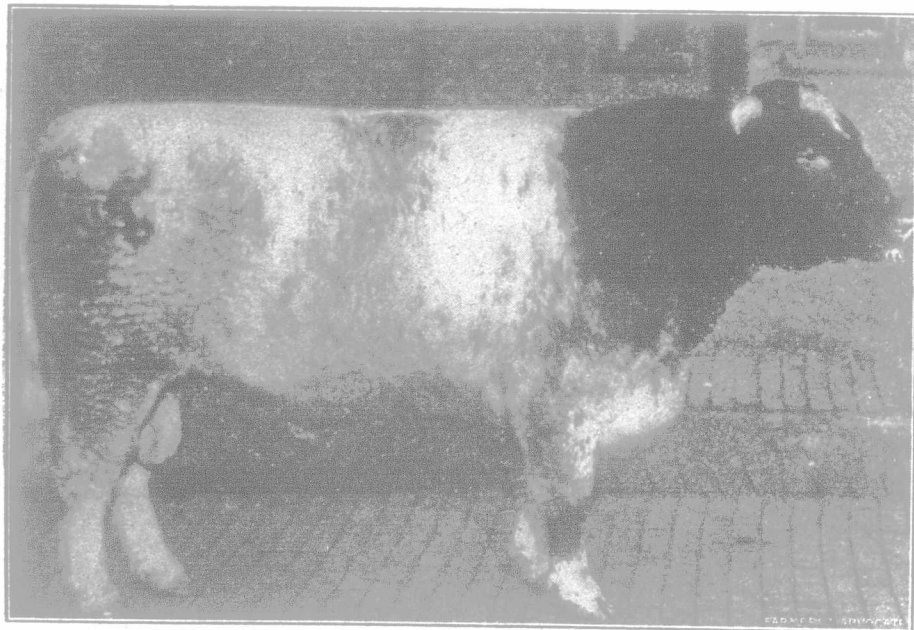
By way of summary the Dominion has now one of the grandest opportunities ever presented to any country of developing a profitable and comprehensive export meat and produce trade in the European market. Financial and economic reasons oblige the country to deliberately foster this enterprise as a definite national policy. It will require nerve, foresight and scientific business direction to bring it to complete success.



A Good Aberdeen-Angus of the Erica Family.

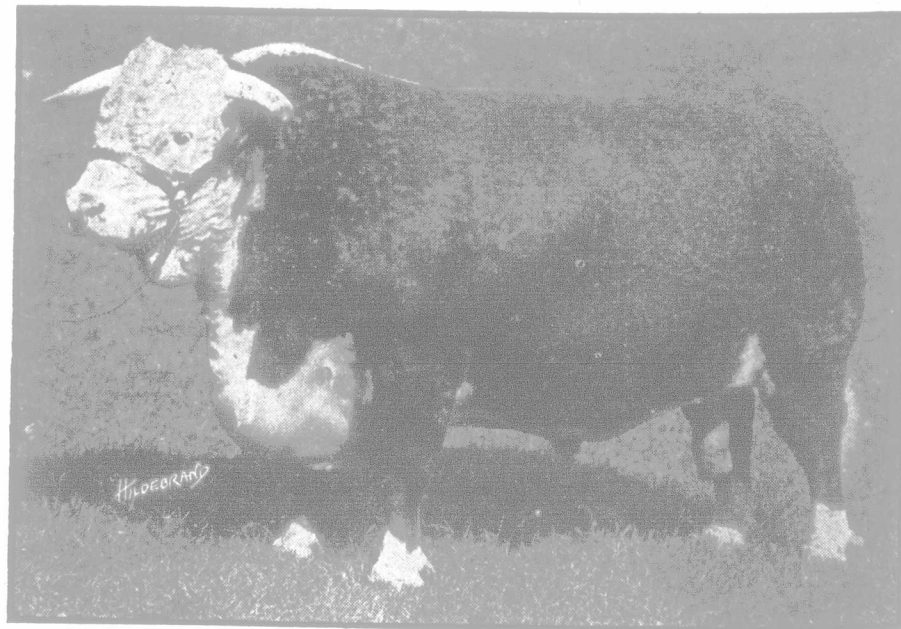
and useful interest in the development of live stock production. Finally, it is to be noted that the Dominion is in a particularly advantageous position as regards railway mileage to give adequate and necessary service not only in handling the great bulk of business in the older settled districts, but, as well, in opening up and extending production in new territory. In a word, Canada has reached that point in the development of its industry where, given the proper incentive in the way of a steady market outlet and a firm confidence amongst farmers in the future of their business which such trade will inspire, she will be able to make rapid and continuous advancement to the advantage of the whole Dominion.

I wish to point out certain of the most important features to which, in my judgment, particular attention must be given in perfecting and making really effective a national trade policy such as I have endeavored to outline. The importance of quality and finish in our live stock is not to be over-estimated. The need, therefore, for the continuance of energetic measures to promote the more general use of high class pure-bred sires and to improve methods of breeding and feeding is more than ever obligatory. I wish to insist, however, more particularly in this article, upon the financial and marketing factors of the situation which require im-



Village Supreme.

A Shorthorn bull which recently sold for \$16,500 in U. S. A.



Ardmore.

A Hereford bull which brought \$31,000 at public auction in U. S. A.

"Coming Up with the Sheep."

A Story of an Ontario Farm Flock--By Prof. Wade Toole, O. A. C., Guelph.

It was early April. A boy of few summers was basking in the sunshine of the south side of a large sheep pen dreaming of the barefoot days to come and wondering whether his father would decide to wash the sheep on May 24 and so provide him with a day's fishing, or whether the then comparatively new practice of shearing unwashed would appeal to the head of the household and the upwards of forty grade Shropshires would, in a few days, be shorn and the wool disposed of without washing. This was a question of considerable import to the boy who took more interest in the sheep than in any other class of live stock on the farm. The live stock instinct is bred in the boys whose parents and fore-parents have been live stock breeders. The boy's liking for sheep was not accident. His father and grandfather before him had been interested breeders of good grade flocks. Small wonder was it then that the lad had a natural liking for sheep and was wont to spend the sunny afternoons in April in the well-bedded, warm yard with the lambs. He grew to know them individually and could point out their mothers when the shepherd of the flock found it necessary to identify lambs and ewes—to put it in the words of his mother, who was more proud than ashamed of the statement, "Billy came up with the sheep".

As the years rolled by swiftly for the old folks and dragged along for Billy, the latter's knowledge of sheep increased from the practical experience he obtained, almost unconsciously, from close association with his father's flock which was still grade Shropshires. Feeding, care and management were learned at the time of life when such things come easiest and stick closest. Interest increased with years and finally the decision was made to sell out the grade flock and make a start with pure-breds, a decision which all breeders should make after achieving success with grades. Good grades are sufficient with which to learn the sheep business in Ontario but once learned it is better business to buy and breed sheep of better blood. The grades were sold off to the butcher and a modest beginning in pure-breds was made. The story of this flock is the story of many another flock and one in which the man contemplating starting in better sheep may be interested.

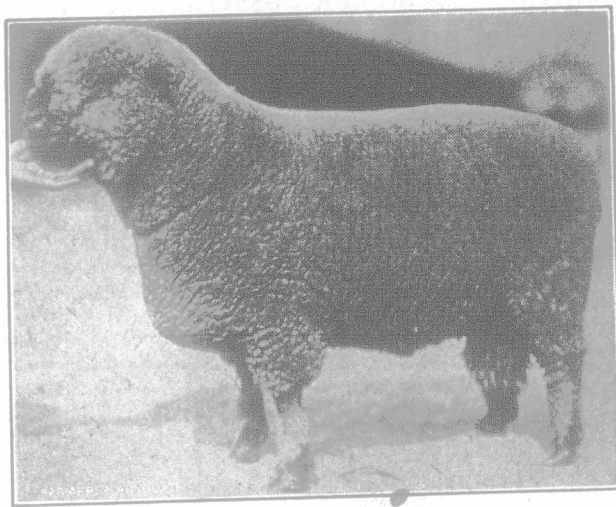
At a closing-out sale of farm stock and implements the four best yearling ewes and the two best lambs of the high-class flock of pure-bred Shropshire sheep included in the auction fell to the bids of Billy's father after close consultation with the boy. They were a bonny lot and it was with considerable pride that they were driven home to Bellevue Farm in the stock rack and unloaded for the inspection of the rest of the family and the neighbors. A start was made in pure-breds and success seemed reasonably sure, for the farm was well-watered, a never-failing spring creek crossing it, the land was fairly high, grades had done well and it seemed selected pure-breds should go on and do likewise. The foundation six ewes cost, in those days of ten-cent wool and four-dollar lambs, in the neighborhood of \$100, a price considered fairly high, but they were "good stuff" as the stockman says and it always pays to buy the best available when starting a flock. A substantial building can never be built on an insecure foundation. The breeder is building for years, possibly for many generations, consequently he must lay a foundation which will be permanent. The best in type, individuality and blood is always the cheapest in the end.

In the grade flock which had been discarded, but in which good pure-bred rams had always been used, a lambing record of one hundred and thirty-three to one hundred and fifty per cent. was common. The pure-breds did not prove so successful. Small lamb crops and heavy losses, even under the best of care, made the task of breeding up to a fairly large flock for the one-hundred-and-fifty-acre farm an uphill fight. The bulk of the lambs were males for which there was, at that time comparatively little demand and the lamb losses were heavy. For the first three years the flock did not increase to above eight head of females and ram and wool sales were not sufficient to pay for feed and care. Some less resolute would have abandoned the idea of attempting to succeed with the pure-breds and would have reverted to grades. Billy's father was almost on the point of doing so but remembered what all live stock men should never forget, namely, that the only road to success is to stick to the business. The "in-and-out" in live stock breeding is always out of pocket. Understanding fully the boy's keen interest in sheep the flock was traded by the father to the son for a pure-bred Shorthorn heifer which the latter had brought up from a calf.

Stick-to-itiveness counted in the long run. The next spring the lamb crop raised made an increase in the flock of one hundred and twenty-five per cent. and after selling the rams, which went at a better price, the ewe flock began to show substantial improvement numerically. A gradual but slow increase was made year after year. The best ewe lambs were retained in the flock and the old ewes and ram lambs sold off annually. The money for wool and all stock sold was banked and only drawn upon to purchase sires for the flock. A good pure-bred ram was in those days procurable for from \$20 to \$25 and these were the prices paid for sires.

Eventually the ewe flock comprised fifteen ewes and the first year this number were bred twenty-two lambs were raised. These twenty-two lambs sold in the late fall for eleven dollars each and, with the wool, a substantial return was coming in from the flock. Billy was at the time in attendance at the Ontario Agricultural College and was using the returns from the flock of sheep to pay for an education in agriculture. The money for this entire four-year course was made from this flock of Shropshires which were fed free of charge from the grass and crop of the farm. The success that crowned the effort was largely due to care and attention coupled with the determination to make the flock pay.

The greatest factor in making the flock give substantial returns was undoubtedly the use in three consecutive seasons of a very high-class, imported ram and here is a point for all to consider. A stock ram had been purchased in the Old Land by one of Ontario's largest breeders. He had cost in the neighborhood of \$150 on the other side of the water. This was a high price at the time and the ram was a high-quality, two-shear individual. He was very fat, weighed 318 pounds and was clumsy on his feet. Only four ewes of the flock bred to him proved in lamb and the following fall he



Only One, but Half the Flock.

was considered by his owner as unsafe for use. Billy saw the ram and liked him. For use on his fifteen ewes he did not feel justified in paying \$60 for an imported "field" ram which was the price prevailing for such that particular autumn. The breeder offered the \$150 ram for \$25 saying also that he was "no good". He added, however, that if the old ram was taken and proved impotent that the use of one of the imported field rams could be secured at no cost. Billy figured that under such conditions he was sure to get his ewes bred to a first-class imported ram at a reasonable cost so he took the old ram home early in October and turned him with his fifteen ewes. The flock had a habit of grazing at the far end of the farm coming to the buildings each night. The distance travelled to and fro was nearly a mile, night and morning. The old ram, stiff and fat, tried to follow. At first he did not succeed but finally, as the fat slipped off, he was able to make the round trip and gradually became quite active. Not a ewe proved in lamb to the first service as shown by the color marking of paint used on the ram's breast, but to the second service all but one proved safe in lamb and that one conceived at a later service, the fifteen ewes dropping the record number of thirty-one lambs of which they raised twenty-six. This ram was used three

years in the flock and then sold and was afterwards used for at least two years in each of two other flocks with grand success. His stock brought the prices which provided the funds to complete Billy's college course. The lambs were large, well-covered individuals, in keen demand. A point here to remember—do not let the ram get too fat. Exercise and moderate feeding are necessary to potency. Always save a good breeding ram from the flock. A mature, tried sire is worth far more than an untried ram.

It was finally decided to sell the flock with the rest of the live stock and implements of the place. A choice Canadian-bred yearling ram was purchased for thirty dollars and the ewes were bred to him. The ram sold for nearly sixty dollars in the spring, the flock for over \$300. They had paid for a four-year college course and left \$300 to the good. The pure-breds paid in the end.

After a year had elapsed a new flock of the same breed was established. These have gone on an made money for their owner. Last year the money returns from the flock built up from the purchase of about thirty lambs in 1911, and from which large sales have been made each year since they reached breeding age, were over \$1,500. Good rams have been used. In the larger flock of forty to fifty ewes the breeder is warranted in purchasing a first-class, imported ram. The increased price of the lambs and improved breeding value of the flock will more than make up the extra cost.

The flock grazes all summer mostly on a blue grass and white dutch clover mixture. They are moved from field to field and have sufficient range to avoid sheep troubles which are due to pasturing too long on a limited area. Winter feeding has consisted largely of pulped turnips, clover hay and oats. The sheep are allowed outside in an open yard a greater part of the time. A warm lambing pen is provided. Success is due to good feeding care, exercise and the use of high-class rams.

The story of one flock is told. What has been done others can do. Sheep never were in greater demand than at the present time. Seventy-five-cent wool and expensive mutton augur well for the future of sheep breeding in Canada. The work is pleasant; the returns are commensurate with the care. Weeds are less prevalent when sheep are kept. Most of the general farms in Ontario would profit by the keeping of a flock of sheep. Let the breeder choose the breed he likes, if possible get the boys interested and then study results. A small flock at first is a good rule. Grow up with the business and you'll not be sorry the boys "came up with the sheep."

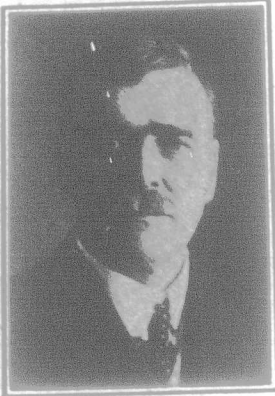
Last year the Alberta Sheep Breeders' Association sold 153,000 pounds of wool for 280 members of the Association at an average of 60 cents a pound, realizing a total amount of \$91,408. The several grades were sold at different prices, the highest priced grade, fine medium combing, selling for 64 cents a pound, down to 20 cents for tags. This year the Association will sell for between 350 and 400 members of the Association, between 225,000 and 250,000 pounds, representing a value of between \$150,000 and \$175,000. After being graded at Calgary, the wool will be shipped in car lots to the Canadian Co-operative Wool Growers' Limited, Toronto, for sale, in order to get the best net returns for the members. A charge of 3 1/2 per cent. will be made to provide for the expense of grading and handling at Calgary, and also handling and selling at Toronto.

Keep the flock to a high standard by systematically culling out ewes which are poor milkers, shy breeders or light shearers.

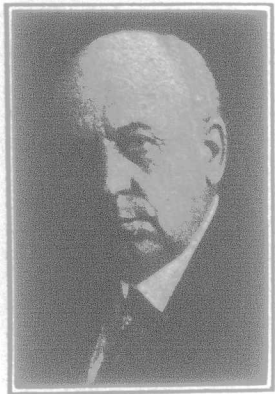


A Large Flock of Long-wools on an Ontario Farm.

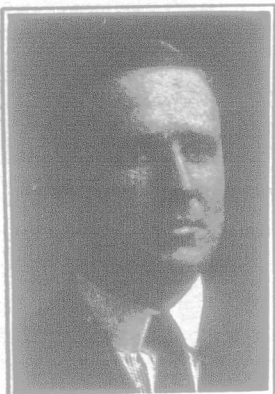
Live Stock Organization' in Canada.



Robt. Miller.



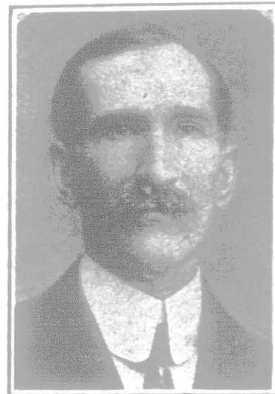
Geo. Pepper.



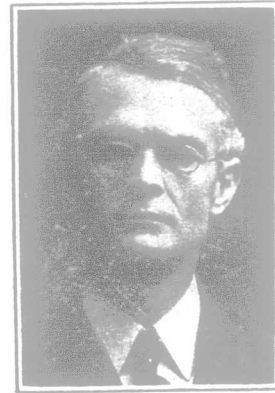
W. A. Dryden.



J. D. Brier.



W. F. Stephen.



R. W. Wade.

Agriculture is the least organized industry in Canada to-day, and yet it would require the space of many columns to describe in any degree of detail the societies, clubs and associations which farmers have brought into being and still maintain for the good of the various branches of husbandry. Speaking provincially, the fruit and vegetable growers are pretty well federated; the grain growers of the Prairie Provinces have a wonderfully powerful and useful organization, but after all, the stockmen of Canada have carried the league-of-stockmen idea further than any other class, until they now have a Dominion alliance with representation, based on live-stock assets, from all parts of Canada. The community spirit is a splendid thing, and so is pride in one's township, county or province, yet the prosperity of the farmer now depends so much on markets, transportation and economic conditions generally that provincialism must give way to national and international considerations with which local associations are not big enough to deal.

Organizations are best built from the bottom up, that is to say there must be local clubs, societies or associations throughout the country; these will act as a clearing house for local wrongs and furnish timber for the cabinets or councils created by the locals to do the big jobs. A peculiarity of live stock organization is that as it progresses and becomes more influential, as it is endowed with funds and invested with power, and as it develops into something capable of dictating policies and righting existing wrongs, its membership becomes smaller and smaller. There is a common belief that the strength of an association can be gauged by its memberships. In some cases this is true for where the cause is just and in the interests of many, one man or a few men who will press the claims, require the support and endorsement of those whom they represent. However, the stockmen elected to preside over the destinies of the industry in Canada get this support through a system of representation, and it is the purpose of this article to describe in a general way at least how this is brought about, and how the breeders on the side roads and concessions of any province in Canada can make their grievances known with good prospects of having them attended to.

Sectional Organization.

We do not propose to deal at any length with provincial organizations; all provinces are pretty well equipped with such, and stockmen who pay any attention to matters outside their own barnyards will be more or less acquainted with what is going on in their own province. When in doubt, the directors of live stock branches in the various provincial departments of agriculture, should be able to furnish the required information, and only too willing to do so. Horses, cattle, sheep, swine and poultry have their local or provincial associations, and breeders should assist them for they are the supports upon which the more influential and stronger organizations are built. From these we go on to semi-national organizations such as the Western Canada Live Stock Union, whose field is west of the Great Lakes; and the Eastern Canada Live Stock Union which covers the territory east of the same waters.

In the spring of 1913 a number of delegated stockmen met in Calgary at the time of the spring show, and laid the foundation for the Western Canada Live Stock Union. It was common knowledge then as well as now that their first effort would be to overcome a dominance, apparent or real, held in regard to certain breed associations, but this was only a part of the program. One clause in the prospectus summarizes well indeed the objects for which this Union was created, and which concerned the organization early in its existence. This clause read as follows: "To represent and promote the live-stock interests in all matters of common concern with the object of fairly securing the enjoyment of all rights and privileges, and in so doing to make a wrong of a general nature against any the concern of all."

Markets, transportation, and everything which concerned the breeder of commercial or pure-bred stock were dealt with by the Western Canada Live Stock Union, and suffice it to say that this alliance of the Western stockmen has amply justified its existence. The following officers were duly elected at the first general meeting in October of 1913: President, Dr. J. G. Rutherford; Vice-President for British Columbia, Dr. S. F. Tolmie; Vice-President for Alberta, John A. Turner; Vice-President for Saskatchewan, Hon. W. C. Sutherland; Vice-President for Manitoba, Andrew Graham; Sec.-Treas., Dr. A. W. Bell. In October, 1914, E. L. Richardson, of Calgary, Alberta, was appointed Secretary-Treasurer, to succeed the late Dr. A. W. Bell.

At the last annual meeting of the Union, in November, 1917, Dr. J. G. Rutherford was re-elected President, and the following representatives were elected as directors: Dr. S. F. Tolmie, British Columbia; J. L. Walters, Alberta; F. H. Auld, Saskatchewan; Andrew Graham, Manitoba. We should dwell long enough at this point to explain that the organization has made an effort to enlist the sympathy and support of all the live-stock interests of the West, so it in turn could benefit, in a broad way, the farmers of its constituency. Representation is made through the local associations, and all branches of the industry are given an opportunity to take part in the deliberations of this council, for it is realized that live stock and other branches of agriculture in the West are dependent one upon the other.

The Eastern Canada Live Stock Union is a similarly constituted body, but of more recent origin; however, its object, like that of its sister union in the West, is to foster the live-stock industry and right the wrongs which retard the development or prosperity of husbandry in Eastern Canada. The officers appointed on February 8, 1918, were: President, William Smith M.P., Columbus, Ont.; 1st Vice-President, John Gardhouse, Weston, Ont.; 2nd Vice-President, R. R. Ness, Howick, P.Q.; 3rd Vice-President, W. R. Reek, Fredericton, N.B. The Executive consists of the following representatives:

Horses, Geo. Pepper, Toronto; cattle, W. A. Dryden, Brooklin, Ont.; sheep, J. D. Brier, Ridgetown, Ont.; swine, J. E. Brethour, Burford, Ont.; poultry, J. H. Saunders, London, Ont.; Secretary-Treasurer, R. W. Wade, Parliament Buildings, Toronto.

Provincial Associations are entitled to representation in the Eastern Canada Live Stock Union by the payment of \$25, and at present there are six such affiliations. By the payment of \$25, a breed association is also allowed to become a member of both the Eastern and Western Unions; the money is equally divided and two delegates are accepted, one by the Eastern Union and one by the Western.

Unity Accomplished.

Unfortunately, there existed in Western Canada, prior to a year or two ago, the feeling that Eastern interests did not appreciate the growing importance of the live-stock interests in that country. This sentiment is now almost wholly obliterated, for all a Western representative has to do is to "stake his claim" and his rights are not disputed. This harmonious understanding between two sections of the Dominion has facilitated the fusing together of the Eastern and Western Live Stock Unions into one small but all-powerful organization, namely, the Canadian National Live Stock Council.

There were no rough surfaces when representatives from the two Unions, from many of the breed associations, and from the Record Committee, met in Toronto on April 6, 1918, to bring about this last step in live-stock organization. The object was to consolidate all the existing organizations of Canada into a Union or Council which could act, and act quickly when occasion demanded, for the entire live-stock industry of the Dominion. The weld was made, and it was decided that the new council should consist of eleven representatives, five from the Western Canada Live Stock Union, three from the Eastern Canada Live Stock Union, two from the Record Committee, and the Chairman of the Record Committee to be President of the Council.

The following important matters may be mentioned as examples of what might well be dealt with by such a committee of stockmen: 1, Railway rates and classifications; 2, Railway and steamboat transportation; 3, Import and export regulations; 4, Marketing of live stock and other products; 5, Health of animals, including regulations concerning same; 6, Warehouse, coldstorage and abattoir facilities for meat and other animal products, including wool; 7, Advice to the

Dominion Minister of Agriculture in all matters pertaining to the Department; 8, Farm labor; 9, Dominion legislation in any way affecting agriculture, including grants and appropriations of public money; 10, All other matters pertaining to agriculture from a Dominion-wide standpoint.

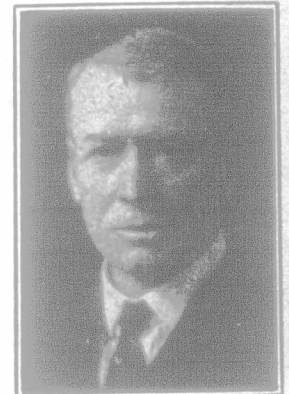
The operations of the Council are to be financed by appropriations from the receipts of the breed associations, most of which have agreed to donate at least 5 per cent. of their annual revenues; and on account of this expenditure of money, raised by the breeds, we find two representatives of the Record Committee on the Council Board to guard the interests of the breed associations. The actions of the Council are not influenced by Government funds, or hampered by bonuses from outside interests; it is a live-stock organization, financed by the industry which it was created to foster.



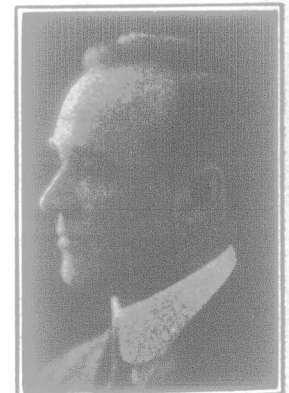
Andrew Graham.



Dr. S. F. Tolmie, M. P.



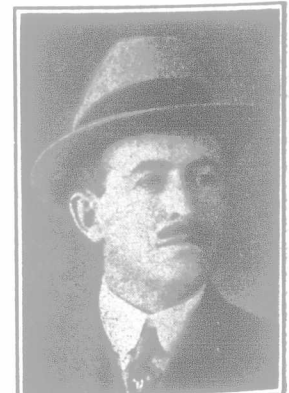
J. L. Walters.



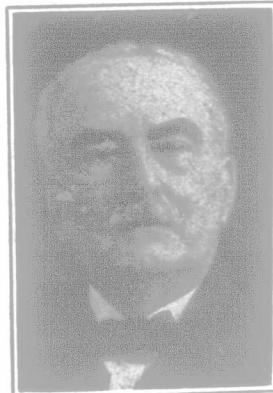
F. H. Auld.



E. L. Richardson.



John W. Brant.



Wm. Smith, M. P.



Dr. J. G. Rutherford.

THE FARM.

How New Varieties Become Popularized.

In an issue such as this, which deals, to some extent, with phases of agriculture which make for the development and advancement of the industry, it does not seem out of place to enumerate a few of the movements which have been instituted to distribute and popularize good varieties of farm crops, and so establish them throughout the country as to make for a larger national production. In this connection one must consider the activities of the Experimental Farms in conjunction with their branches, and the various endeavors of the provincial institutions along these lines.

The Province of Ontario has been very thoroughly canvassed through the Experimental Union, the Standing Field Crop Competitions, and the good samples and varieties sent out from Ottawa. The former and latter institutions develop or originate certain varieties of crops and then popularize them through their systems of distribution. The Standing Field Crop Competition is the next step through which farmers agree to compete under field conditions with known and popular kinds of crops. The product from the winning fields has an enhanced value for seed purposes over that of the ordinary farm production, and thousands of bushels of this seed are sold annually for seeding purposes.

In the year 1879, a number of students, ex-students and officers of the Ontario Agricultural College realized that some steps should be taken to disseminate throughout the Province the good seed that was being originated and tried on the College plots. A co-operative experiment system was devised, whereby those testing the seed would make a report at the end of the year and thus verify or correct the opinions entertained at Guelph regarding the quality of the seed they wished to have tested. The present system of co-operative experimental work was not undertaken, however, until 1886 and then with only twelve experimenters. In 1887 there were sixty, and in 1888 there were ninety-three. The number of experimenters this year is 3,775, which is less than usual owing to the scarcity of labor throughout the country. It is, however, about the average of the annual number of experimenters for the past twenty years, although it did go as high as 5,000 previous to the war.

Some of the varieties of farm crops which have been distributed and popularized through the Experimental Union are as follows: Mandscheuri and O. A. C. No. 21 barley; Banner, O. A. C. 72, and O. A. C. No. 3 oats; Dawson's Golden Chaff, O. A. C. No. 104, and Imperial Amber winter wheat; O. A. C. No. 61 spring rye; Marquis and Red Fife spring wheat; Canadian Beauty, Early Britain and Potter peas; Common pea and Pearce's Improved Tree beans; Rough and Silver Hull buckwheat; Green Mountain, Davies' Warrior, and Irish Cobler potatoes; Golden Bantam Sweet corn; Grimm alfalfa; Yellow Leviathan mangels; Japanese Panicle millet. Just what the value of some of these crops is to the Province it is impossible to estimate, but Dr. C. A. Zavitz, who has been actively connected with the Experimental Union since its inception, has frequently stated that the increase in yield per acre for the last sixteen years, in comparison with the sixteen years

previous, largely through the introduction of the Mandscheuri and O. A. C. No. 21 varieties of barley, brought an increased value to the barley crop of Ontario which would be sufficient to maintain the Agricultural College for about one hundred and ninety years in accordance with its present running expenses.

The co-operative work of the Experimental Union for the present year includes five departments of activity, namely, agriculture, agricultural botany, forestry, agricultural chemistry and bacteriology. In agriculture the co-operative experiments include varieties of grain, roots, forage, fodder, silage, hay and culinary crops, fertilizers with farm crops, the testing of northern and southern-grown seed potatoes, and the testing of mixed grains for grain production as well as of mixed grains for fodder production.

Under the Experimental Farm system, farmers throughout Canada for many years have been obtaining small samples of chosen or new varieties from which they could soon build up enough seed for their entire crops. The activities of the Experimental Farms in this regard have been wide and varied, but as an example of what has been accomplished we only need to mention here Marquis wheat developed and distributed by the Cerealist of that institution.

The Standing Field Crop Competition is another very important factor in the upbuilding of agriculture in Ontario. The scheme began in 1907 with a grant of \$1,000 from the Ontario Government. Hon. Nelson Monteith, who was then Minister of Agriculture, gave the proposition, introduced by J. Lockie Wilson, his hearty support. For eleven years these competitions have now been held and from time to time the grants have been increased as the work progressed, until the annual grant now from the Ontario Government amounts to \$26,000. Besides that the Government supplies judges free of charge. The directors of exhibitions and winter fairs are contributing large amounts annually in prizes, and since these contests were established the Federal and Provincial Governments together have paid \$130,000. In addition to the above, the Ontario Agricultural Societies have added, out of their own funds, \$70,000. In 1917 there were 7,000 farmers in the competition, each field judged had a minimum of five and a maximum of twenty acres. In 1918, the largest number of entries since the inception of the Field Crop Competition are made. It requires one hundred and thirty judges to score these fields. It has been the custom to assemble the judges at Guelph and Ottawa and give them a short course in judging, so as to make the results of their work more uniform. This was omitted this year, but events indicate that the short course for judges should be continued in order to give better satisfaction to the officers of the Association as well as to competitors. Of the 350 societies in Ontario, only 190 societies have yet taken up this work. There is evidently a large field yet to canvass with the Standing Field Crop Competition.

The manner in which the field is scored indicates to the grower the weak spots in his farming system, and what should be emphasized to make his crops larger and cleaner. Weeds, smuts, mixed varieties, and all undesirable features are discountenanced. There is an educational value in this work as well as the remuneration which comes from the sale of improved grain for seed purposes.

The winning competitors are permitted to send

sheaves and bags of grain to the leading exhibitions, where attractive prizes are given. When the Canadian National Exhibition offered \$100 for a bushel-sack of wheat, and \$100 for the same quantity of oats, and with the classes open to the farmers of the world, Robert McCowan of York County won the ribbons and the prize money with his Marquis wheat and Yellow Russian oats even against the competition of Seager Wheeler; the wheat wizard of the West. Mr. McCowan has been a competitor in the standing field crop competitions for ten years, and his beautiful home built from money received for seed grain from winning fields stands as a testimony to the value and advantage of progressive farming.

A Good Seed Bed Necessary for Fall Wheat.

The time for planting fall wheat is again near at hand, and preparation of the seed bed should be nearing completion. There is possibly no crop where so much depends on the seed bed. Moisture is also a factor which determines whether or not the plants will make a successful growth before winter sets in. Where a field has been summer-fallowed properly so that the season's moisture will be retained, there is little difficulty on this score, but, where sod is plowed after haying it is sometimes difficult to get the soil worked into the proper tilth. Attention should be centred on the wheat field for some time before seeding. Disking and harrowing at frequent intervals pulverizes the soil and tends to make a fine seed bed. It is necessary that the soil be fairly compact, especially when plowed out of sod, in order that the moisture retained in the soil may rise by capillary action to supply the young plant during the fall months.

An application of farm yard manure or fertilizer is necessary on most soils. The quantity applied need not be large in order that marked results be shown. The custom of applying the manure on the sod and plowing it under is not being followed now to the extent that it was at one time. Practical experience has shown that top dressing with seven or eight loads of manure to the acre, just before sowing the seed, will give results. Where there is not a sufficient supply to cover the entire field intended for wheat, commercial fertilizer may advisedly be used. Good results have also been obtained by combining a light application of the farmyard manure and fertilizer. Some of the fertilizers containing a fair percentage of phosphates usually give very good returns with wheat. Of course, the kind of mineral fertilizer to use will depend on a good deal on the nature of the soil, and a man must determine what will give the best results on his own farm, although under average conditions the phosphates are good for wheat. Nitrogenous fertilizers tend to force growth, thus producing a good top. It is well to work the fertilizer into the soil thus keeping it near the surface where the young roots may be benefited.

It is necessary to give some consideration to the kind and quality of seed sown. The wheat should be thoroughly cleaned, not only to remove weed seeds and dirt, but to take out the small and broken kernels, leaving only the large, plump kernels for sowing. As bunt, or stinking smut, frequently does considerable damage, the seed should be treated with formalin before being

sown. One pint of formalin to thirty gallons of water, and the material sprinkled on the wheat until every kernel is moistened, will destroy any spores of this fungous disease which might be clinging to the grain. The grain should be dried before sowing. Care should be taken that the damp wheat is not bagged up or left too long in a large pile. We have known of instances where the germination was seriously affected by the damp grain standing in the bags when weather conditions were not suitable for immediate sowing.

The time of sowing depends a good deal on climatic conditions and on the nature of the soil. The last week in August is the usual time in some of the northern counties, but in South-western Ontario seeding frequently is left until around the middle of September, and many sow their wheat after they have taken off their bean crop. If sown too early there is the danger from attack of insects, especially the Hessian fly. Consequently, it is well to delay seeding somewhat in districts where this fly is bad.



The Standing Field Crop Competition Exhibit at Toronto, 1917.

Automobiles, Farm Machinery and Farm Motors.

Lubrication of the Motor.

A few hundred feet or less, is the distance your automobile will travel without lubrication.

After that the pistons will bind, bearings will seize, engine will knock and finally come to a dead stop. It will go no further without lubricating oil.

The average motorist does not realize what the infinitely small oil film between metal surfaces saves him, until he faces the expense of renewing a burned out bearing. He does not appreciate why his engine stays young until he pays the repair man who has been treating it for scored cylinder walls.

His indifference to this subject arises almost entirely from his lack of information. Once he appreciates the importance of lubrication, he will see to it that his car is well supplied with an oil of high lubricating efficiency and correct body for his motor.

The parts requiring lubrication are the main shaft bearings, crank pin bearings, wrist pin bearings, cam shaft bearings, timing gears, cam, cam lifter guides and cylinder walls.

To determine the correct lubricating oil for the automobile engine requires both scientific study and broad practical experience. It necessitates consideration of the requirements of each make of car, involving the construction of the engine; horizontal, vertical or V type cylinder arrangement; two or four stroke cycle; bore and stroke; valve construction and location; oiling system; number and fit of piston rings; piston clearance; condition of bearings; cooling system (air or water); engine speed and climatic conditions.

The correct oil for the automobile engine is an oil:—

1. Of the highest lubricating efficiency.
 2. Whose body and fluidity in cold weather are suited best to the feed requirements of the engine.
 3. Of sufficient body and heat test to form a film that will separate the friction surfaces and prevent the escape of gases past the piston rings during the compression and power strokes.
- If an oil of insufficient lubricating quality is used, scored cylinder walls may result. In this case the necessary oil film fails to form between the piston and the cylinder walls.
- The piston rings then rub directly against the cylinder walls and, in time, the rings will break.

Scoring and scratching of the cylinders will result. Hissing of the motor will follow.

If an oil too light in body is used, it will work too freely past the piston rings and into the combustion chamber.

All petroleum lubricating oils are chemical combinations of hydrogen and carbon. By filtration the objectionable free carbon and other impurities are removed. It is impossible to remove the carbon, however, which is in combination with other chemical elements constituting an oil, without destroying the oil itself.

Consequently, when the oil works freely into the closed combustion chamber carbon deposit is bound to occur unless sufficient oxygen is present to cause complete combustion of the excess oil.

An unnecessary quantity of oil is consumed. Ignition trouble and, in time, knocking of the motor will result.

If an oil too light in body is used, it will form an insufficient film around the piston rings. If an oil too heavy in body is used, it will fail to spread freely, forming little or no oil film.

In either case, leakage of gases past the piston rings occurs on the compression and power strokes, with resultant loss of power.

The engine bearings differ widely in shape and size and are supplied by different oiling systems.

In determining the oil to be used for bearing lubrication, the requirements of the cylinders must be taken into consideration, as well as the close or free adjustment of the bearings.

Bearings with close adjustment, being lubricated by a pressure oiling system, may use a medium or heavy bodied oil, as the pump pressure forces the oil, between the moving parts.

Bearings which are worn require a heavy bodied oil, which will fill the space between the journal and the bearing, and thus prevent knocking.

Two examples resulting from the use of an oil of poor quality or incorrect body, are worn main or connecting rod bearings and worn wrist pins.

Unnecessary wear of main or connecting rod bearings is caused by:

1. Poor quality of the oil.
2. An oil too light in body.

3. An oil too heavy in body to reach the friction surfaces.

4. An oil unsuited to the method employed for supplying it to the bearings.

This wear is indicated by a dull thump at every revolution of the main shaft.

Worn wrist pins will result from the same causes.

Their location within the heated pistons and the slight angular motion of the bushings demand an oil which will spread readily, yet maintain the proper film between the pins and bushings.

The effect of wear will be indicated by a clear metallic knocking.

The circulating oil system which is employed on a large percentage of the late engines is designed to hold the oil in the pump.

The oil is subjected to the heat of the crank case at all times and, as all-oils decrease in body, or viscosity, under heat, it is necessary to select an oil having sufficient body, or viscosity, after being constantly subjected to this heat, to meet the lubricating requirements of the engine bearings and form a perfect piston seal.

In an air-cooled engine, the temperature of the cylinder walls is very much higher than in an engine that is water-cooled. This necessitates the use of a rich, heavy bodied oil, as the heat reduces the viscosity of the lubricant.

The value of an oil for winter use is not necessarily indicated by its cold test, i. e., its ability to flow freely at low temperature.

Low cold test oils are necessary only when the feed pipes are exposed to low temperature.

In determining the correct oil for winter use, the construction and feed system of the engine must be considered.

In cases, for example, where the oil feed pipes are so arranged as to get the benefit of the heat from the engine, low cold test oil is not required.

An oil may withstand low temperature and still not be the ideal lubricant. In fact, many such oils lack the proper lubricating quality.

The correct oil for winter use, aside from the exception noted above, must possess the characteristics previously outlined.

A. W. SULLIVAN.

Canada's Young Farmers and Future Leaders.

Preparing Exhibits for the Fair.

Many excellent products exhibited at fairs frequently do not receive the consideration at the hands of the judge that their quality deserves, simply because the exhibitor has not taken sufficient time and trouble to show them at their best. A sheaf may contain an excellent sample of grain, but if it is not made up in an attractive form, the good qualities of the exhibit will be lost upon those who attend the fair, even if the judges should discover them. The same thing holds true in the case of root crops, vegetables and fruits.

The work of preparing the material for exhibition is by far the most troublesome of anything in connection with making a display, but that it pays, if one is going to exhibit at all, to prepare the material carefully cannot be denied. Exhibits of grain in the sheaf are always very attractive and bring home to the visitor a more complete appreciation of the kind of crop represented by the exhibit. When wheat, oats or barley are to be exhibited in the sheaf they should be cut after beginning to turn yellow, but before complete ripening has taken place. This is to secure an elasticity of the straw which is necessary if the sheaves are to stand any amount of handling. A better appearance of the sheaf will be secured also if the straw is bleached for some days by exposure to the sun and to do this properly, sometimes as much as two weeks are necessary. The size of the sheaf is sometimes determined by the management of the exhibition, in which case it is well to conform as nearly as possible to the requirements they lay down. Generally speaking, one thousand heads will make a sheaf that will be approximately six inches in diameter just below the heads, while it will be nearly double this diameter at the butt. Sheaves three inches and five inches in diameter are required for some of the school fair exhibits, but the number of heads required can be easily figured out from the above. It is better if the straws are not all the same length. The longest straws should be in the centre, gradually shortening as the outside of the sheaf head is reached, so as to form a head of the best possible shape. Very large sheaves may be made most successfully by making them of a number of smaller ones, using each of the smaller ones as one would use individual straws for a smaller sheaf and finishing off the whole sheaf by putting one or two layers of individual straws around the outside. Where the grain is overripe and the straw brittle this method can be followed very successfully.

Tying is very important and each sheaf should be tied in at least three places while some kinds of grain, especially barley, will keep shape better if tied in four places. The appearance of the sheaf can be greatly heightened by using red or blue ribbon instead of binder-twine or ordinary string and the neater the knot can be made the more will it add to the appearance of the sheaf. The upper band should not be placed too close to the head; about four inches is the proper distance. The butt should be cut off squarely by laying the sheaf down

on a table or board and cutting it off a little at a time, beginning at the top. The band at the butt should then be about six inches from the butt. It should be remembered that in making sheaves, only straight straw should be used and the heads should be plump. Careful packing is also necessary when taking the sheaf to the exhibition.

Shelled grain, when exhibited, should above all things be uniform not only in the quantity shown but in the package and in the product itself. Shelled grain should be thoroughly ripe so that it will take on its best color and it should also be true to variety and free from weed seeds, dirt and other impurities. Sometimes seed intended for exhibition is hand picked, but this entails a lot of work. It is possible to get good samples by selecting the best part of the field free from smut weeds, etc., threshing this separately and after running the grain through a fanning mill, putting it through a vigorous cleaning with hand sieves.

Field roots such as mangels, sugar beets and turnips and vegetable roots such as carrots parsnips, etc., do not require so much care in their preparation as sheaves of grain but care is necessary nevertheless. In this class of product uniformity and smoothness are just as essential as in everything else and great care should be taken that the specimens selected are true to type for the variety and not too large. The importance of size is very often overrated with the result that quality, the most important single characteristic, must suffer. Size has some value, of course, and it is hardly necessary to add that the larger the specimens one can secure, providing quality is not sacrificed, the better. All roots should be firm, not spongy and the presence of prongs or an excess of fibrous roots will count against them. In any case the small rootlets at the tip should be removed and the tops should be removed as close as possible to the root, twisting the tops from mangels and sugar beets. Roots for exhibition should also be washed, but not scrubbed so as to peel off the skin or destroy the finish of the natural product. It is better to soak off the dirt and use a soft cloth, than to use a brush or do much rubbing. For trueness to type one can do no better than take as his guide the illustrations in one of the seed catalogues put out by a reliable firm.

In preparing vegetables for exhibition the essential thing to keep in mind is that the exhibits must be clean, true to type, healthy and must not show very much more of the plant than the edible part. Thus one does not exhibit the stems of onions, all the leaves of the cabbage or cauliflower or the stem of tomatoes. It is usual, however, to leave a few of the leaves of the cabbage and cauliflower since the heads are given a more natural appearance. Onions should be of good size, clean and have the tops removed to within about three quarters of an inch of the onion and the outer skin should also be taken off so as to give as clean an appearance as possible. Celery should be thoroughly cleaned and no small heads selected that show compactness and no small

spindly stalks or dead or spotted leaves. Tomatoes must be uniform, smooth, of medium size and true to type for the variety. Smoothness is one of the most important qualities in tomatoes, but this of course, will vary with the variety. Heads of cabbage and cauliflower must be well grown and as compact as possible. Trueness to type is very important with cabbage and cauliflower, since the various types are so much alike to the ordinary observer yet vary so much in their commercial value.

In preparing fruit for exhibition one must first be careful to select specimens that are free from injury or disease. Fruit is a luxury in one sense of the word and therefore appeals more or less to our aesthetic as well as our utilitarian tastes. Beauty is therefore looked for in the form of color and has its justification also in the fact that well colored fruits are also the ones possessing the most quality. Generally speaking, however, fruits are judged from the standpoint of their suitability for dessert or cooking and, therefore, these qualities should be given much attention. Size is relatively of little importance in fruits, except that very small specimens show too much waste from the core. The very best specimens of each variety will usually be found to be of little more than medium size for the variety. Excellence is determined, in most cases, by uniformity of the exhibit, color, trueness to variety and freedom from blemishes. Wormholes or scab spots are serious defects as are even individual specimens of San José Scale on a plate. The stems should not be removed, as this detracts from the keeping quality of the fruit and, wherever possible, the bloom of the fruit should be preserved as naturally as possible. The fruit may be wiped with a soft cloth if it should become soiled, but on no account should it be rubbed so that it shines, notwithstanding the fact that it can be made to appear much more beautiful and handsome by so doing. Much can be done to attract the eye of the judge by a careful selection of the plates on which the fruit is to be placed during the fair. Green, or yellow, or even red tissue paper tastefully arranged underneath the fruit will do much to set off the exhibit and we have even seen it used to throw into shadow a minor defect in one of the specimens on a plate. In the case of peaches particularly, the fruit should be as ripe as possible so that it appears most attractive. The same thing holds true with other fruits, but in any case it must not be so ripe that it will not stand up for a reasonable time without beginning to rot. The clusters of grapes must be as full as possible and true to the characteristic shape for the variety. Any defective berries in the cluster should be removed and sufficient of the stem left on to make it appear natural. What has been said about fruits in general with regard to the bloom, applies particularly to grapes as this adds considerably to the richness of the exhibit. Maturity, a healthy appearance, naturalness, cleanliness and trueness to type should be striven for in the preparation of any farm product for exhibition.

THE DAIRY.

The Outlook for Canadian Dairying.

BY J. A. RUDDICK, DAIRY COMMISSIONER, OTTAWA.

Dairy products are considered among the essential items in the world's food supply during the present shortage, and cheese especially is given priority in the matter of transportation as far as Canada is concerned. Canada is very favorably situated from a transportation standpoint as compared with Australia and New Zealand. New Zealand is practically our only competitor in the cheese market. On May 31 there were in store in that country, awaiting shipment, 770,000 boxes of cheese, being the bulk of the season's output, which had accumulated owing to the difficulty of finding vessels for transportation over such a great distance.

The herds in the dairying countries of Europe are being very much depleted, and the milk supply is further diminished by the shortage of feeding stuffs on which the European dairymen depend so largely. It will be some years after the war before the number of cows or the supply of feed is brought up to normal again. The shortage of ocean tonnage will not be relieved by the declaration of peace. A large amount of shipping will be required for many months to demobilize the armies now in France, and as long as the stringency in ocean space exists, Canada will have a preference over the Argentine and Australasia.

Before the war Russia had become a very important source of supply for dairy products, ranking next to Denmark in the export of butter. It would seem to be very doubtful, in the disorganized state of that country, if Russian butter will cut much figure in the market for some time to come. So much the better for Canada.

Of course it is impossible for anyone to predict how prices will rule after the war, but it seems quite certain that the price of dairy products will be relatively high compared with other farm products.

Oleomargarine Not Popular.

The quantity of oleomargarine imported since the prohibition was removed down to July 31 was only 4,068, 647 lbs. and the quantity manufactured in Canada

to the same date was approximately 6,000,000 pounds. These quantities are not large compared with 140,000,000 pounds of butter, which we consumed during the same period. The actual consumption of oleomargarine is even less than the figures given, because there are large quantities now held by importers who cannot dispose of it. The sale of oleomargarine has been decreasing since the first months after its introduction. A large number of people purchased it once out of curiosity and many others being disappointed in the quality have discontinued using it. In view of these facts it has been rather curious to find the daily press recently displaying such headlines as "An Amazing Increase in Oleomargarine Consumption," etc., etc. The introduction of oleomargarine has probably had some effect in discouraging the production of dairy products, though to what extent it is of course impossible to say.

During the early part of the season the receipts of cheese at Montreal were running behind those of 1917, but the shortage has been wiped out and receipts now exceed those of last year. Montreal receipts are a good index of cheese production in Canada and they now indicate that the season's make will be fully up to last year, and probably a little larger. It is claimed that the make of cheese was curtailed during April, May and June by the desire of the farmers to have skim-milk for feeding young animals. The fact that the stock of butter in Canada on August 1, 1918, exceeded last year's quantity on the same date by nearly 3,000,000 pounds gives some color to this view. No butter was exported in either year prior to August 1, so the figures are strictly comparable. The stock of cheese on hand on August 1 this year was much smaller than it was last year, but that is explained by the fact that the Dairy Produce Commission has been able to clear all receipts promptly this year, while last year there was a large accumulation on August 1 on account of the delay which occurred at the beginning of the season.

Two new milk condensing factories have been started this year, the supplies for which have been drawn from cheese factories. It is evident from the facts that the production of milk continues to increase. The total production of milk is the important thing. We should get away from the habit of drawing conclusions as to the state of the dairying industry in Canada from

what is happening in any one of its branches, or the tendency in any particular locality to make more or less of any one product.

Herd Improvement Rapid.

As I have pointed out elsewhere, even the number of cows is not a true guide as to progress, or the lack of progress, in dairy production. Owing to the improvement which has been made in dairy herds during the last 10 years, 3 cows are now producing as much as 4 did, or in other words it would have taken an increase of over 800,000 in the number of cows to give the increase in milk derived from the improvement in herds. This improvement will continue if the keen interest now being shown in the cow testing schemes carried on by the Dairy Branch is any criterion, and if so, it will be a very important factor in the future of the dairy industry.

Now it is easy to calculate the increased production but it is not so easy to arrive at the increased profits which have resulted from herd improvement, but it goes without saying that the increased profits from the increased yield of milk must be very considerable, and should have an important influence on the future growth of the dairying industry.

There will be some butter imported this year into Western Canada from New Zealand, not because of any scarcity but because it can be laid down in Vancouver at less than Canadian butter. The price is relatively low in New Zealand and they are taking advantage of some freight space which is available. It will not affect the price of butter in Eastern Canada, the net result being that we will have just that much more to export at a higher price.

Dairymen have an assurance of a stability of prices as long as the present plan of exporting through a Commission is continued. All speculation is eliminated, and it is not likely that prices will be lower than they are now while the war lasts. The Imperial Ministry of Food realizes that a good price is necessary to encourage production.

Since the production of milk has continued to increase under the handicap of the existing shortage of labor, it would seem more than probable that there will be a still larger increase after the war is over, and when the labor situation has again become normal.

What the Dairy Breeds Have Done in 1918.

If it is true, as some contend, that the success of the Dairy Industry in the past and the hope of the industry in the future lies in the use of pure-bred animals, then the various breed associations that are engaged in waging a relentless war against the scrub, wherever it may be found, are playing a most important part in the upbuilding of the live-stock industry in Canada, and are vitally concerned in the production of the most nourishing food known in the human diet. Breed associations as a rule are not credited with showing a great deal of interest in the problem of milk production on a commercial scale, but are thought to be interested almost solely in the dissemination of pure-bred animals. The connecting link between the work of the breeder and the * milk producer is becoming stronger every day, and exists by virtue of the fact that great and increasing emphasis is being laid upon the milk and butter-fat records which breeders are able to secure from their pure-bred animals.

It is only natural, therefore, that the eyes of all dairymen should be turned in the direction of the breed associations, and that the progress made by these associations in the building up of creditable performances and the sale of stock for high prices should be watched closely by all concerned with the development of the industry. We have attempted to gather together here in a limited space a brief account of the progress of the four common breeds since the beginning of the present year. Much has happened in the domain of herd testing and in the auction ring that must be left untouched at this time; many individuals have broken records in their various classes whose praises we dare not take space to sing, and much also has happened since 1918 came to us that we have not been able to gather together. All that we can do is to note the outstanding records and prices which have accompanied the extraordinary progress of all the breeds, leaving the reader to ferret out, at his leisure, such of the remainder as will interest him.

Holstein-Friesians.

CANADA.—Probably the most notable Canadian record made since January first, 1918, is that of Lakeview Dutchland Artis, whose seven-day butter record of 43.05 lbs., from 564.5 lbs. milk, displaces May Echo Sylvia, former champion in the mature class for the seven-day test, by 2.05 lbs. Lakeview Dutchland Calamity Rose in the senior two-year-old class for seven days made a record of 31.71 lbs. butter from 496.9 lbs. milk and displaces Alta Posch, champion in this class for 16 years with a record of 27.06 lbs. butter from 586.15 lbs. milk. In the Record of Performance tests there are also two new champions; Posch Queen Wayne, milk 25,085 lbs. and butter 1,121.25 lbs. displaces Toitilla of Riverside, milk 24,094 lbs. and butter 1,057 lbs. in the mature class, while in the three-year-old class Calamity Show Mechthilde 2nd, with a record of 23,274 lbs. milk and 1,053.75 lbs. butter displaces Plus Pontiac Artis, whose record is 990 lbs. butter from 21,018 lbs. milk. Other very creditable records have been made, among them being that of Low Banks Queen Pontiac Korndyke, whose record of 553 lbs. milk in

seven days tied the world's record for a heifer freshening under 24 months of age.

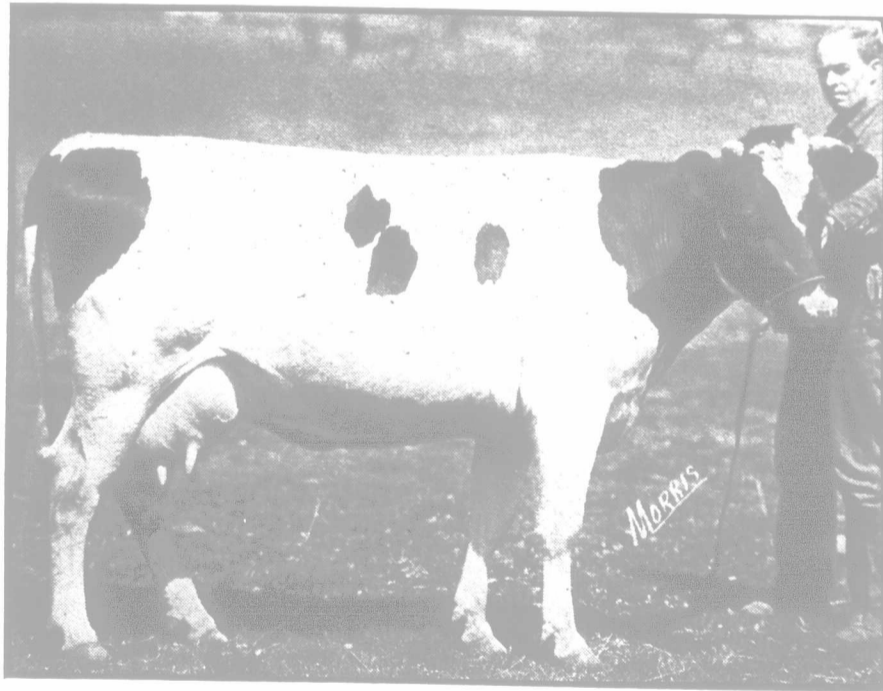
Several notable auction sales have been held so far this year in Canada, and a few animals have changed hands at handsome prices. The highest-priced bull so far this year at Canadian Holstein auctions was Riverside Johanna Pontiac sold at the Hamilton Consignment Sale for \$2,000, while the highest-priced female was Hill-Crest King Pontiac Rauwerd, sold at a previous sale for the tidy sum of \$4,400, buyers and breeders in both cases being Canadians. At the latter sale two other females, Hill-Crest May Echo Countess and Hill-Crest Echo Sylvia Rauwerd sold for \$3,000 and \$2,900, respectively. Canadian Holstein progress is also reflected in the remarkable prices paid for Canadian-

sales of Canadian-bred stuff point unmistakably to a high regard for Canadian Holsteins.

No importations have taken place from Holland, but several animals of high producing ability have been brought in from the United States. Among these are: Glen Alex Queen De Kol, a yearling heifer purchased at \$12,000; a bull calf, Sir Ormsby Maid Champion, bought for \$3,300; and the 39-lb. cow Riverview Pontiac Hopeful, purchased jointly from New York State by two Canadian breeders for \$3,550. It is worthy of note also that, pending ratification by the annual convention of the Association, the Board of Directors of the Holstein-Friesian Association of Canada have arrived at an amicable understanding with their sister association in the United States, looking to complete

reciprocity in the matter of registration between the two associations. This is a distinct step forward and will mean a saving of nearly \$100 in the registration of some animals whose ancestors are not already recorded in the herd book of the country to which they are being shipped. There have been no changes in the rules governing registration in the Canadian herd book, nor have there been any changes in the Record of Merit or the Record of Performance rules.

UNITED STATES.—World's records for butter-fat production in the seven-day, thirty-day and yearly divisions have been added to the already lengthy list which the American Holstein has compiled. Early in the year Lady Netherland Pontiac, a junior 4-year-old, captured the world's championship with a production of 43.59 lbs. butter (583 lbs. milk) during a 7-day official test. Then a California cow, Miss Valley Mead De Kol Walker, broke the world's record for



Rose DeKol Wayne Butter Boy.

World's record two-year-old yearly butter producer—1142.32 lbs. butter from 20,830 lbs. milk.

bred animals at the National Sale at Milwaukee, held at the time of the annual convention of the American Association. World's record prices for cattle of all breeds were reached by the sale of a Canadian-bred bull calf, Champion Sylvia Johanna, for the huge sum of \$106,000, while Het Loo Pietertje, world's record champion junior two-year-old butter producer for seven, thirty and sixty days, also consigned by a Canadian breeder, brought \$12,750. We understand that this heifer was really the highest-priced female in the big sale, owing to the fact that there was some dispute as to the terms of sale of another female knocked down at a higher figure, but later re-sold at \$10,000. Such

fat in the 8-months-after-calving division, as a junior 3-year-old; her butter amounting to 25.25 lbs. in 7 days. Another world's record was attached by Fairview Korndyke Mata, who displaced her stablemate, Ormsby Jane Segis Aaggie (since dead) for 30-day butter-fat production. Fairview Korndyke Mata's figures for 30 days are 148.253 lbs. fat, equal to 185.32 lbs. butter. The senior 3-year-old world's record has also gone to another stablemate, Rag Apple Korndyke, her 7-day official test crediting her with 42.45 lbs. butter (665.6 lbs. milk). Not all the records that have been made are for short-time production; Rose De Kol Wayne Butter Boy, an Iowa cow, making a world's record for butter produc-

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tion. This record was commenced as a 2-year-old, and by producing 20,830 lbs. milk, 1,142.32 lbs. butter in one year, Rose De Kol Wayne Butter Boy became entitled to the championship over all other living 2-year-olds for yearly butter.

Prices for Holstein cattle have reached the highest ever known in the history of the breed. At the record breaking sale at Milwaukee 175 head of Holstein cattle, consigned by leading breeders of the country, sold for a total sum of \$425,810; an average price of \$2,433 per head, eight animals selling for \$10,000 and upwards. At the A. W. Green sale in Ohio, 114 head averaged \$809 per head; \$25,000 being paid for a 4-months-old son of a 33-lb. bull. At this sale 15 young daughters of a three-quarter brother to the 50-lb. cow brought an average of \$890 apiece, and nine calves averaged \$840 each. \$10,000 was paid at the J. B. Irwin sale, in Minnesota, for a 2-months-old bull calf; 73 head of animals averaging \$618 per head. In March last 203 head of Holsteins sold at Syracuse for \$96,200; an average of \$474 per head, one consignment consisting of 48 head averaging \$801 per head.

The membership of the National Association of America has now reached over 11,500; a total of 1,900 having been added during the past fiscal year. There are upwards of 180 Holstein clubs in 34 States of the Union, all doing good work.

ENGLAND.—Up to July 20th, 1918, 300 Friesians had been sold in England and Scotland, this year, for £56,356, or a general average of £187. Eske Hetty, England's only 24,000-pound cow sold for 3,500 guineas, while Routh Blossom 3rd brought 1,700 guineas at the same sale. The record price this year in England for a bull is, so far as we know, £3,000; while 2,000 guineas was also paid for Commieston Roland. High averages at some English sales were: May's sale, 35 head averaging £382; Murton & Long's sale, 64 head averaging £172; and 36 head at Powell's sale averaging £316. A South African cow, Sijke 4th, sold for £1,000.

Jerseys.

CANADA.—The record for butter-fat for the year in the Canadian R. O. P., any age, any breed, is held by Sunbeam of Edgeley with 18,744 lbs. milk and 926 lbs. of butter-fat; while the record in the four-year-old class is held by Beauty Maid with 14,852 lbs. of milk and 872 lbs. of butter-fat; this is also the second highest for any age or breed. Both of these cows are Canadian-bred Jerseys with imported blood close up.

Jerseys in Canada have been commanding a higher average price than ever before. At a sale in Woodstock, the cow Beauty Maid, mentioned above, was sold for \$1,200.00. Several Canadian breeders attended the large sales in the United States during April and May and made some purchases, the highest price paid being \$2,200 for Les Prairies Bessie 3rd. A daughter of the imported bull, Rower, owned in Canada, was purchased for \$1,750, and a Quebec breeder purchased Poppy, the granddaughter of Golden Maid's Prince, for \$1,375.

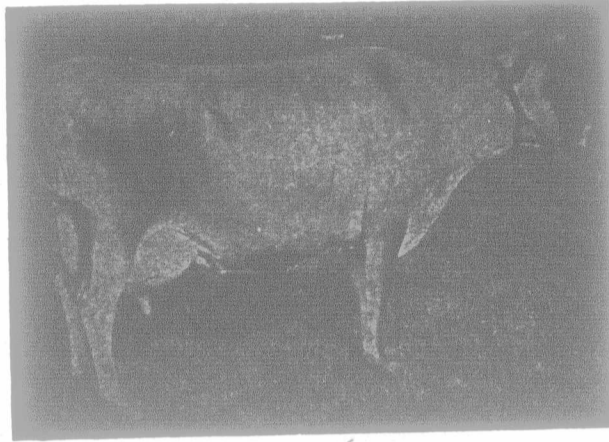
Only one importation, consisting of 35 head, has been made from the Island of Jersey. These arrived at Quebec on July 20th, and include Fern's Oxford Noble 2nd, purchased for about 600 guineas, and the grand champion cow of the 1918 Island show and her two daughters.

For several years the Canadian Jersey Cattle Club has been negotiating with the American Club to get proper reciprocal relations. About three years ago an arrangement was made whereby the American Club would accept the Canadian Registration Certificates for a Canadian record animal, providing all the registration certificates and transfers of the animal and all its ancestors back to those records in the American Club were produced. This was very hard and awkward to work, but during the past few months arrangements have been completed whereby the American Club accepts the Canadian, and the Canadian the American Clubs' registration certificates at face value.

Two years ago when a Jersey breeder of Red Deer, Alberta, joined the war, the major portion of his Jerseys went to the Peace River country. It was thought that Jerseys would not do as well so far north, but the experiment has proven so satisfactory that this year another carload of registered Jerseys has been taken into the Peace River District. This is said to be the most northerly herd of pure-bred cattle in Canada.

Registrations for the first six months in 1918 show a decided improvement. Receipts for membership for the same period are only fifty-two dollars behind the entire year of 1917. The importation of Jerseys to Canada for the first six months amounted to twenty head, exclusive of the thirty-five head mentioned above.

UNITED STATES.—The Jersey breed in the United States has much more than held its own since the beginning of the year. Sophie 19th of Hood Farm, former champion butter cow of the breed has firmly established herself as the champion long-distance cow, by completing her seventh official record with 15,948 lbs. milk and 1,059.8 lbs. butter. Her total production for the seven official records amounts to 91,948 lbs. milk and 6,600 lbs. butter. Her best record was made at seven years of age when she made 1,248.8 lbs. of butter from 17,557.8 lbs. milk. The world's record for



Sunbeam of Edgeley. Champion butter cow of Canada.

junior three-year-old Jerseys was smashed by Vive La France, an Oregon cow with a production of 892.63 lbs. fat from 12,744.8 lbs. of 7% milk. A Jersey cow, Blue Fox's Eminent Chromo, has produced 866 lbs. butter-fat in one year in South Carolina, the greatest amount of butter-fat ever produced by one individual south of the Mason and Dixon Line. At one time 20 Jersey cows established new State records within a few weeks, and the average production of five cows reported from the State of Washington exceeds anything ever recorded from one State for a similar period.

Many Jersey auctions have been held during the past eight months, but three in particular seem to indicate the progress of the breed. At the Butler sale in the spring, Oxford's Briar Flower established a new record price for a Jersey female, when she sold for \$10,000. Just a few weeks later at a sale in Massachusetts, Sophie's Agnes, granddaughter of Sophie 19th of Hood Farm, sold for \$10,019. At this sale 66 head netted \$60,198. Previous to the sale of Oxford's Briar Flower and Sophie's Agnes, the record price for a Jersey female stood at \$7,000, paid for Lady Viola in 1911. Oxford's Briar Flower was one of the Butler importation of 95 head (35 head of which were sunk at sea) made early in the year. At this sale 60 head sold for \$80,115. Nineteen animals sold for more than \$1,000 per head. At the Cooper sale 96 animals were

sold for \$80,555. Fifty-one cows averaged \$787; 32 heifers averaged \$412, and 12 bull calves averaged \$579. The record price for a Jersey bull this year is \$7,500, paid for Sophie 19th's Tormentor at the Massachusetts sale.

ENGLAND.—The highest average for Jersey sales in England this year was the Carson average of £89 for 27 head.

Ayrshires.

CANADA.—The advancement of the Ayrshire business is indicated by the fact that for the first six months in 1918 there were recorded 2,334 Ayrshire pedigrees and 2,315 transfers, an increase of 64 pedigrees and over 200 transfers more than for the same period last year. There has been a slight falling off in entries to the R. O. P. test, there being only 251 applications for this period as against 307 for the same period in 1917. The number of cows that have qualified in this test for the corresponding period has increased from 92 to 95. The decrease of entries to the R. O. P. is due largely to the serious labor situation and the shortage of labor is forestalling entries to the R. O. P. Also, it is in a measure due to the scarcity, extreme prices of and inferior quality of all millfeeds, since men accustomed to certain concentrates which have given excellent results, cannot purchase certain of these feeds to-day at any price.

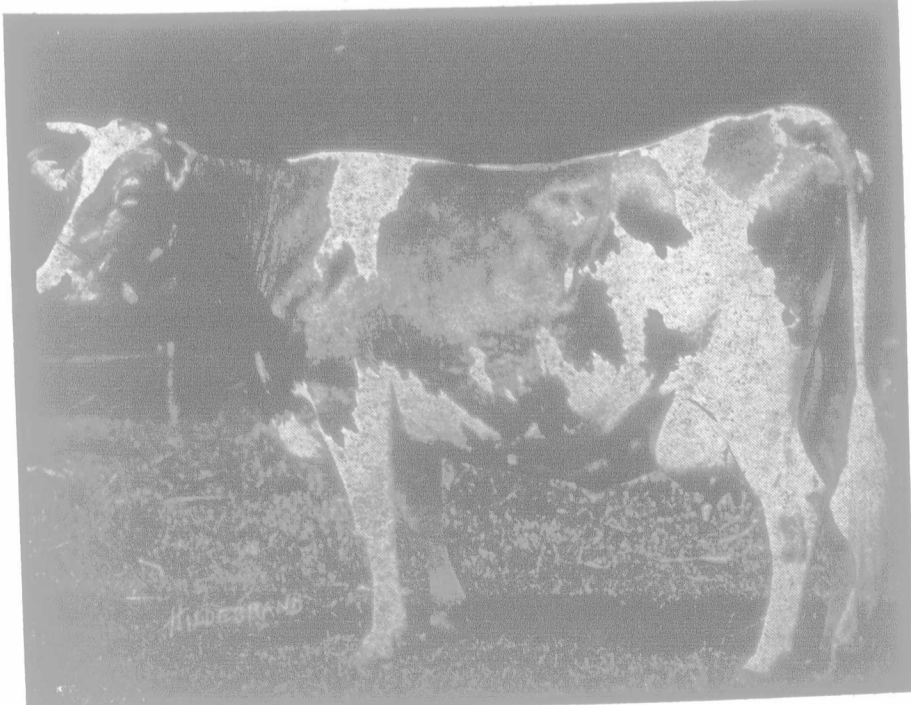
No records have been broken, but some exceptionally good records have been made in the various classes. The following cows head their respective classes in the period mentioned: Mature class, Louise, 16,038 lbs. milk, 650 lbs. fat; Four-year-old class, Middy, 13,288 lbs. milk, 533 lbs. fat; Three-year-old class, Blossom of Hickory Hill, 10,285 lbs. milk, 383 lbs. fat; Two-year-old class, Snowdrop of Hickory Hill 2nd, 10,933 lbs. milk, 449 lbs. fat. The majority of the cows that have qualified in the period in question are owned in Western Ontario.

There has only been one importation of Ayrshires from Scotland, and this consisted of 49 head, made up of 8 yearling bulls, 10 cows over 3 years, and the balance yearling and 2-year-old heifers. One of the bulls is the highest-priced Ayrshire yearling that ever left Scotland.

The event of the year in Ayrshire circles has been the great Ayrshire consignment sale at Hartford, Conn., on June 11th and 12th. At this sale record prices were made, and a Canadian-owned cow for many years and one of our champions, Lochfergus Cherry (imp.) made the second highest price at the sale, \$3,750. At this sale thirty-eight cows brought an average of \$702; 87 heifers averaged \$231; 15 bulls averaged \$314; while the entire consignment of 145 head, including calves, averaged \$359. Three times during the afternoon a new figure was reached in Ayrshire cow prices. The final record was made when Pansy's Daughter of South Farm was knocked down for a new Ayrshire record price of \$4,200. Ten animals from Canadian herds were consigned to this sale and brought creditable prices.

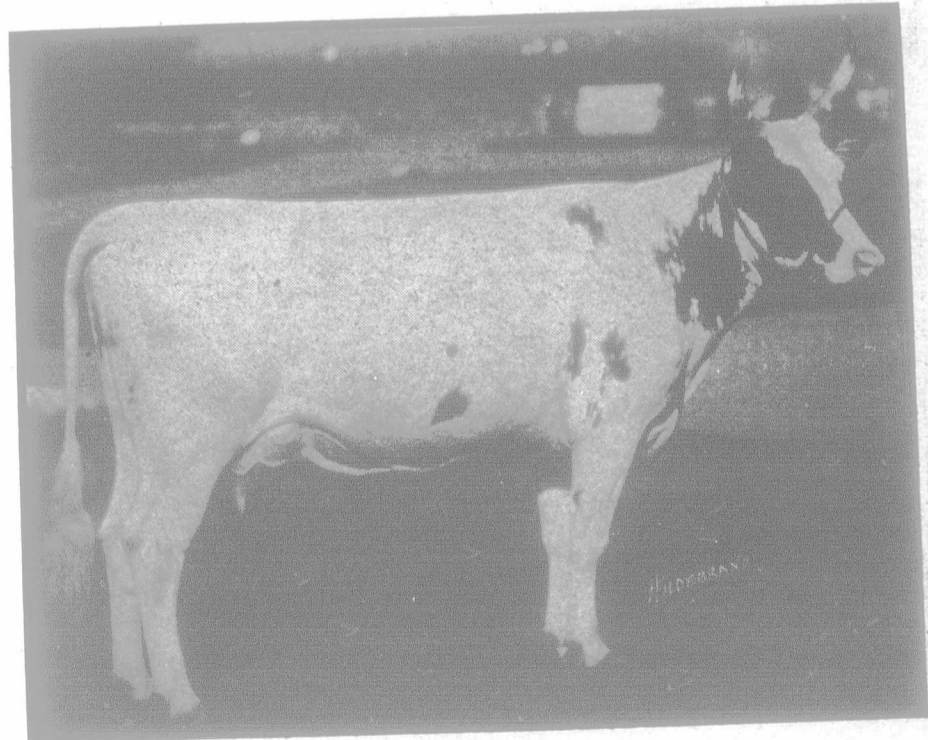
UNITED STATES.—No changes have taken place in the leading records of the seven classes since the beginning of the year, and no records have been broken among Ayrshires in the United States so far as production is concerned. Several individuals have completed very creditable performances however, and among them are three which are worthy of mention. McAllister's Betty, a Canadian bred cow owned in Pennsylvania, completed her third official test having produced 19,189 lbs. milk and 785.80 lbs. fat, test 4.10%. Her average for the three periods is 13,963 lbs. milk, 574.50 lbs. fat, test 4.11%. Rosella Webb, owned in Massachusetts, has established herself in second position among the senior four-year-olds (led by August

Continued on page 1419.



Lirden Girl of Harbor Hill 3rd.

This Guernsey cow leads her class in the United States with a yearly production of 15,032.9 lbs. milk, and 785.89 lbs. butter-fat.



Pansy's Daughter of South Farm.

Sold for \$4,200 at the New England Ayrshire Club sale in June. She is the highest priced Ayrshire female ever sold at auction.

branches, or the to make more or less Rapid. even the number of press, or the lack of y herds during the ng as much as 4 did, ken an increase of t to give the increase n in herds. This keen interest now es carried on by the so, it will be a very dairy industry. increased production he improved profits improvement, but it ed profits from the y considerable, and the future growth orted this year into not because of any own in Vancouver e price is relatively aking advantage of ble. It will not n Canada, the net that much more to a stability of prices ng through a Com n is eliminated, and r than they are now Ministry of Food sary to encourage s continued to in- existing shortage of ble that there will r is over, and when normal.

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mistakeably to a from Holland, but ability have been Among these are: g heifer purchased Maid Champion, Riverview Pontiac w York State by It is worthy of the annual con- of Directors of of Canada have g with their sister oking to complete y in the matter of n between the two s. This is a dis- forward and will ving of nearly \$100 gistration of some ose ancestors are ly recorded in the of the country to are being shipped. e been no changes es governing re- in the Canadian, nor have there changes in the Merit or the Rec- ormance rules. STATES.—World's r butter-fat pro- the seven-day, and yearly divis- been added to the ngthy list which can Holstein has Early in the year erland Pontiac, a ear-old, captured s' championship duction of 43.59 (583 lbs. milk) -day official test. ifornia cow, Miss d De Kol Walker, world's record for on, as a junior 3-.25 lbs. in 7 days. y Fairview Korn- ate, Ormsby Jane utton-fat produc- es for 30 days are utter. The senior gone to another er 7-day official (665.6 lbs. milk). ade are for short- e Butter Boy, an or butter produc-

POULTRY.

Judging Utility Barred Rocks.

BY PROF. W. R. GRAHAM, POULTRY DEPT., O.A.C., GUELPH.

A Barred Rock, or, for that matter, any general-purpose breed of chickens, should be judged as to their ability to produce eggs and meat economically.

It is of prime importance that in order for a bird to do these things it must be vigorous, or in other words, able to turn the feed consumed either to eggs or meat, and at the same time be in good health. Health and ability to work hard in meat or egg production are essential. It must be conceded that up to the present at least we cannot always predict, or tell without failing, what the bird's ability is, yet, on the other hand, we usually find certain characteristics common to nearly all good individuals.

A vigorous bird has a bright, active eye. As pullets and cockerels, they show considerable red color on the side of the shanks and the cockerels are very faithful in crowing loudly and often. Frequently the head is very neat and clean cut, this being especially true of high laying hens. If the reader will look at the heads of the two birds in figure 1, a marked difference will be seen between them. The bird on the right has a strong beak and a prominent, active eye—she is alert. The bird on the left has not a very bad head, but it is not good; the eye is dull and sluggish and the beak tends to be long and straight. Avoid crow-headed, hollow-eyed chickens. Vigor means ability to stand up under trying conditions.

The question of a hen's ability to lay a large number of eggs is a question of profit or loss, and as good laying hens, during their first year's performance, are usually the best hens the second year, the culling of the poor producers during June, July and August, or before they moult, becomes a profitable undertaking.

Figures 2 and 3 show, in the head and body type, fair specimens of a good layer (figure 2) and a hen whose surplus food over body maintenance goes to meat, or, more particularly, to internal fat (figure 3). The former has a clean-cut head and a bright eye. The body shape is neat, the crop full, and the fluff, or loose feathers under the tail extend well backward, but do not sag much below the body line. The bone of the legs is flat, not round. Such a hen may be a good layer. Hens of the appearance of the one in figure 3 are seldom good performers. The head itself shows a fleshiness seldom going with high egg production. The fluff feathers sag, indicating a large deposit of internal fat, and the bone of the legs appears round. She is a fair specimen of a real good, healthy, lazy hen; she is a slacker.

One can tell at this season of the year fairly well about how many eggs a hen has laid. With the yellow-legged breeds, such as Plymouth Rocks, certain changes take place that tell the story fairly well. When the hen lays, the yellow color gradually leaves the bill or beak, beginning at the mouth and progressing towards the end of the bill. When she stops laying, the color comes back again, beginning at the mouth; thus, we may have a hen with the base of the bill, or the part near the mouth, of almost white color, the centre of the bill yellow and the end or tip white. This means that the hen has had a rest or vacation during the last month, or that she has not laid thirty eggs without a rest. Now, a period of rest means about twelve to fourteen days with an ordinary Plymouth Rock. She may also moult a feather or so in her wings, which confirms her rest period. The color also leaves the legs beginning at the front of the shank and leaving the heel, or the back part of the shank nearest to the feathers last. Thus, a really high layer will have almost white legs, a white beak, and will not have moulted very much.

It is well known that a laying hen widens between the pelvic bones (fig. 4) and these bones on the best layers are usually quite thin and pliable (fig. 5). The width from the pelvic bones to the keel bone (fig. 6) indicates a good layer, especially where this portion is elastic or soft. If the hen is very fat the space will frequently be wide but hard (fig. 7). This condition simply means a large deposit of fat, which usually means low production.

A good layer also has a thin skin, and usually, if not always, her toe nails are much shorter than those of the poor producer.

A good laying hen may, and frequently does, carry considerable flesh. The flesh on a bird is determined by the muscular development on the keel or breast bone (fig. 8). The breast is fairly long, moderately deep, and is well muscled to the very tip. The thigh is also well muscled. The smoother and softer the scale on the feet the better quality is the flesh.

In general, desirable birds are the ones showing a clean-cut head, having a bright, active eye and with legs and breast well muscled. The skin is thin, and the space between the pelvic bones and the end of the keel is wide and elastic. The good hens now have legs nearly white; their toe-nails are short and they get up early in the morning. Very few good layers moult early. A hen that has laid a large number of eggs looks the part. Her plumage is dry and frequently dirty. The hen that looks as if she had stepped out of a hand-box needs watching—she is generally a boarder.

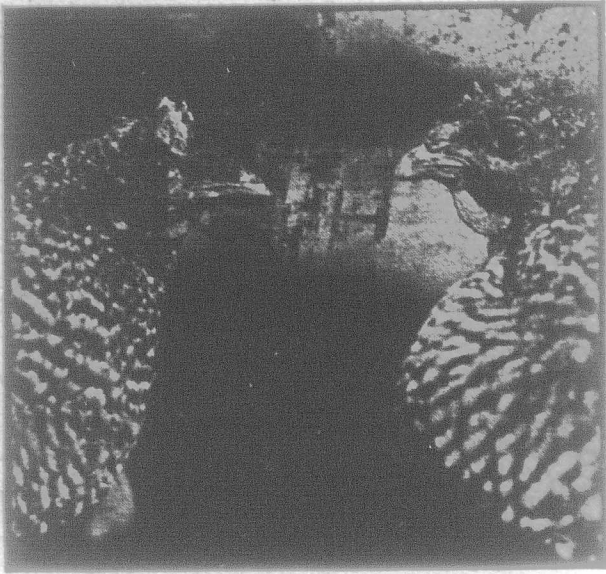


Fig. 1. Look to the Head for Vigor.
A strong beak, full face and active eye are desirable.

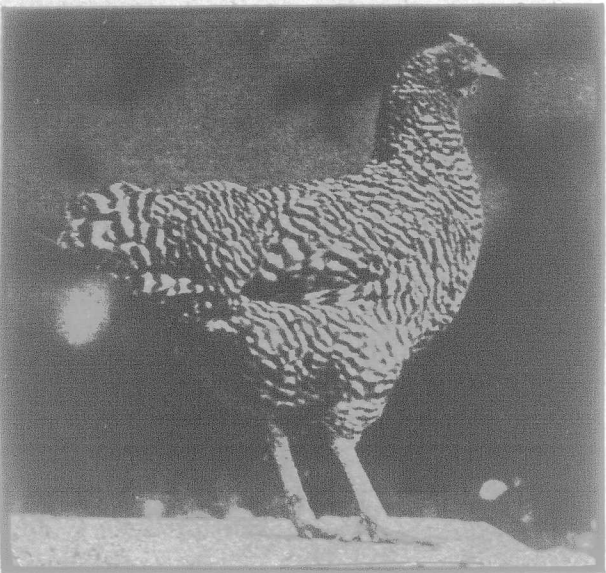


Fig. 2. Fair Specimen of Good Layer.
Note the clean-cut head and neat body shape.

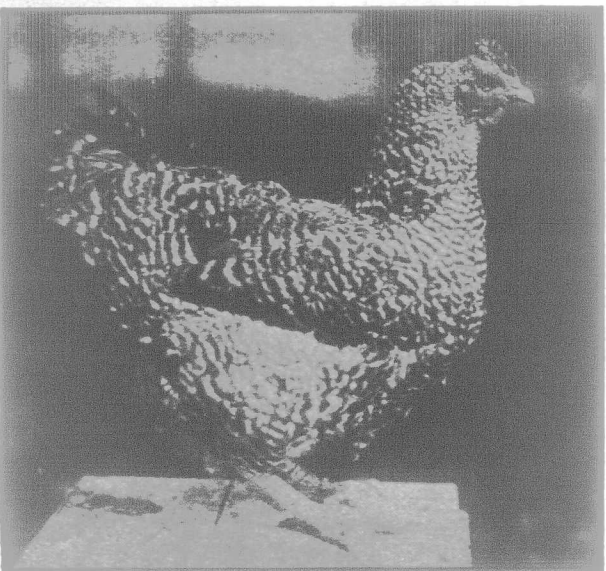


Fig. 3. This Type Seldom Performs Well.
The fluff feathers sag and the head is fleshy.



Fig. 4. The Pelvic Bones are Wide Apart.
A good laying hen widens between the pelvic bones.

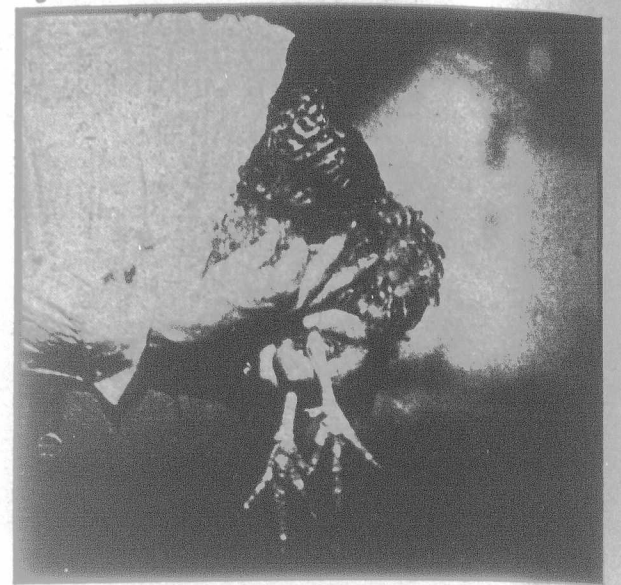


Fig. 5. Pelvic Bones are Thin and Pliable.
This is true of the best laying hens.



Fig. 6. Span from Pelvic Bones to Keel Bone.
In a good layer the span is wide.



Fig. 7. Hardness Means a Fat Deposit.
The working hen will feel elastic here.

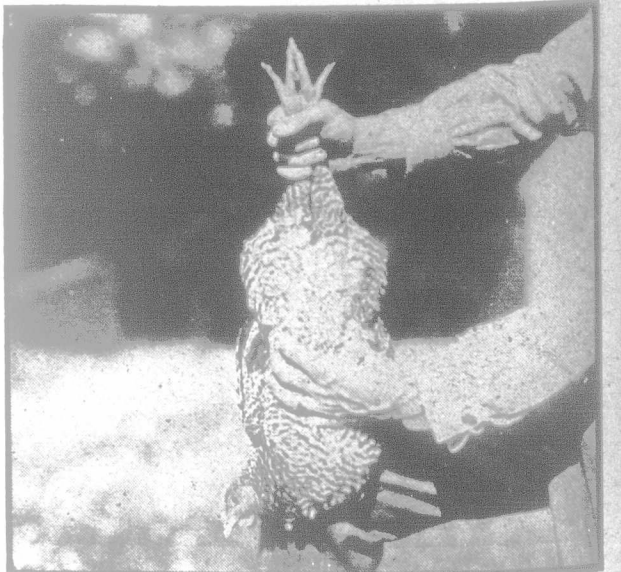
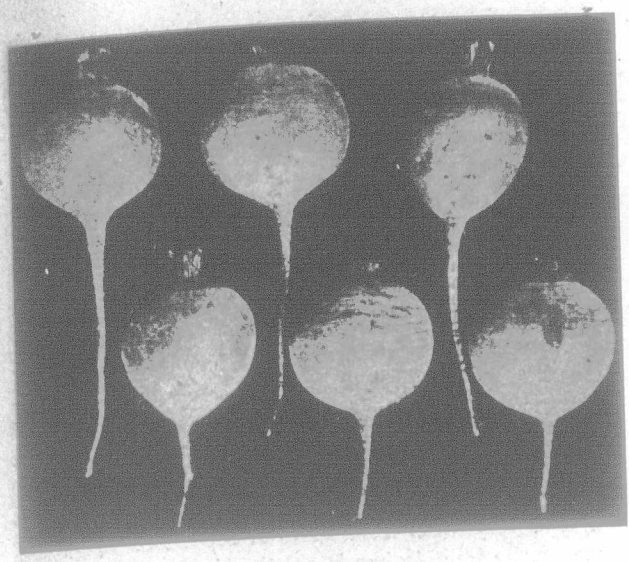


Fig. 8. Good Fleshing Indicated Here.
Muscular development on the keel or breast bone.

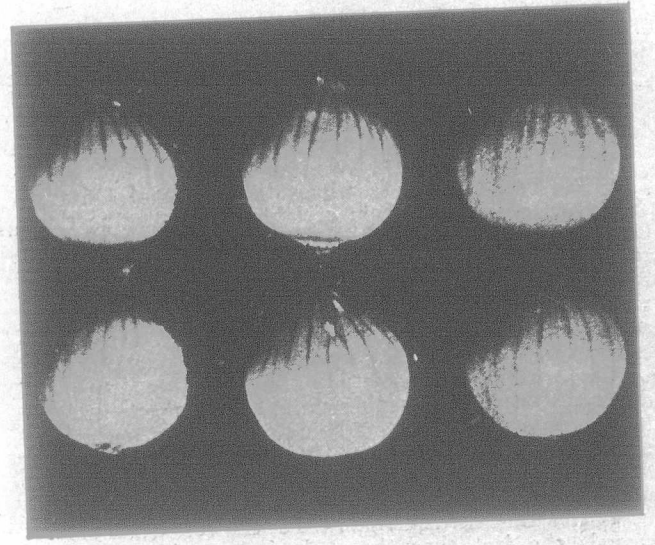


Detroit Dark Red Beets.
Good specimens of a well-known variety.

show a smooth, round shape, gradually wearing into a rather long, fine terminal root. The flesh should possess similar characteristics to those of the long type and all specimens must of course be uniform.

CABBAGE may be classified according to season or according to appearance. Early cabbage is generally round or heart shaped. In any case the head should be of fair size and heavy, showing firmness or hardness with freedom from insect injury or disease and as much crispness as possible. Late cabbage usually is round in shape or slightly flattened, with a dense formation of dark green outer leaves. The inside leaves should be cream color. Solidity and weight are of course desirable. What is known as Savoy cabbage is also round or slightly flattened in shape with leaves closely compacted and showing a fine curl. The leaves should be dark green. Red cabbage is slightly conical or round and is dark red in color. Weight and size of head is important in all cabbage.

CAULIFLOWER shows a shape similar to cabbage and should be as large as possible. The crown of the head should show a nice, even curve and in an exhibition specimen a few of the lower leaves should be attached to the head. The head itself should show a dense formation of flower or curd and there should be an entire absence of small leaves in the head. In addition to this



Southport Yellow Globe Onions.
Flat onions are undesirable—globular preferred.

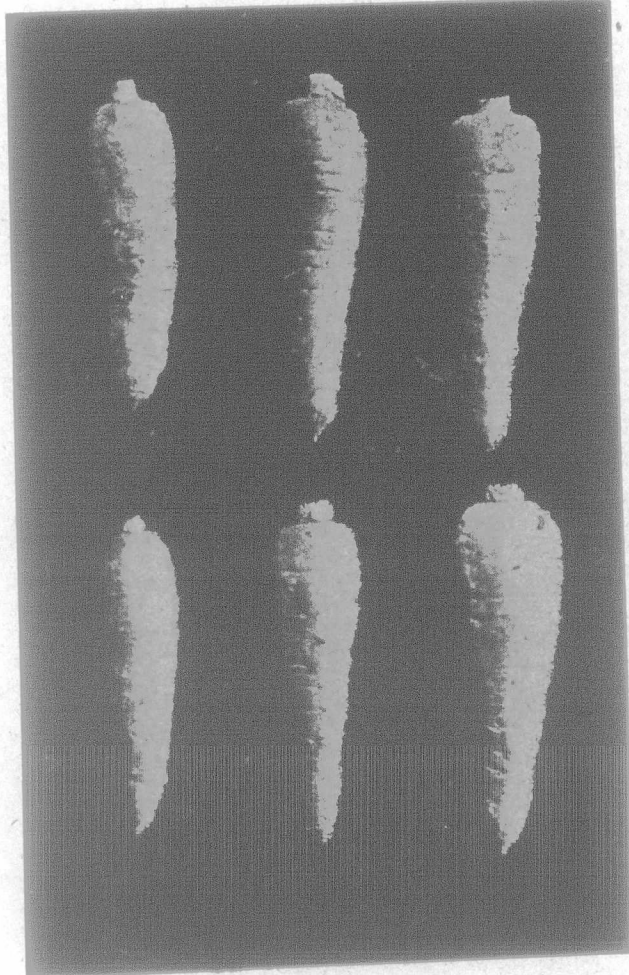
HORTICULTURE.

Type and Quality in Vegetables.

Type is a term which is open to more than one meaning if one is looking for an exact definition, for it may mean the peculiar distinguishing features of a particular variety or strain, or the combination of characteristics shown mutually by several strains of one variety such as the different strains of certain cabbage varieties, for instance, or, it may include several varieties showing characteristics sufficiently alike to entitle them to be grouped together. Type and quality are perhaps the two most essential points to emphasize with regard to any class of farm produce where varietal characteristics need to be considered. Quality is of first importance in considering the adaptability of improved types or varieties of vegetables for cultivation. Quality has to do with such desirable table characteristics as maturity color, texture and flavor, bearing therefore a direct relation to the marketing problem. Type deals with distinguishing varietal characteristics, and, combined with quality and a knowledge of market requirements, serves as a basis for appraising new creations or improved strains.

At this time we have undertaken to show the characteristics of first-class specimens of the more important vegetable crops, but it is obviously impossible to show type in connection with specific varieties in as much as these varieties are so numerous that very minute description would be needed to show differences. The five accompany illustrations, however, have been furnished by Professor J. W. Crow, of the Horticultural Department, Ontario Agricultural College, Guelph, as showing typical specimens of important commercial varieties of onions, beets, carrots, cabbage and cauliflower. It will be noticed that the various specimens shown in each photograph are very uniform as to shape, size and general appearance. It is, however, extremely difficult to get five specimens of any crop to look exactly alike; in fact, the law of variation is so invariably operative as to make it an absolute impossibility to get even two onions or two plants of any kind to look exactly alike. It becomes of prime importance therefore that in selecting specimens for seed production or for exhibition, we try to secure *as much uniformity as possible*, so that the various types will remain pure in our hands and thus enable us to intelligently grow and market the best possible product. Experience has shown the wisdom of this procedure.

BEETS are of two general types separated according to shape. They are either long or round. Long beets should be medium in size to be of the best quality and must be smooth and free from side roots, gradually tapering from the crown to the tip. The texture in a first-class sample is firm and the flesh must be fine, tender and dark red in color, as well as showing freedom from white lines. The top of the specimen must be small and compact. Round beets must be firm and



Chantenay Carrot.
Smoothness and uniformity are points of excellence.

the curd should be pure white in color and show the varietal characteristics.

CELERY varieties differ materially to the experienced eye, but good specimens of all varieties show common points of excellence. The plant is appraised entire, minus only the roots and should be composed of numerous, long well-bleached stems, only medium in thickness. Very wide or thick stems show that coarseness or stringiness with which all are familiar in celery of poor table quality. There should be an absence of rust and rot and the texture should be crisp. Crispness is one of the chief points of excellence in celery and ranks next to that rich nutty flavor which makes well grown celery a real delicacy. The heart of the bunch should be large and it is well to remark that also the leaves or stems should be straight and even, since this adds to the appearance of the product. A discount should be placed upon small stems in the bunch.

SWEET CORN is a common crop of which one seldom sees perfect specimens. Size of the cob is to some

extent a matter of variety, but good size is always desirable. Above all things the cob should show good development and should be filled out completely at the base and the tassel end. Rowing of the grain is important and perfect specimens show straight rows of kernels which continue to the tip of the ear. The form of the grain of kernel is important and the color also, while the kernels should be juicy, tender and sweet. In first class specimens also the husk should show a rich healthy green color and the ears should be uniform.

CARROTS may be divided into three types, long, half-long or medium, and short. The commonest types are the long and the half-long, the well-known Chantenay variety, herewith shown, being of the latter type. As will be noticed, the root edible portion is medium in length, tapering gradually to a blunt point to which is appended a fine fibrous root. The skin should be smooth and the flesh should be tender and possess a rich flavor. Cross sections of carrots should show a small core and a large outer ring of flesh. The long type shows a gradual tapering from the crown to the tip and freedom from side roots. The crown should show no green and the top should be compact, while the whole root should be straight. The texture must be crisp and tender.

CUCUMBERS of first class type and quality commonly possess a dark green color extending well to the tip. Indoor varieties are much larger than outdoor varieties and occasional specimens sometimes reach a length of two feet or more. This is true particularly of the so-called English varieties which possess a distinct neck, a characteristic which growers are endeavoring to get away from in this country. For this reason the thickness of the cucumber should be carried well out toward the base and blossom ends. Smoothness is likewise a virtue, particularly in indoor varieties, since spines serve no useful purpose and can very well be dispensed with. Certain varieties, however, are characteristically spiny and this should be taken into consideration. In general, smoothness, thickness, straightness, dark-green color and good weight are evidences of quality.

ONIONS of the large type are either round or globular in shape according to variety, the latter being preferred. The onion should be smooth, of good weight and have a small well-ripened neck, while the texture must be firm and solid, especially at the base of the neck. Pickling onions should range from one-half to three-quarters of an inch in size and show uniformity in size and shape. They must be clean, firm and white in color.

TOMATOES of the varieties commonly grown are either red or pink in color, but there are also yellow sorts and varieties of various shapes and sizes. Commercial varieties, however, show an even, well-rounded shape with smooth skin, colored evenly all over. The eye should be small and the texture firm, so that the specimen will be meaty and possess good weight, although of medium size. For exhibition the blossom end should be allowed to remain.

SQUASH should show good size and must be heavy, with a firm texture, color and shape varying according to the variety. Vegetable marrows, of good quality are large in size, oblong in form and show smoothness and evenness along with uniform thickness and good weight. The texture must be firm and over-ripeness is not a desirable condition. Color varies from a rich creamy yellow to a mottled green.



Copenhagen Market Cabbage.
Firm, crisp, heavy heads indicate quality.



Early Snowball Cauliflower.
Whiteness, density and good size catch the market.

FARM BULLETIN.

Lambton and Essex Notes.

One cannot help wondering at the amount of work that has been accomplished on the farms of Ontario this year, despite the lack of labor. It must be that farmers are rapidly adjusting themselves and their methods to the serious reduction in available help and have adopted short cuts in the way of modified tillage methods, in addition to providing themselves with an added quantity of labor-saving equipment. It is, of course, well known that appeals for production, the well-known need for foodstuffs and prices for farm products more nearly in keeping with the cost of production, have brought about longer hours and harder work, but still the wonder of it is that the crops are being so well taken care of and the farm operations carried off so nearly on time as they are.

A trip through the Counties of Lambton and Essex reveals the fact that the grain harvest is completed almost without exception and threshing well under way. In fact, according to W. P. Macdonald, Agricultural Representative for Lambton County, threshing in Lambton is fifty per cent. completed, while J. W. Noble, Agricultural Representative for Essex County, was of the opinion that nearly seventy-five per cent. of Essex County's grain crop has been threshed. These counties are, of course, favored by a climate which provides early seasons, and it is only natural that the harvest and the threshing should be completed considerably in advance of most other sections in the province. The grain crop has been good. In Lambton County what amounts to almost a record crop in some respects has been harvested. The stubble in nearly all instances bears testimony to the extent of the crop, and instances were brought to our attention where yields of fall wheat as high as 52 bushels per acre had been secured, while spring wheat ran up to 36 bushels. It is interesting to note in this connection that Lambton County growers feel no concern as to the abundance of fall wheat seed for the 1919 crop. There is, in fact, a surplus of at least twenty-five cars which could be shipped out to other parts of the Province according to Mr. Macdonald, and farmers were somewhat uneasy at the action of the Provincial Government in practically setting a price of \$2.50 per bushel on imported seed. The quantity of seed provided for an emergency was thought to be and undoubtedly is very much in excess of what will be required to meet the deficit over the province. It is possible that none of the emergency supply will be needed at all.

Wheat in Lambton is weighing out well. One man sold 1,000 bushels to the elevator just as it came from the machine for a price of \$2.10, and it weighed just 62 lbs. per measured bushel. This is suggestive of the quality of the crop. One is struck in driving through Lambton at the great numbers of stacks noticeable everywhere. This is in contrast with many other sections of the province where stacks are rarely met with, the custom being to house all grain in capacious barns and, where necessary, to thresh for room. In Lambton, however, stacks are everywhere and barns rather small. Fall wheat has turned out much better than was expected early in the season, and fields which were nearly plowed under at one time turned out to yield as high as 25 bushels per acre.

Wheat in Essex has been good also, and yields as high as 55 bushels per acre were reported by threshers. Oats yielded up to 80 and 90 bushels, and barley as much as 67. These, of course, are exceptional instances drawn to our attention, but on the whole are indicative of the satisfactory nature of the crops. Essex and Lambton are both excellent corn counties, Essex particularly having become widely known for the high quality of her seed corn. We saw many excellent crops of both silage and husking corn, and in Essex County we noticed three fields which had been cut August 23. This is exceptionally early and, of course, the crops might have been better off for a few more days on the roots. One field in particular of White Cap Yellow Dent would have been benefited, for seed purposes at least, by a little later cutting. Corn was to be seen everywhere, much of it of splendid height and showing evidence of having been well cared for. As might be expected in a county where dairying is a minor branch of agriculture, only a small quantity is grown primarily for the silo. Much husking corn is to be seen, and before long cutting will be in full swing. The ears are large and well formed and the silk is brown and dried up.

Clover fields left for seed look exceptionally well, especially in Lambton, where there is promise of an abundant amount of clover seed. Many fields are strikingly beautiful with their masses of purple blossoms, while others had browned rapidly during the few days preceding our visit. East and south of Petrolia nearly every farm exhibited a field of seed clover, and, in fact, we understand that clover seed has played no little part in the prosperity of many farmers in that district. Flax, too, has developed quite an acreage in Lambton, and the crop this year has been taken care of in good shape so far. Mexicans imported for the purpose have done good work, and we understand have worked willingly. Part of the flax crop this year was not put into the ground early enough, but it has done well and the crop has been a successful one.

Everywhere it is dry. Dry is not a sufficiently strong term. The roads are inches deep in thick dust, particularly in the more sandy areas. The tobacco crop, a most important one in Essex, is stunted and unless the field has been in the hands of a good grower, empty spaces are conspicuous. Few good crops of

beans, another important crop, are to be seen; and no wonder, there has been no rain to more than lay the dust since the second day of July. It has been trying to rain for a month; clouds come up threateningly every day or so, but the rain never falls. It is a good thing for Essex County farmers that they have made rapid progress in draining the flat country and incidentally conserving soil moisture in dry seasons, by the liberal installing of underdrains. There are in Essex County alone, we understand, fifty ditching machines in operation, and in addition to 7,000,000 four-inch tile manufactured in the county each year there is a similar number imported.

Muskoka Farming.

EDITOR "THE FARMER'S ADVOCATE":

Though one would not record of the Muskoka and Parry Sound farming areas as is sometimes said of the Northwest, that every season is an exceptional season, still this beautiful region has its peculiarities and 1918 brought some notable encouragements and incentives to future endeavor. If there are drawbacks, these serve to spur on the resolute and progressive. In field husbandry, the outstanding new advance has been the success attending spring wheat growing in response to the call of a world need. Fall wheat not being counted a Muskoka crop, supplies of Marquis wheat for seed were secured through various channels, over 500 bushels being distributed by the Ontario Department of Agriculture Office, Huntsville. The results of the venture have been decidedly gratifying; the District Representative, F. C. Patterson, who appears disposed to proceed by a conservative way, reporting some really splendid crops, so that for seed and local milling there will be very considerable quantities when threshing takes place. Present indications point to the sowing of a greater spring wheat acreage in 1919, for which the land now under potatoes, turnips, corn and other crops for which manure was applied and involving good summer tillage, will provide a promising seed-bed readily put into condition with the disk, if not fall plowed. Another marked advance for which the natural conditions and present market demands are highly favorable is the continued increase in sheep raising previously recorded in "The Farmer's Advocate," and which merits more special reference at another time. The hay crop is probably lighter, taking the country over, than last season, and there were rather over-ripe fields of timothy being taken in during the last half of August, showing the difference in climate here compared with more low-lying parts of Ontario. Corresponding with other sections, the oat crop, an important cereal in these districts, is reported better than 1917. The particularly fine, sunshiny weather about the third week in August hastened the oat ripening and cutting and also the browning of the pea fields, a crop that does well and fits in naturally with sheep husbandry. Some of the late bloom, however, was pinched by an altogether exceptional and severe frost on August 2nd, which also proved destructive in certain localities more than others to susceptible vegetables. Visitors have been surprised at the excellence of the corn and the rapidity with which it matured during late August. The yield of wild strawberries and red raspberries appears to have been more luxuriant than usual this year. Specializing in the production of seed potatoes free from disease continues to receive attention by enterprising growers, and is encouraged by the Department of Agriculture. An official eye is being kept upon any appearance of mosaic and other yield-diminishing ailments, and observations have been made which will have a bearing in clearing up their pathology. Without professing to be authoritative, the opinion is expressed by one observer, that mosaic is due rather to weather conditions than to constitutional disease. At the lake summer health resorts there have been fewer visitors this season, at least of men of military or active working age. Women and children are greatly in evidence. For a couple of summer months many people take advantage of the tourist side line which creates a temporary demand for butter, milk, cream, eggs, berries, etc., at tempting prices, but the permanent advantage of it to the regular industry of farming is questioned. The conviction is entertained that corresponding energy devoted, say to sheep husbandry, etc., would result in more substantial returns, particularly when the minimum of men required for its prosecution is taken into consideration. The call of the world for meat and wool looks like a very dependable asset for the future. Here and there some few accumulations of fuel are observed, but they seem very limited compared with the great supplies of bush timber within sight, much of it wasting that would replace the empty town coal bins next winter if only it could be cut and got to them. The difficulty of securing sufficient men capable of wielding an axe in getting out logs for lumber or fuel is an evident present handicap to a most substantial industry.

Provincial Cabinet Ministers Returned.

Hon. George S. Henry and Hon. Dr. H. J. Cody, recently taken into the Provincial Cabinet by Sir William Hearst, as Ministers of Agriculture and Education respectively, were returned with good majorities at the by-elections held last week. Hon. Mr. Henry, who ran in East York, won by a majority of over 2,600. Hon. Dr. Cody had a majority of 4,838. Only 29 per cent. of the vote was polled in Northeast Toronto, and only 12 per cent. of the vote in East York.

Spud the Weeds Out of the Clover Field.

In districts where red clover can be grown successfully there is a chance for a double revenue. The hay crop is usually harvested late in June or early in July and the aftermath, the extent of which depends on weather conditions, makes excellent pasture for the stock, thus increasing the milk flow of the dairy herd, or aiding in making more rapid gains in the fattening steers. There is another revenue, however, which may be secured, especially if the farm is free from such noxious weeds, as buckhorn, dodder, rag weed, etc., and that is from clover seed which is never too plentiful at seeding time in the spring. The price of red clover seed for the past year or two has made the growing of the same a profitable sideline. Cutting the first crop early is one of the first requisites for a crop of seed, and the prevalence of the bumble bee is another important factor. If the field is being left for the production of seed, it is advisable to go carefully up and down the ridges and spud out any noxious weeds which may be found growing. The field is the best place in which to clean the seed. True, many weed seeds may be removed with the fanning mill, but owing to clover seed and many of the weed seeds being similar in size, it is next to impossible to remove all the weed seeds should any plants be allowed to mature in the field. The best and cheapest plan is to go over the field and hand-pick them out before cutting.

No special date can be set for harvesting the seed crop as it depends very much on the season. When the majority of the heads are well browned it is about time to commence cutting. If the seed is soft and not properly filled the crop should stand a little longer, even if a few of the early ripened heads are lost. The main thing to do now is to see that the field is clean, if the highest price is to be obtained for the seed.

Conditions Have Improved in the West.

Reliable reports indicate that conditions have very much improved in Western Canada as far as the crops are concerned. Frost did a great deal of damage in the north, but there has been a marked recovery in the drought area in the south, and conditions are not nearly so serious as they were a month ago. It is altogether probable, however, that there will be a large number of stocker and feeder cattle put on the market between now and the end of the year. A large number of American buyers are already on the Winnipeg market, and if Ontario farmers wish to secure this class of stuff it will be necessary for them to get into the market in some way or other. Of course, there will be a certain number shipped east on speculation, but the American buyers are, to a large extent, filling orders for farmers in their country. The wheat crop is now estimated to reach a point somewhere between 150 and 200 million bushels.

In Behalf of Sailors' Homes.

Those living inland do not hear very much about the perils and sacrifices which the sailors endure who man the mercantile marine. More than 15,000 have already perished, and many of these have left widows and orphans to mourn the loss of husband or father who went down to the sea in extremely perilous times. They did not falter in their duty so why should we, safe at home, hesitate to lend what comfort we can to the sorrowing ones whose lives have been darkened. By financial aid we can bring some material comfort to the destitute and bereaved families and thus assuage, in a measure, their great sadness.

Canadian industries, including agriculture, would have been at a standstill had not brave seamen manned the ships that carried our produce through the danger zones. We owe the sailors a great debt, and the opportunity of repaying this in a small way presents itself next week. All should respond liberally.

Wheat Prices.

The Canadian Council of Agriculture recently made a recommendation that the price of wheat be fixed at \$2.26½. It was explained that this price was recommended on account of the price at Duluth being fixed at \$2.24½.

A communication was read from the Fort William Grain Exchange recommending that the grain trade in Canada be handled the same as in the United States with a maximum price for wheat and a maximum price for flour.

The Northwest Grain Dealers' Association recommended that the margins on wheat prices be changed, suggesting that there be a buying margin of six cents on Nos. 1, 2 and 3, Northern wheat; a margin of seven cents on No. 4, and eight cents on Nos. 5 and 6.

Toronto, Montreal, Buffalo, and Other Leading Markets

Week Ending August 22.

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

	CATTLE					
	Receipts		Top Price Good Steers			
	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending
	Aug. 22	1917	Aug. 15	Aug. 22	1917	Aug. 15
Toronto (Union Stock Yards)	5,032	7,936	4,712	\$14.50	\$11.00	\$15.25
Montreal (Pt. St. Charles)	2,292	1,183	2,159	13.00	10.25	14.00
Montreal (East End)	1,904	1,425	2,017	13.00	10.25	14.00
Winnipeg	11,824	6,967	8,767	15.50	10.00	16.00
Calgary	4,779	1,230	5,241	14.00	8.50	15.25
Edmonton	1,379	543	1,389	13.50	7.75	13.00

	CALVES					
	Receipts		Top Price Good Calves			
	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending
	Aug. 22	1917	Aug. 15	Aug. 22	1917	Aug. 15
	594	847	788	\$17.50	\$15.50	\$16.50
	1,130	549	1,267	14.00	13.00	15.00
	607	295	595	14.00	13.00	15.00
	451	230	386	13.50	10.00	15.50
	111	90	131		11.00	

	HOGS					
	Receipts		Top Price Selects			
	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending
	Aug. 22	1917	Aug. 15	Aug. 22	1917	Aug. 15
Toronto (Union Stock Yards)	3,580	8,655	4,506	\$20.25	\$19.75	\$20.25
Montreal (Pt. St. Charles)	1,481	1,624	2,626	20.25	18.50	20.75
Montreal (East End)	967	786	1,601	20.25	18.50	20.75
Winnipeg	5,689	3,806	6,199	19.75	18.60	20.50
Calgary	1,498	1,680	2,680	19.65	18.75	19.50
Edmonton	462	471	1,182	18.25	17.50	18.75

	SHEEP					
	Receipts		Top Price Good Lambs			
	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending
	Aug. 22	1917	Aug. 15	Aug. 22	1917	Aug. 15
	3,625	3,552	1,756	\$21.50	\$15.50	\$23.25
	2,685	2,105	1,049	19.00	14.50	18.50
	1,453	754	776	19.00	14.50	18.50
	1,054	348	570	17.50	13.00	17.50
	804	165	2,150	16.00	12.00	15.00
	28	89	192		12.00	13.00

Market Comments.

Toronto.

There was very little change in the quotations for cattle at the local yards during the week. The majority of the five thousand head offered for sale consisted of lightweight butcher cattle, medium bulls and cows, for which classes of stock the demand was anything but brisk. As a result, prices tended to a further weakening. A number of loads of good quality steers weighing from eleven hundred pounds up, were on sale on Monday, and these proved to be the only active sellers in the week's trading. A good proportion of the best grass steers from Ontario continue to move to the Buffalo market where beef prices are ruling a shade higher than at Toronto, and in addition to the five hundred head that passed through Toronto on through-billing for the Buffalo trade, six hundred head, bought on the local yards, were shipped to the same destination. Two hundred of these latter cattle were good butcher stock, while the balance were feeders. Ontario cattlemen at present are finding it profitable to cater to the Buffalo trade, for in addition to the slightly higher values ruling at Buffalo, the existing two per cent. rate of exchange provides additional profit for our stockmen of about \$60 on a carload of \$3,000 value. A few loads of good steers were weighed up on Monday at satisfactory prices, and among these these was a load averaging twelve hundred and thirty pounds that realized \$15.10 per hundred. Three or four loads of steers of about twelve hundred pounds each sold at \$15, while other good sales included one load averaging eleven hundred and ninety pounds per head, at \$14.85. Of steers weighing from ten hundred to twelve hundred pounds, the top sales included twenty-three head of ten hundred and seventy-five pounds each at \$14.50; twenty-two head of eleven hundred pounds at \$14.15; twenty head of ten hundred and thirty pounds at \$14.40. Other sales of good quality stock within these weights were made at prices ranging from \$13 to \$14. Medium steers sold from \$12 to \$12.75. Of the light-weight butcher steers and heifers under ten hundred pounds on sale, twenty-five head averaging nine hundred and ten pounds sold at \$13.25. Those of good quality realized from \$11.50 to \$12.50, while most of the offerings in these weights showed only medium quality and sold from \$9 to \$11 per hundred. There was little change in the market for cows and bulls; a few odd sales of those of choice quality were made from \$10.25, \$10.50 and \$11 per hundred, but the majority of the good cows and bulls sold from \$9 to \$9.75 per hundred, those of medium quality from \$8 to \$8.75, and common quality from \$7 to \$8 per hundred. The demand for stockers and feeders remains very limited; the condition of Ontario pastures is such that little inducement is offered to farmers to take stock back to the country at the present time. Besides the fact that fall feed is in most cases very short, stockmen are holding back in the hope that prices may be lower later on. It is anticipated, however, that a good demand will shortly develop for cattle for winter feeding. Only a few loads of cattle were shipped to Ontario points during the week, and those were bought at unchanged quotations. The calf trade re-

TORONTO (Union Stock Yards)				MONTREAL (Pt. St. Charles)				
CLASSIFICATION	No.	Avg. Price	Price Range Bulk Sales	Top Price	No.	Avg. Price	Price Range Bulk Sales	Top Price
STEERS heavy finished	257	\$14.50	\$13.75-\$15.00	\$15.00				
STEERS good	428	14.00	13.25-14.50	14.50	56	\$12.50	\$12.00-\$13.00	\$3.00
STEERS 1,000-1,200 common	52	12.50	11.50-13.00	13.00				
STEERS good	729	12.70	11.75-13.00	13.25	70	11.75	10.00-12.50	12.50
STEERS 700-1,000 common	367	9.45	9.00-10.50	10.75	331	9.00	8.50-9.50	10.00
HEIFERS good	596	12.73	11.75-13.00	13.50	36	8.75	8.00-9.50	9.50
HEIFERS fair	342	10.41	9.50-10.75	10.75	283	7.50	7.00-8.00	8.00
HEIFERS common	98	9.18	8.00-9.50	9.50				
COWS good	558	9.75	9.00-10.00	11.00	31	9.50	9.00-10.50	10.50
COWS common	578	7.62	7.00-8.75	9.00	298	7.75	7.50-8.50	8.75
BULLS good	26	9.95	9.25-10.50	11.00	1,111	7.25	6.75-7.50	7.50
BULLS common	166	8.55	7.25-9.00	9.75	104	5.75	5.00-6.50	6.50
CANNERS & CUTTERS	191	6.25	5.75-6.50	6.75	8	12.00	11.00-12.50	12.50
OXEN	10				299	8.50	7.00-14.00	14.00
CALVES veal	569	14.93	13.00-16.50	17.50	831	7.00	7.00	7.00
CALVES grass	25	8.00	7.00-9.00	9.00				
STOCKERS good	99	10.00	9.00-10.25	10.25				
STOCKERS 450-500 fair	213	8.68	8.00-9.00	9.75				
FEEDERS good	261	10.75	10.50-11.00	11.00				
FEEDERS 800-1,000 fair	61	10.25	10.00-10.50	10.50				
HOGS selects	3,269	20.03	19.50-20.25	20.25	1,296	20.25	20.25	20.25
HOGS (fed and watered) heavies	11	19.85	19.50-20.25	20.25	96	20.25	20.25	20.25
lights	146	18.59	17.75-19.25	19.25	80	17.25	17.25	17.25
sows	150	17.67	16.75-18.75	18.75	9	16.00	15.00-17.00	17.00
stags	4	14.81	14.50-16.25	16.25				
LAMBS good	3,011	20.08	19.00-21.50	21.50	818	19.00	19.00	19.00
LAMBS common	157	17.73	17.00-19.00	19.00	1,566	18.35	18.00-18.50	18.50
SHEEP heavy	145	11.78	11.00-13.00	13.00	118	13.50	13.50	13.50
SHEEP light	211	14.00	13.00-15.00	15.00	183	12.40	12.00-12.50	12.50
SHEEP common	101	8.86	7.00-10.00	10.00				

mains strong and active. Choice veal sold up to \$17.50 per hundred during the week while most of the sales were made from \$14 to \$16.50. Lambs met with an active inquiry and although prices rule a little easier on Monday, on which day fifteen hundred were on sale, trade developed strength during the week, and by Wednesday, top lambs were moving from \$21 to \$21.50 per hundred, compared with a top of \$20 on Monday. On Thursday, however, the market again weakened, choice lambs declining 50 cents to \$1, selling at \$20 to \$20.50 per hundred. Choice light sheep sold up to \$15 per hundred. In spite of light receipts and advancing American quotations, hogs suffered a decline in price on the local yards during the week. While on Monday \$20.25 per hundred was paid for selects, fed and watered, on Wednesday the packing houses refused to pay above \$19.50 although a few decks were sold to local butchers at \$19.75 and \$20 per hundred. No serious break in prices is looked for. Of the disposition from the Yards for the week ending August 15, Canadian packing houses purchased 546 calves, 3,753 butcher cattle, 4,736 hogs and 1,480 sheep. Local butchers purchased 239 calves, 443 butcher cattle, 265 hogs and 418 sheep. Canadian shipments consisted of 8 calves, 36 milch cows, 88 stockers, 124 feeders and 43 sheep. Ship-

ments to United States' points consisted of 84 butcher cattle, 33 stockers and 153 feeders. The total receipts from January 1 to August 15, inclusive, were: 158,269 cattle, 42,612 calves, 227,236 hogs and 30,571 sheep; compared with 148,225 cattle, 34,019 calves, 301,531 hogs and 29,292 sheep, received during the corresponding period of 1917. Montreal. With receipts of about forty-two hundred cattle, forty-one hundred sheep, twenty-five hundred hogs, and seventeen hundred and fifty calves for the week, the majority of which were offered on Monday, the market opened slow and at prices for cattle from 50 cents to 75 cents below the closing levels of the previous week. Trading at the lower prices was quite steady and the cattle were all taken up during the week. Between the heavy increase in receipts so early in the season and the difficulty in procuring the proper help at short notice, the packing plants are having some difficulty in handling their purchases. This is only a temporary condition, however, and will be readily adjusted as the season advances. Three or four loads of the best cattle offered were sold on a dressed-meat basis and were figured equal to about \$12.50 per hundred liveweight for the steers, and \$9 to \$10.50 for the cows.

There were no choice animals of any grade offered during the week. One of the best loads of steers offered averaged eleven hundred and fifty pounds and sold for \$12.50 per hundred. The majority of the steers were light and unfinished, and sold around \$9 per hundred. The market was featured by the prevalence of light-weight bulls and canner cattle, for which classes prices ranged from \$6.75 to \$7.50 per hundred. A good inquiry exists for steers of weight and quality. Receipts of sheep and lambs continue heavy, and while there was no break in the prices of those weighed up, toward the end of the week, bids were made at lower prices. Lambs sold at \$19 per hundred for those of good quality, and from \$18 to \$18.50 for common stock. Sheep sold at \$13.50. The market for hogs remained steady throughout the week at \$20.50 per hundred, off car weights. Owing to strong competition and consequent high prices for hogs at country points, the drovers were asking for increased prices for their next week's offerings. Pt. St. Charles.—Of the disposition from the Yards for the week ending Aug. 15, Canadian packing houses and local butchers purchased 1,071 calves, 220 canners and cutters, 836 bulls, 1,079 butcher cattle, 2,626 hogs and 1,049 lambs. Canadian shipments consisted of 16 milch cows, and 24 butcher cattle.

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Shipments to United States points consisted of 196 calves.

The total receipts from January 1 to August 15, inclusive, were: 23,773 cattle, 50,510 calves, 41,307 hogs and 14,309 sheep; compared with 23,655 cattle, 43,303 calves, 53,472 hogs, and 12,747 sheep, received during the corresponding period of 1917.

EAST END.—Of the disposition from the Yards for the week ending August 15, Canadian packing houses and local butchers purchased 595 calves, 1,981 butcher cattle, 1,501 hogs and 776 sheep. Canadian shipments consisted of 36 milch cows. Shipments to United States' points consisted of 98 calves.

The total receipts from January 1 to August 15, inclusive, were: 22,010 cattle, 37,899 calves, 26,233 hogs and 12,041 sheep; compared with 25,679 cattle, 34,290 calves, 29,204 hogs, and 11,933 sheep, received during the corresponding period of 1917.

Buffalo.

Cattle.—Canadian steers made a record price on the Buffalo market last week, selling up to \$17.75, being, so far as is known here, the highest price ever obtained for market cattle out of the Dominion. Other loads of Canadians sold at \$16.50 to \$17.50 and anything in the shipping steer line from across the river sold readily at a quarter advance, as compared with the previous week. Supply of Canadian cattle was liberal, there being close around eighty-five cars, most of which ran to straight loads of steers, with some mixed cow and heifer stuff, which also sold 15 to 25 cents above the preceding week. Offerings on a medium and common kind of butchering stuff moved slowly, canners and cutters in some instances ruling shade lower than for the preceding week. Stocker and feeder trade generally showed a better feeling, good feeders especially selling higher, best here the past week reaching \$10.50 to \$10.85. Bull market ruled about steady, with a somewhat weaker close for the week on milk cows and springers. Offerings for the week totaled 6,525 head, as against 6,050 for the previous week and as compared with 6,000 head for the corresponding week a year ago. Quotations:

Shipping Steers—Natives—Choice to prime, \$17.75 to \$18; fair to good, \$17 to \$17.25; plain and medium, \$14 to \$16; coarse and common, \$12 to \$13.

Butchering Steers—Choice heavy, \$16.50 to \$17; fair to good, \$15.25 to \$16; best handy, \$14.75 to \$15.50; fair to good, \$12 to \$13.50; light and common, \$9 to \$10; yearlings, choice to prime, \$16 to \$16.50; fair to good, \$13 to \$15.

Cows and Heifers—Best heavy heifers, \$14 to \$15; fair to good, \$11.25 to \$12; good butchering heifers, \$11 to \$12; fair butchering heifers, \$9 to \$10; common, \$7 to \$8.50; very fancy fat cows, \$11.50 to \$13; best heavy fat cows, \$9.50 to \$10.50; good butchering cows, \$8.25 to \$9; medium to fair, \$7.50 to \$8; cutters, \$6.75 to \$7; canners, \$5 to \$6.50.

Bulls.—Best heavy, \$11 to \$12; good butchering, \$10 to \$10.50; sausage, \$8 to \$9.25; light bulls, \$7 to \$8; oxen, \$7 to \$12.

Stockers and Feeders—Best feeders, \$9.50 to \$10.50; common to fair, \$8 to \$9; best stockers, \$8.75 to \$9.25; fair to good, \$8.25 to \$8.75; common, \$7 to \$8.

Milchers and Springers—Good to best (small lots) \$100 to \$135; in carloads, \$90 to \$100; medium to fair (small lots), \$80 to \$85; in carloads, \$70 to \$75; common, \$50 to \$55.

Hogs.—Prices made a big gain the first half of last week. Monday, when values on good hogs ruled 25 to 40 cents over the previous week's close, the market opened with heavies selling at \$20.40 to \$20.50 and the more desirable grades moved at \$20.60 to \$20.65. The late trade was stronger, some handy grades being placed up to \$20.75 and some weighing better than 240 pounds brought \$20.60. Pigs generally \$20, roughs mostly \$17.25 and stags \$15 down. Tuesday prices showed another advance, heavies bringing from \$20.50 to \$20.75 and handier grades landed at \$20.75 and \$20.80, few \$20.85. Wednesday the bulk of the crop, which was on the mixed order, brought \$20.90 and Thursday's top was registered at \$21. Friday the trade was steady. Handy grades ranged from \$20.85 to \$21, and the better weights brought from \$20.75 to \$20.90. Pigs and lights \$20 to \$20.50, roughs, \$17.50 and \$18 and stags \$15 down. The past week's receipts totaled 14,213 head, as compared with 12,793 head for the week before and 8,000 head for the same week a year ago.

Sheep and Lambs—Market on lambs occupied a more favorable position the past week. Monday tops sold at \$18, Tuesday one bunch reached \$18.35, Wednesday, only a few holdovers were here and they sold at \$18.12½, Thursday's top was \$18.25, and Friday bulk moved at \$18.50. Inferior to good cull lambs ranged from \$10 to \$15. Best yearlings were quoted from \$14.50 to \$15 and choice wether sheep from \$13.50 to \$13.75. Most of the sheep receipts were ewes and the good ones brought from \$12.50 to \$13. The past week's receipts were 3,814 head, as compared with 3,645 head for the week previous and 3,750 head for the same week a year ago.

Calves—The first four days of last week showed top veals selling from \$18.50 to \$19, and Friday, under a red-hot demand, prices were jumped \$1.50 to \$2 per cwt. On the fifth day of the week choice veals were placed from \$20.50 to \$21. The latter price equaled the record, made at Buffalo last March. Cull grades the fore part of the week sold from \$17 down and Friday they brought up to \$18. Heavy fat calves were ranged from \$12 to \$15 and the rough ones from \$7 to \$10. Offerings for the past week aggregated 2,114 head, being against 3,370 head for the week before and 2,600 head for the same week a year ago.

Toronto Produce.

Live stock receipts at the Union Stock Yards, West Toronto, Monday, August 26, consisted of 201 cars, 3,856 cattle, 211 calves, 1,464 hogs, 1,712 sheep and lambs. Heavy steers strong; top \$15.70. Butcher steers and heifers steady; cows 15 to 25 cents higher; bulls, stockers and feeders steady; milkers and springer strong. Sheep and calves steady; lambs \$2 lower; choice \$18 to \$19. Hogs steady.

Breadstuffs.

Wheat.—Ontario, No. 2, winter, per car lot, \$2.22; (basis in store Montreal). Manitoba wheat, in store Ft. William—

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including 2½¢ tax.—No. 1 northern, \$2.23½; No. 2 northern, \$2.20½; No. 3 northern, \$2.17½; No. 4 wheat, \$2.10½.

Oats.—(According to freights outside) Ontario, No. 2 white, (new crop), 77c. to 79c.; No. 3 white, (new crop), 76c. Manitoba oats, No. 2 C. W., 92½¢; No. 3 C. W., 88½¢; extra No. 1 feed, 88½¢; No. 3, C. W., 87½¢, (in store, Fort William); No. 1 feed, 84½¢.

Barley.—New crop, \$1.03 to \$1.05. Peas.—According to freights outside, No. 2, nominal.

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

Rye.—No. 2, nominal. Flour.—Manitoba flour, war quality, \$10.95. Ontario flour, war quality, \$10.85, in bags, Montreal; \$10.85, in bags, Toronto.

Hay and Millfeed.

Hay.—Track, Toronto, No. 1, \$18 to \$19 per ton; mixed, per ton, \$16 to \$17 per ton.

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

Bran.—Per ton, \$35.
Shorts.—Per ton, \$40.

Hides and Skins.

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

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

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

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

Farm Produce.

Butter.—All classes of butter again remained fairly stationary in price, selling as follows on the wholesales: Creamery, fresh-made, pound squares, at 46c. to 47c. per lb.; creamery solids, at 45c. to 46c. per lb.; dairy, 40c. to 42c. per lb.

Oleomargarine.—32c. to 33c. per lb. Eggs.—Eggs also sold at unchanged prices, wholesale, selling as follows: No. 1's selling at 48c. to 49c. per doz.; and selects at 50c. to 52c. per doz.

Cheese.—Cheese sold at unchanged prices during the past week: Old and new

cheese selling at 25c. per lb. wholesale, and twins at 25½¢ per lb.

Poultry.—The following prices were quoted for live weight: Spring chickens, 35c. per lb.; roosters, 22c. per lb.; fowl, 4 lbs. and under, 25c. per lb.; over 4 lbs., 28c. per lb.; ducklings, per lb., 25c.; turkeys, per lb., 30c.; turkeys, old, per lb., 25c.

Honey.—Five, 10 and 60-lb. pails, per lb., 26c. to 27c. Comb, per dozen, \$3.75 to \$4.50.

Montreal.

Horses.—It is said that shortage of labor will this winter interfere with operations in the woods and should this be the case there will be less demand than usual for horses for lumbering operations. Up to the present, there is no enquiry. Heavy draft horses, weighing from 1,500 to 1,700 lbs., \$250 to \$300 each; light draft, weighing from 1,400 to 1,500 lbs., \$200 to \$250 each; light horses, \$125 to \$175; culls, \$50 to \$75 each; fine saddle and carriage horses, \$175 to \$250 each.

Dressed Hogs.—No change has taken place in the market for dressed hogs. There is a good demand for them and prices were steady at 29½¢, to 30c. per lb.

Potatoes.—Offerings were not large and demand was good, so that the market held firm. Sales of 80-lb. bags, ex-store, were taking place at \$1.65 to \$1.75. This was for local stock. The crop is said to be very good.

Maple Syrup. The market was steady and \$1.90 to \$2.00 per gallon for syrup in wood and \$2.10 to \$2.25 for gallon-tins. Sugar was 22c. to 25c.

Eggs.—All sorts of prices were being paid for eggs, but there was no question that the market was very firm throughout. Prices showed little change, being 51c. to 52c. per dozen for select new laid stock, and 47c. to 48c. for No. 1 and 45c. to 46c. per doz. for No. 2 stock.

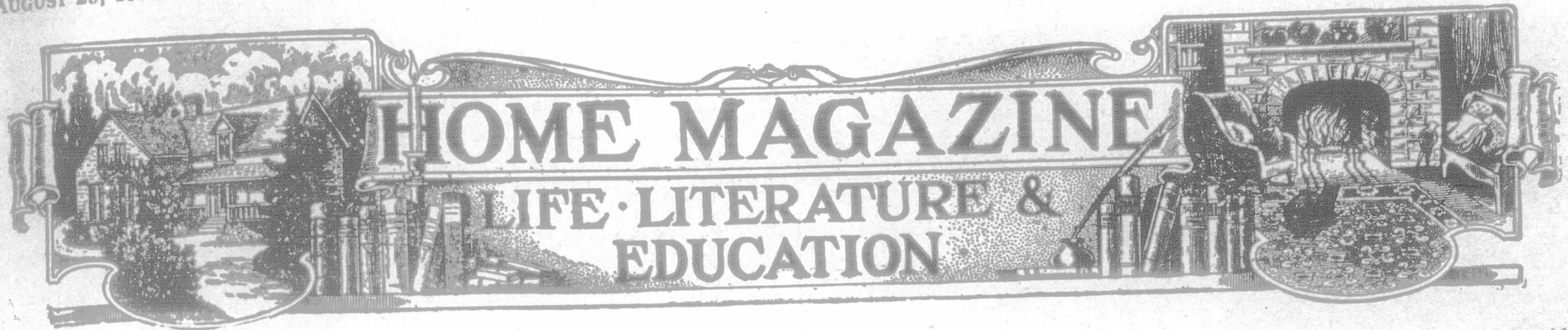
Butter.—The hot weather is now nearly at an end and there are prospects for an improvement in the quality of the make of the butter. Meantime, prices were steady at 43½¢ to 43¾¢ for finest creamery; 43c. to 43¼¢ for fine, and 36c. to 38½¢ for dairy.

Cheese.—No. 1 cheese, 28c.; No. 2, 22½¢; No. 3, 22c. per lb.

Grain.—The market for oats was firm. No. 2 Canadian Western was \$1.02 to \$1.03 per bushel, in car lots; No. No. 3 C. W. and extra No. 1 feed 99c. to \$1; No. 1 feed, 96c. to 97c.; No. 2 feed, 92c. to 93c.; Ontario No. 3 white, 89½¢ to 90c. per bushel, ex-store. No. 4 yellow

Continued on page 1414.

AUGUST 29, 1918



A World Known Poem.

We have been asked for the words, as originally written, of the now famous poem "In Flanders Fields," whose author was Lieut.-Colonel John McCrae, of Guelph, Ont., one of the many true poets who have given up their lives in the World War. The poem, as it first appeared, in *Punch*, is as follows:

"In Flanders' fields the poppies blow,
Between the crosses, row on row,
That mark our place; and in the sky
The larks, still bravely singing, fly
Scarce heard amidst the guns below.
We are the dead. Short days ago
We lived, felt dawn, saw sunset glow,
Loved and were loved, and now we lie
In Flanders' fields.

"Take up our quarrel with the foe!
To you from falling hands we throw
The torch. Be yours to hold it high!
If ye break faith with us who die
We shall not sleep, though poppies grow
In Flanders' fields."

This poem has been translated into twenty languages and has been set to music. Many replies to it have been written,—one of the best by R. W. Lillard for the *New York Evening Post*.

"Rest ye in peace, ye Flanders dead.
The fight that ye so bravely led
We've taken up. And we will keep
True faith with you who lie asleep
With each a cross to mark his bed,
And poppies blowing overhead,
Where once his own life-blood ran red.
So let your rest be sweet and deep
In Flanders' fields.

"Fear not that ye have died for naught.
The torch ye threw to us is caught,
Ten million hands will hold it high,
And Freedom's light shall never die.
We've learned the lesson that ye taught
In Flanders' fields."

Through the Eyes of a Canadian Woman in England.

July 25th.
THE great big world seems very cheerful to-day. We are buoyed up by the splendid news of General Foch's victorious advance, and also because there have been plentiful rains, and all nature is singing a chorus of joy after the long drought. A delightfully cool breeze is blowing, and in comparison to our anxious past weeks, we are, as the boys say, feeling "in the Pink" generally. We have forgotten all about raisinless cakes and sugarless puddings, as well as worn frocks and last year's blouses, in our rejoicing, and fondly hope that there may at least be an ending in sight to all our troubles. It does not take as much to make us happy now as it did when all good things seemed to come our way whether we deserved them or not; when we were as care-free as children. Oh, those good old days before the war!
To-day my girls have brought me bunches of sweet peas and marguerites and offerings of lovely wild flowers, including heather in full purple bloom. "Fire-weed," as it is commonly called in Canada, grows to great heights here, and when combined with branches of tender oak and wild honey-suckle it is not to be scorned. The bouquet which I love best is on my desk and is of crimson rambler roses and "starry jasmine," a combination of perfumes which is almost perfect. This year the privet hedges have been permitted to follow the dictates of their own sweet will and are full of masses of white bloom resembling miniature lilacs, owing to the absence of gardeners and the fact that the clipping of privet hedges is not absolutely necessary to the nation.

One does well to avoid their locality in evening walks as the privet blossom emits a most unholy and skunk-like odor, and the old saying of nursery days, "Pretty is as pretty does," comes to our minds.

I have been snatching occasional moments to dip into two very interesting though widely different books of late. One is Mrs. Webster's "Thrift for the Housewife." It is not a book that would have found a particularly ready sale among English ladies a few years ago, but is in high favor at the present time. Mrs. Webster suggests that half the women who looked upon skill in house-keeping as the least of feminine virtues should realize that in leaving the duties of the kitchen entirely to paid helpers they were parting with a really wonderful weapon—something that, in the opinion of men, was "worth the notice of

all women." But the war has changed all that. There is no doubt that good cooking will soon be a shorter cut to popularity and power than a pretty face or a fashionably-cut frock. To be sure there will always be plenty of women who would prefer to feel that their hold on their husbands was based on something less prosaic than the ability to cook a perfect omelette, but we must not forget that it was this accomplishment that helped Sarah, Duchess of Marlborough, in spite of her many imperfections of temper, "to rivet the chains that her husband wore to the end of his life." One realizes very fully over here what wonderful cooks Canadian women are, and it certainly does not detract in any way from their charms to be able to turn their hands to this interesting occupation. It was meant that woman should "look well to the ways of her household," and that time is coming for the Englishwoman

of high class as well as her more humble sister. The taste she has had of cooking and other domestic work in V. A. D. hospitals has fascinated her, and one feels that she will not willingly relinquish it when the hospitals no longer require her services.

The other book is "Memories of the Fatherland," by Anne Topham, who a few years ago delighted us with her "Memories of the Kaiser's Court." This one is even more fascinating than the other and is most cleverly written. Her descriptions of German character which she had ample opportunities of studying in the seven years in which she held the position of English governess to the Kaiser's only daughter, help us to understand German methods of warfare, and the determination of the people, in spite of great hardships, to fight to the bitter end for the "Fatherland" which they adore. The five illustrations of her pupil and her numerous brothers add to the interest of the book, and one can hardly imagine the childish form of Prince Adelbert of Prussia, fondling his yards of German dog, as being now a commander in a navy who commit such cruel murders and other atrocities on the high seas.

Do you remember that some years ago a governor-general who was visiting one of our largest Canadian provinces, remarked publicly that Canadian children were "the most badly behaved he had known"? I was reminded of this yesterday. While well-brought-up English boys are like little old men in dignity and behavior in comparison to our virile lads, there are many others who are worse than any Canadian boys I have known. Aware that this is a manless house they throw stones at our windows in passing from school and do many other cowardly tricks. The climax was reached yesterday when one entered the kitchen uninvited and "pressed the button" in our fire extinguisher with the usual surprising result. I felt that the shock he received was sufficient punishment, and I was unsympathetic enough to laugh. In discussing the matter later with the policeman who patrols this street I was assured by him that English boys were not at any time less mischievous than others, but he said that at the present great leniency was used in dealing with them. He said he usually gave them a good fright and let them go for "compassionate" reasons, and remarked in explanation of this, "You know all the boys' fathers are away in France, and the poor mothers have all the care. They are getting beyond everything for need of a father's training and discipline," and sadly shaking his head he added, "I am afraid when he does come home—if he does—that it will be too late for their redemption." I saw that the policeman had had troubles of his own. He went off looking rather depressed, after promising to keep a special watch over us. I have now come to the conclusion that one cannot judge anyone correctly in these abnormal times.



Decoration by Prince Arthur of Connaught of D. S. O. to Flight Lieutenant Walter Ernest Flett, R. N. A. S., of Toronto.

MANY of the aeroplane workers in our hostel are married girls. Every now and then there is great excitement when a husband arrives from France. To-day I met one of the girls hurrying through the hall to the door to meet her husband whom she had seen approaching from her upstairs window. Her eyes were shining and the words "my husband!" were uttered as she met me. She had not seen him for eighteen months. There he stood in full marching order, and looking very happy to be here. We all rejoice together on these occasions and try to conceal the envy that is in our hearts. Leave is also granted to the wife when the husband appears. The fourteen days will pass only too quickly and it is harder than ever to see him go back; but a man in the army is no longer

captain of his own soul but belongs to his Country. All the pretty clothes that have been saved up for this happy time will be brought out and enjoyed. Our men do love the contrast of pretty things when they emerge from the mud and dust of the battlefield. After he goes the wife returns patriotically to her work, and starts out all over again looking forward to the next time.

My Nova Scotian friend has always vowed that by the time peace comes again she will be returning to Canada in an aeroplane. She avers that all available ships will be pressed into service for the transportation of our soldiers back home, and that the poor wives will have to shift for themselves. Recent events seem to point to a fulfillment of her prophecy, for the papers tell us that Handy Page has plans made for the voyage of some of his machines across the Atlantic. When I recall the long boat journey so many days without sight of land, I shudder at the mere thought of such a proposal, though so many apparently unsurmountable difficulties have been overcome since war began that one must not be surprised at any wonderful feat. If Jules Verne were living to-day I am sure he would experience great satisfaction at the realization of so many of his dreams.

The courage of our airmen is one of the most wonderful developments of this crisis through which we are passing. I have just had a heart-broken letter from a Canadian woman in response to a note of sympathy I had sent her on the death of her only son during an air fight somewhere in France. His father, also a

think I must have found favor in the eyes of our grocer—or rather groceress—for when I went this morning to do my shopping she whispered to me, "I have some raisins for you." I first thought she was joking. She said that she just had a consignment of twenty pounds and that she had laid aside a parcel for me. I had not seen raisins for almost two years and I forgot everything else, and hurried home to exhibit my prize, calling to my friend as I opened the door, "What do you suppose I got this morning?" She made several guesses such as chocolates, fresh fruit, strawberry jam, and various other things that looked very good to us nowadays. I enjoyed the expression of incredulity on her face when I triumphantly announced "raisins!" Now we await a very special occasion to use the raisins.

A Canadian lady was telling me of a Red Cross fête in connection with a well-known London hospital which she attended this week. It was held outside and rain poured down at intervals, but that made no difference. She took a small box of fudge as an offering, and it was so greatly in demand that it was raffled most successfully. Almost everyone over here seems to have heard of Canadian fudge and some have tasted it (and pronounce it "absolutely ripping!") Thousands of parcels of it must have crossed the Atlantic since war began. I was most interested in hearing of the numbers of puppies and kittens offered for sale. Poor puppies and kittens! Even their most ardent lovers were afraid to buy anything which demands feeding. Newspapers have many advertisements offering well-bred pets to anyone who

Hope's Quiet Hour.

Keeping in Love.

And now abideth faith, hope, charity, these three; but the greatest of these is charity.—I Cor. 13 : 13.

"And now abideth. . . love". The kind of love which only rests in a heart for a short time, and then flies away to seek another home, is very poor and valueless. R. L. Stevenson said: "Falling in love and winning love are often difficult tasks, but to keep in love is also a business of some importance, to which both man and wife must bring both kindness and good-will." And yet novelists are apt to write as if the only interesting part of love-making were the beginning. A young man gets to "the neck-tie age," when he dresses carefully to please some particular woman; or a woman uses all her arts to win the heart of the man she loves. That is human nature, and neither war nor business can kill human instincts. But why should the exciting adventure end as soon as the honeymoon is over and ordinary life begins? Or why should the old maids and bachelors miss the great adventure of loving?

St. Paul seems to think "keeping in love" is the one great business of everybody. Even the philanthropist, who gives all his goods to feed the poor, and the martyr, who dies for a great cause, are failures if they have not love. That is St. Paul's statement.—I Cor. 13 : 3. He

A modern writer declares that when he sees people striving after power and influence, he longs to tell them that among the thousands he has met there has only been one before whom his whole soul bent in reverence and adoring love, "and she was the quiet wife of an East End parson, in a dingy London square, who would have laughed at the thought of influencing anybody."

If we are going to "keep" in love we must make loving the great business of everyday life from Sunday morning to Saturday night. We must use our company manners in the kitchen as well as in the parlor. Sometimes a person who is charming with strangers uses his own family as a safety-valve, letting loose on the unfortunate heads of his relations the stored up irritability (they naturally call it "crossness") which he has hidden away while visitors were near. I remember once trying to make my knocking at the door audible when a family row was going on inside a house. At last they woke to the knowledge that a stranger could hear, and instantly the storm changed to calm and the furious woman whose words to her own relations were anything but choice, was all smiles and pleasantness.

Love is, after all, the great adventure of life, the thing we are in this world to give. Are we showing the outward signs of a love that never fails? If our nearest relations—those who know best what we really are—were to tell the exact truth about us, what would the record be like? Would they say that we never got cross or snappish, even when everything was in a muddle, when the clean clothes fell in the mud, when the oven refused to bake, and when everybody was aggravating?

It is useless to try to win others to Christ if we are all the time making them think that Christians are conceited and disagreeable people. We are called to "adorn" the doctrines we preach, "in all things." Our Lord is watching us all the time. He is delighted when we win a real victory over selfishness—especially if it is a victory no one else notices—and He is disappointed when we fail. But His love never fails.

In these days of anxiety it is everyone's duty to be as happy as possible. Not very long ago a man said to me: "It is a crime to be unhappy in these days." His own bright face certainly did not draw attention to the fact that several of his sons were at the front. To really love, and keep on loving—returning good for evil and kindness for insult—is not only a great but also a hard thing. We need to go to school to the Great Lover, and say humbly: "Lord, teach me to love as Thou lovest." We want to live with Him constantly so that we may catch His spirit, and then people will see something Christlike in our daily lives. His Name is as ointment poured forth. As some aromatic earth in an Eastern fable exclaimed: "I was common clay till roses were planted in me."

"As some rare perfume in a vase of clay
Pervades it with a fragrance not its own,
So, when Christ dwelleth in a mortal soul,
All heaven's own sweetness seems
around it thrown."

DORA FARNCOMB.

Gifts for the Needy.

I arrived in Toronto yesterday, and found my desk piled with gifts of reading matter for the "shut-in" and with donations for the needy. I have not yet had time to open all the parcels but acknowledge with thanks the following donations of money—fifty cents from a rural friend, two dollars from Mrs. J. W., and five dollars from Mrs. B.

The Q. H. P. is very full and I must go to work and try to prevent stagnation. Certainly the charity of Advocate readers never faileth.

DORA FARNCOMB,
6 West Ave., Toronto.

"Millions of the people of Germany are firmly convinced, even if they do not dare to speak of it openly, that the defeat of the present autocratic Government would be a blessing for them and their posterity. They have at last seen through the motives of their rulers, whose purposes are selfish and aim at the suppression of the ideas of liberty and the forcing of their hated Government upon the whole world."—New York Staats-Zeitung.



With Our Troops in Mesopotamia.

Scene at the entrance of the Bagdad sporting club, showing soldiers walking across the desert to the races, with Bagdad girls awaiting the gates to open.

soldier, was near at hand, if not an eye-witness to the lad's tragic feat—and was there to tenderly care for all that was left of his darling. He is now plunging harder than ever in his work trying to forget. The broken-hearted mother wrote "He was our all, and so young to die, but he died fighting, as he would wish to. I am back at my work again in the hospital doing what I can for the wounded boys." It was all so pathetic, and so brave, too. Who will say that Canadian women are less strong than their English sisters? Have you heard of the brilliant piece of work that was performed by the air service on July 17th in a certain part of France, where a French battalion found itself cut off from the main body of the French forces? They determined to hold out, but where were the necessary supplies to come from? After some discussion it was decided to try to get what they required by aeroplanes. Not long after bread, biscuits and over two hundred and fifty boxes of preserved beef were dropped from the heavens like Manna. Next day the exploit was repeated, and as the battalion signalled that they were running short of ammunition, quantities of cartridges were dropped for them. By these means the battalion was able to put up a desperate resistance while waiting to be relieved by counter-attacks. These succeeded by the next evening, when the battalion was set free from the perilous position in which it had held its ground.

CAN you imagine anyone being terribly excited over the purchase of a pound of raisins? I was in that frame of mind this morning. I

will provide them a good home. The flower booths were a gorgeous sight, and there was the usual "fish-pond" where my friend drew a box of sardines. Then there was the table laden with articles which people brought to get rid of, and which others ardently longed for. But this one is always the centre of a big push, so she failed to get near it. There are always Red Cross sales, and strange to say the crowds are as big as ever. Is it because there are so few social functions nowadays, or are people becoming more generous all the time? There is a flag-day every Saturday in every English town and village. We always expect to be tagged if we appear out of doors on that day. The ladies who stand on the streets and ask passers-by to take one deserve a medal, but if they have grown weary one would never detect it.

SIBYL.

When the Game is Done.

GRANTLAND RICE, IN COLLIER'S.

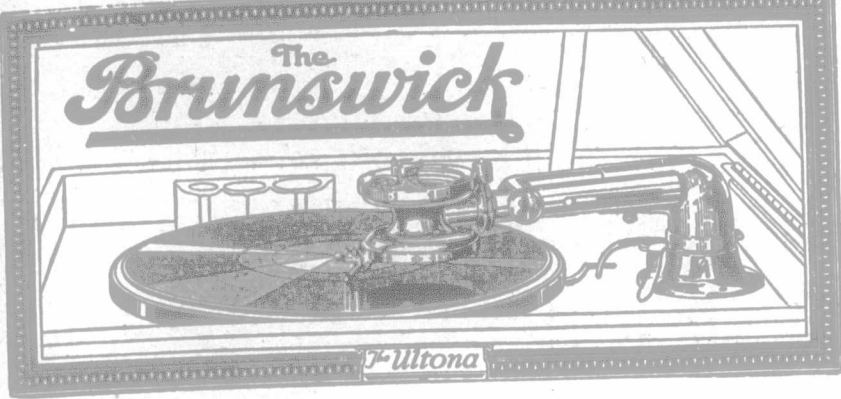
Who shall say when the Game is done
What man lost and what man won?

Who shall say that the victim fought
With smaller courage for his part?
Who shall say that the victor wrought
With braver soul and finer heart?

Who shall say that the gleaming stars,
Radiant on the winner's scroll,
Will shine more brightly than the scars
Of him who fought to a hopeless goal?

Who shall say when the Game is done
What man lost and what man won?

Plays All Records



At The Toronto Exhibition This Year

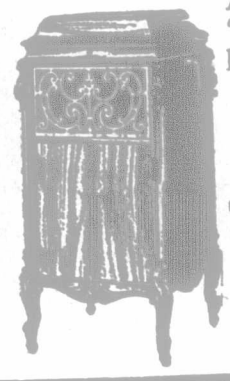
Be sure to hear the all-record Brunswick Phonograph play any make of record perfectly with the wonderful new Ultona.

This wonderful new phonograph has finally discovered the way to bring forth "Tones Hitherto Lost." The all-wood tone chamber produces a truer, sweeter tone. The Ultona plays correctly all makes of records by a simple turn.

You owe it to yourself to hear this all-in-one phonograph; you naturally want the best toned phonograph in your home.

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At the Exhibition this year be sure to hear "The Wonderful Tone of the Brunswick," and hear the Ultona play ALL records.



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The Ingle Nook

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Some New Ways For Cooking Vegetables.

Corn Custard.—One cup freshly grated corn, 4 eggs, slightly beaten, 1 1/4 cups milk, salt, pepper and onion juice to season. Mix well and turn into a buttered mould. Bake in a pan of hot water.—A very nutritious dish.

Cooked Cucumbers.—Peel large cucumbers, boil until soft in salted water, drain and mash, seasoning with butter, pepper and salt, and, if you like, a little onion juice or grated onion. Reheat and pile on hot buttered toast. Serve at once. Cucumbers may also be fried, or stuffed and roasted. Make the stuffing as for chicken and put a bit of bacon on top of each cucumber, first replacing the slice that was taken off to remove the inside. Another method is to cut the peeled cucumbers in cubes and bake in a baking dish, seasoned with grated onion and lemon juice. Cover each layer with crumbs and dot with butter, sprinkling also with a little celery salt if you have it. Keep on until the dish is full having crumbs and butter on top. Bake, covered for about an hour, then remove the cover and brown.

Tomato Shortcake.—Make a good biscuit dough and pat out about an inch thick. Place on a buttered pan. Cover with a thick layer of ripe, sliced tomatoes, them some butter and sugar. Bake and serve with rich cream. If you like you can put a layer of sliced onions on top of the butter and sugar, sprinkle with

salt and pepper, then with a layer of sliced green peppers and bake, serving without the cream.

Baked Squash.—Take any nice white summer squash and cut a hole big enough to remove the seeds. Fill with a stuffing made of 1 pint stale bread crumbs, an onion, chopped fine, 1 scant teaspoon mustard, 2 tablespoons butter cut in small pieces, 1/2 teaspoon powdered sage, salt and pepper to taste, and 2 beaten eggs. Replace the top, put in a baking pan and bake in the oven for 2 hours, using pork drippings to baste. Serve with a few strips of fried bacon.

The Scrap Bag.

Oatmeal Cookies.
Oatmeal bread, cookies, etc., are very much nicer if the oatmeal is run through the food chopper before being used.

A Pinching Shoe.
While wearing the shoe put a pad wrung out of very hot water over the spot that pinches. The leather will expand, making the shoe more comfortable.

Cleaning Kettles.
Kettles and frying pans may be made clean by simmering them in an old sugar kettle of water in which washing soda has been dissolved to make a strong solution. Simmer for an hour or two and the discolorations will disappear, then rinse in clear water.

A Depilatory.
Girls are often annoyed by a growth of hair on the arms which spoils the pleasure of wearing short sleeves. A well-known physician once gave the following prescription to a family of sisters. It has been in use ever since with excellent

results: One part quicklime, two parts carbonate of soda, vaseline eight parts. This forms a paste which should be spread on thickly. As soon as it begins to smart or burn it should be washed off. The hairs will usually come away with the third or fourth application. The preparation is harmless.—Sel.

Care of Refrigerators.
If you have a good refrigerator, it will pay to take means to preserve it. After thoroughly scrubbing and scalding with boiling water, put a lighted lamp inside and partially close the doors. The heat will thoroughly dry out all the seams, prevent rusting, and destroy any odors which may remain. This method is also good when cleaning dry closets, like those under stairways, where there is little ventilation and a musty odor.—Sel.

Honey for Sugar.
Honey may be used for sugar in any recipe, but for every cup of honey one quarter cup less of liquid must be omitted. It may also be substituted in recipes calling for molasses, and since it has an acid reaction, soda must also be used, but not so much as with molasses, probably about half as much. Cake and cookies made with honey will keep fresh and soft much longer than those made with sugar. The flavorings that go best with honey are lemon, orange, cinnamon, ginger and bitter almond. Honey may be used for preserving, the same weight as of sugar being used. Add just a few minutes before the fruit is taken from the stove.

"That new recruit must have been a bookkeeper."
"Why so?"
"I just noticed him trying to put his bayonet behind his ear."

The Windrow

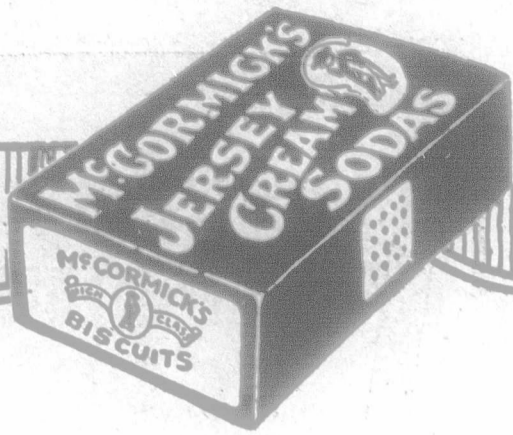
The first railway bridge of reinforced concrete built in Canada has been constructed for the C. P. R. over the old Belt-Line Railway near Toronto.

France is to raise a statue in Paris to the memory of the Californian poet, Alan Seeger, who was killed at Belloy-en-Santerre in the early days of the war while serving with the Foreign Legion.

Antonio Mangoo, a Sardinian with Italy's army, has been decorated with the Gold Medal of Valor, which is seldom given to anyone alive, with three silver Medals of Valor, and has been made Knight of the Crown of Italy on the battlefield. Also he has been decorated by Serbia, Belgium, England and France. Previously he was decorated for valor in the Tripoli war and Messina earthquake. His body bears scars of over one hundred wounds.

Of the present state of Roumania an eminent Roumanian now living in Switzerland says, in *Journal de Geneve*: "Roumania is reduced to a state of real slavery. German agents have the right to enter private houses at any hour and to requisition everything they consider useful. They have taken everything down to objects indispensable to the humblest household. The distress is becoming daily more and more grievous. To the specter of famine epidemics are now added and Roumania has only one hope—the victory of those she continues to consider her Allies. There used to be pro-Germans in Roumania—there are none to-day."

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The Harvesters' March.

BY C. M. HARGER.

With whirl and clatter on southland plain
March forth the reapers of golden grain.

Yellow the fields where the sun is high,
Plump the kernels where heavy heads
Nod and sway as the south winds sigh:
Wheat is king, and its proud reign
spreads

With the sun's advance toward colder
climes;

But here the riches have come to hand,
Earth smiles and beckons and yields
betimes

Its large reward to all the land.

A week, a month—the stubble is bare,
Robbed of the gold that nature mints
With soft-hued skies and balmy air;
On saffron acres the sunlight glints
Far to the north, and onward go
The noisy toilers who, tireless, tread
Wide prairie lands, there to and fro
Gathering sheaves for a nation's bread.

Though on and on stretch fields still green,
Yet with the sun the gold creeps in;
So come the wielders of sickles keen,
Eager the year's great prize to win—
Platoon and guard, brigade and corps,
Brave Labor's troops pursue their way;
Ne'er did an armored host of yore
Besiege such store of wealth as they.

Care and want and debt defied,
Homes adorned, fair gifts to please,
Hopes and dreams all satisfied,
Food and clothes and restful ease—
These and more the harvests bring,
These the shining leagues bestow:
Glad the song the reapers sing
As forward on their course they go!

The summer is ending on northland hill,
The march is done and the fields are still.

The Dangers From Teeth and Mouth.

BY HERMAN M. BIGGS, M.D., L.L.D.


Commissioner of Health, State of New
York, in McCall's Magazine.

It is only within recent years that we have come to realize the vast influence upon health which the condition of the mouth and of the teeth have. Formerly the care of the teeth was urged to preserve the teeth from decay and for esthetic reasons; artistic dentistry was much practised. We did not know then that many serious infectious diseases like rheumatic fever and septicaemia, or blood-poisoning, and many organic diseases like those of the heart and kidneys were caused by neglect of the teeth and the consequent disease which developed in the gums.

Teeth a Source of Poison.

It would be difficult in view of our present knowledge to overestimate the importance of this subject. If the mouth and teeth are not kept clean, and points of decay in the teeth are not early treated, the germs which are always present in almost incredible numbers in an unclean mouth and on the surface of the teeth either become still more numerous and extend down in the spaces between the teeth and the gums, producing pus pockets and separating the gums from the teeth (the condition known as "pyorrhea"), or the decay extends in one of more teeth until the root canal of the tooth becomes infected by the germs and the tooth dies. When the gum becomes inflamed and painful, such a tooth is spoken of as an ulcerated tooth; at the apex of the root of such a tooth a small pocket of pus is formed. There may, however, be no pain or soreness around this kind of tooth, or these symptoms may be present only at certain times. In the past, dentists frequently filled the cavities in such a dead tooth, thus closing up the infected root canal and leaving the pus pocket at the apex, or they fitted bridges or caps over the roots. In either case there follows more or less constant absorption from these pus pockets around the teeth or at their roots; from this absorption, consequent severe or fatal poisoning may result.

Almost all those forms of disease which are commonly called rheumatism—rheumatic fever, acute articular rheumatism, deforming rheumatism (rheumatoid arthritis), chronic rheumatism—many cases of neuritis, sciatica, and other similar conditions, are now known to be due to those infections which most commonly arise from diseased tonsils


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Wheat, Michigan Amber—Red grain, straw stiff, bald head, hardy and heavy yielder—an old favorite.
Wheat, Red Rock—Red grain, stiff straw, bearded head, very heavy yielder and very hardy—a great favorite in Michigan.
Wheat, Red Wave—Red grain, straw stiff, bald head, hardy and heavy yielder—a grand variety.
Fall Rye, Rosen—Much heavier yielder than old sort and better in every way. Introduced by Michigan Agricultural College.

Price of all above, 30c lb., 5 lbs. \$1.25, postpaid. By express or freight at purchaser's expense, peck \$1.00, 1/2 bushel \$1.85, bushel \$3.50, 5 bushels \$16.75, 10 bushels \$32.50.
Timothy—No. 1, G.S., \$6.50; No. 2, G.S., \$5.75; No. 3, G.S., \$5.25 bushel; by freight at purchaser's expense.
Bags extra—Jute, 2 bushels, 30 cents each; Cotton, 2 1/2 bushels, 50 cents each.
Where order amounts to \$50 we will pay freight to any Ontario point.
We have good stock Abundance, and Dawson's, and expect Common Rye. Other varieties are offered subject to United States allowing their export.
Write for our Wheat Circular with prices of Wheat, Timothy, Hay, Vetch, Poultry Food, Etc.—FREE.

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Studies, Gymnasium
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Rev. F. L. Farwell, B.A.
Principal.

AUGUST 29, 1918

UNDED 1866

March.

uthalnd plain golden grain.

sun is high, heavy heads, winds sigh; proud reign

oward colder

come to hand, s and yields

land.

bble is bare, nature mints, balmy air; light glints

nd go less, tread and fro

ation's bread.

lds still green, creeps in; es keen, ze to win— and corps, ue their way; yore th as they.

d, o please, d,

ul ease— bring, bestow;

ng they go!

orthland hill; elds are still.

n Teeth

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D., L.L.D., ate of New agazine.

ears that we ast influence dition of the e. Formerly to preserve esthetic rea- much pract- that many ke rheumatic od-poisoning, like those of e caused by e consequent e gums.

oison.

of our present e importance th and teeth nts of decay e treated, the resent in al- an unclean of the teeth umerous and between the oducing pus gums from wn as "pyor- ls in one of e canal of the e germs and gum becomes a tooth is tooth; at the tooth a small

There may, eness around mptoms may mes. In the d the cavities closing up eaving the e they fitted e roots. In more or less these pus or at their, consequent result.

disease which atism—rheu- (rheumatoid ism—many and other known to be hich most eaded tonsils

or diseased teeth and gums. To relieve the disease in such cases the removal of the focus of poisoning in such teeth or tonsils is first necessary—i. e., it is necessary to remove the tonsils, or to remove the caps or bridges from the teeth and to treat or remove these and other diseased teeth or roots. When the roots are badly diseased the removal of the teeth is the only safe course to pursue. It cannot be too strongly emphasized that such teeth often produce no visible symptoms and no discomfort. X-ray plates of dead teeth are frequently necessary to show what the condition of the roots is.

It is now the belief of many physicians that not only the rheumatic conditions referred to are thus caused, but chronic organic disease of the heart, blood vessels and kidneys, severe anemias and other serious conditions are thus produced.

Methods of Prevention.

Constant, careful cleansing of the teeth is absolutely essential to prevent these dangers. Children must be taught to brush their teeth often and thoroughly. Regular periodic and skilful attention of a competent dentist is also necessary. If you have bridges or caps on your teeth which have been on for a long time, have them removed and the roots and teeth examined; and if you have any dead teeth, have X-ray plates made of them. This may save you a long illness or perhaps your life.

In the presence of sickness, we have been most careful to see that our house drains and sewer pipes and garbage pails were cleaned and disinfected, but have quite ignored the far more dangerous fermentation and decomposition going on in our own bodies.

Warmth, moisture and organic matter supply the conditions most favorable to the growth of germs and to the production of fermentation and putrefaction. These are exactly the conditions found in the human mouth and in the digestive tract.

Under perfectly normal and cleanly conditions these fermentative processes go on without harm. Under unclean conditions we know that they cause many diseases and sometimes death.

Training Little Children.

[Suggestions by mothers who have been kindergartners. Issued by the U. S. Bureau of Education, Washington, D. C., and the National Kindergarten Association, 8 West Fortieth St., New York. The following article deals with kindergartens in the rural schools of Canada, nor can there be until there are Consolidated Schools. But every good teacher uses kindergarten methods, more or less, with the little children.]

BY MRS. ETHEL G. YOUNG.

People often remark that my children do not seem to annoy me. Of course they do at times. I find, however, that it is the way I feel and not the child's naughtiness which is the cause. Do you ever stop to think that to-day you scold your child for something which yesterday passed unnoticed? It was a wise person who said, always count ten before beginning to scold. That gives you a chance to think who is in the wrong and how much he is in the wrong.

I have just finished reading an article by Thomas L. Masson, the subject of which was, "Can Parents and Children Get Together?" This question was answered in the few words: "Yes, through love and patience." The article showed that parents as well as children need bringing up; that the child is not only what he makes himself, but what he makes himself plus what the parents make themselves. Therefore parents need to watch themselves in order to understand their children better.

We say, "Come let us live with our children." Children, without knowing it, say: "Come, let us live with our parents." Where is the little girl who does not want to make cookies like mother, who does not enjoy having an apron and cap to put on when she dusts? Where is the boy who is not proud to have a box of tools like father's? Bob said to me the other day: "Mother, when can I have collars and neckties like daddy's?" In all things our children copy us. What a responsibility for us!

It is a great thing to have kindergartens in the public schools so that we can share our responsibility with the teachers. When we send our children

to kindergarten we are placing them for a few hours each day in the care of someone who has been trained through years of hard study to give to them mentally, morally and physically just what they need. Perhaps all mothers do not know how to live with their children. This is a sad condition, but it is true one in many families. It is a great thing, then, that their children can go to kindergarten and come in touch with someone who knows how to live with them. A well-trained sympathetic teacher will do more for a child than an unsympathetic mother. Teachers also have a perspective of a child, while mothers have only the close view. As soon as mothers realize that they can learn from many sources there will be better boys and girls in the world. The teacher is one of these sources.

Send your children to kindergarten. They will come home and tell you what they did. Some day the teacher will call on you and invite you to go and see the children in the kindergarten. Accept the invitation and I am sure after spending a morning there you will understand what a valuable gift Froebel gave us when he planned kindergartens. The word kindergarten means child-garden, a place where children grow.

While I was teaching, mothers would come and ask how John or Lucy behaved. When I said splendidly they were surprised. They could not understand it, for their children were so naughty at home. I found that the fault was often with the mother. She was not sympathetic with or interested enough in her boy or girl. In kindergarten the child was allowed more freedom to express himself; the teacher thus learned in what he was interested and his interests were carefully observed and fostered.

Another experience I had while teaching was with a child who did not want to come to kindergarten. For three days I used all my persuasive powers; he would come as far as the door and no farther. The fourth day I persuaded him to come into the room, but he would not sit down. The next day he took his chair, and after that, little by little, he became a part of the kindergarten. In the end he was one of my most helpful pupils. When I went to call on his parents I found that he lived over a saloon and that both his father and mother were heavy drinkers. He had been brought up with whippings, and that was the reason for his extreme distrust when he first came to the kindergarten.

Many persons have said to me, all that children do in kindergartens is to play. I always answer by asking if they have ever been in a kindergarten and almost always the answer is, no. Then I tell them to go and visit one and that after that I will talk to them.

Of course children play in kindergarten. What ought children from four to six years of age do? The play, however, is so carefully selected and guided that throughout it all the children learn many things. They learn from pictures, games, blocks, etc. My Bobby, though only four, knows the simplest forms and shapes. Direction is also taught in the kindergarten. Through plays, pictures and games the children learn about the various trades and their benefit to us. These are only a few of the things they learn, and I wish I had time and space to tell all. But perhaps if I had the time I could not do so, each day bringing forth something new.

The trouble with us as parents is that we do not play enough. Some mothers and fathers say to me that it is undignified. I answer "Never, if carried on in the real child-way. Nothing is undignified that will help our boys and girls to be better men and women."

In closing, let me add that we, as mothers, though we think we are doing everything possible for our children can always find room for improvement and the kindergartens will help us many, many times. The good work we start, the kindergartners will carry on. Let us never be like the mother who said her boy was not interested in anything. For the boy's teacher, when she called, noticed that he had a box of which he seemed to take great care and it was not long before she learned that it was a collection of caterpillars. Yet the mother said that the boy was interested in nothing. The teacher at once showed the little fellow that she, too, was interested in his caterpillars. She learned from the boy a great many things about caterpillars that she did not know,



The Universal

“T”

This story is told of a Missionary instructing a class of Oriental maidens in the English alphabet :

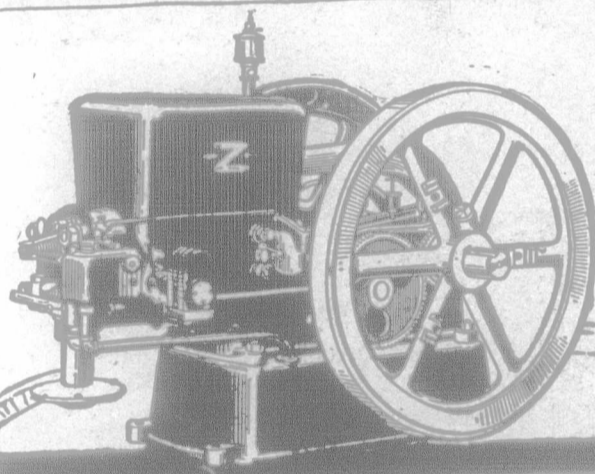
What comes after “S” ? she inquired. A bright little maiden piped up “LIPTON’S.” Wherever the English language is spoken “Lipton’s” is synonymous with “T.”

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

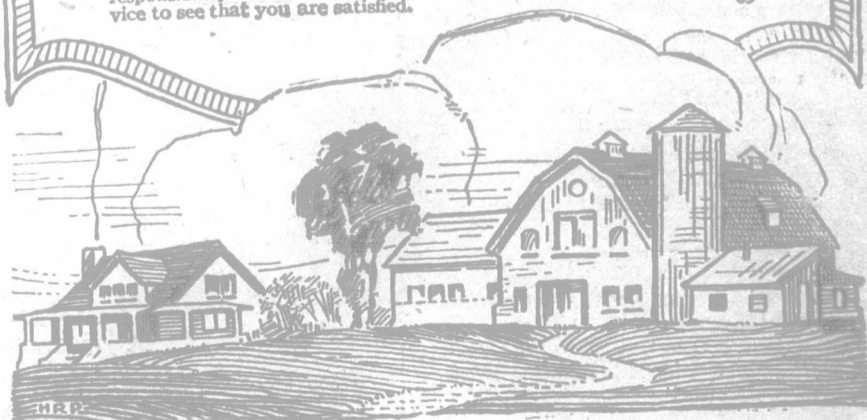
The 3 and 6 h. p. “Z” Engines burn coal oil, distillate or any of the cheaper fuels and develop more than rated horse power.

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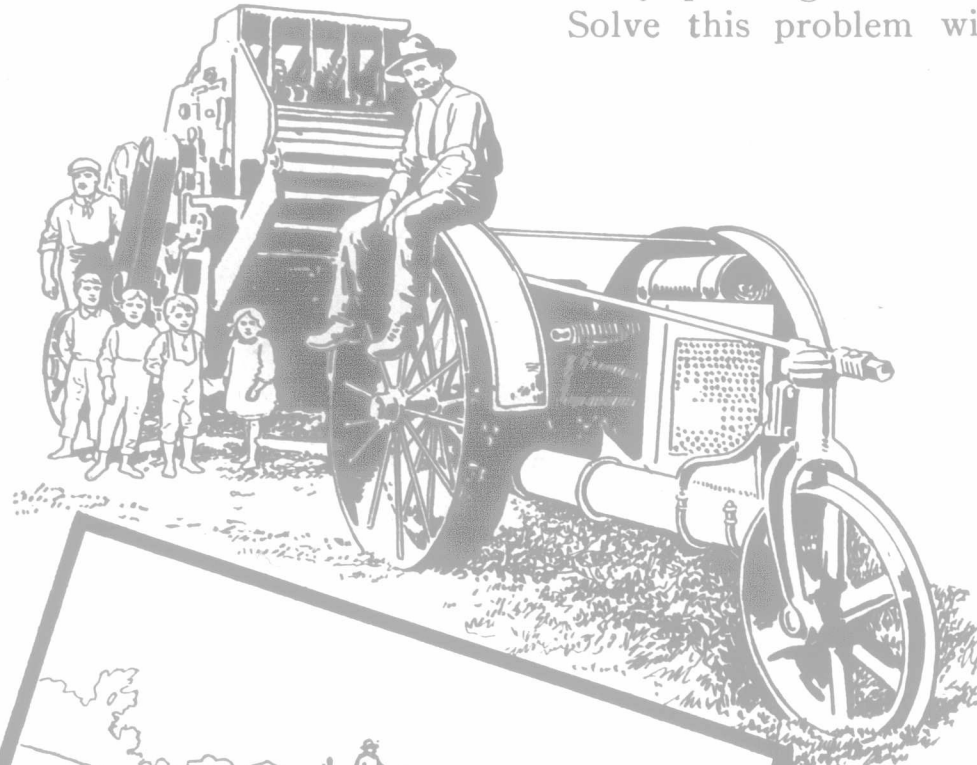
DEALER SERVICE: Your local dealer is a direct representative of the manufacturers. He shares their responsibility. He's at your service to see that you are satisfied.

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Taking the Risks Out of Farming

LOOK back on the opportunities lost through late plowing, seeding or harvesting. Does it pay? Many a season you may have had to do this work before ground or crop was ready. The last part of this at best was delayed until late. With, say a 25 acre tract to plow, twenty days was required—of which ten were devoted to tardy plowing instead of sowing. Of course it doesn't pay: Solve this problem with the



Happy Farmer

12 h.p. at Draw Bar **Tractor** 24 h.p. on Belt Work
Model F

Plowing is the big test. Happy Farmer with one man actually does the work that would need three men with three teams of three or four horses each to do. It speeds up plowing and every other kind of work—it pays.

Happy Farmer is so light—only 3700 lbs—that it makes no more impression per square inch on soft ground than horses hoofs, yet it will pull three 14-inch bottoms at an average depth of eight inches.

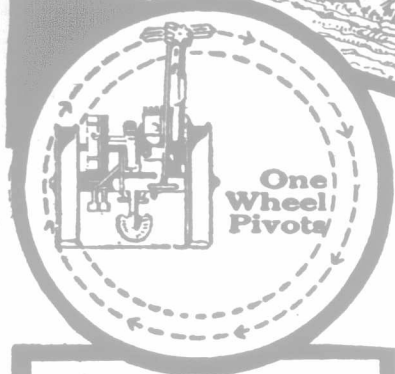
With only 3700 pounds of weight to propel along and 88 per cent of the weight carried by the big tractor wheels, the result is a remarkable combination of power with light weight. It gets no less than 2000 lbs. draw bar pull. That means economy. Compare it with the four wheel heavy type or with horses.

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Happy Farmer Engine burns cheap coal oil, available everywhere. Kerosene means more power at lower cost, providing the engine is a *real* kerosene engine. Happy Farmer is *not adapted* but designed expressly for kerosene. This fuel must reach the combustion chamber hot; our special Carburetor is placed right on the end of the cylinders; the long intake manifold is eliminated, condensation cannot occur, this means the most perfect kerosene burning motor ever invented.

Happy Farmer turns in its tracks, plows up the fences, no unplowed corners to finish with the team, turns sharp corners, with mower or binder, gets in and out tight corners with manure spreader etc. It turns either to right or to left—goes anywhere a horse-team can go. What could be handier?

Happy Farmer just bristles with interesting points of efficiency and economy of service year after year. You should know them. Write for illustrated literature today.



URNS IN ITS TRACKS
Means running furrows up to the fences, short turning with the binder, or hauling around the yard. Self guiding in the furrow.

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Other lines: Renfrew Cream Separators, Renfrew Kerosene Engines, Renfrew Truck Scales

and in turn taught him things he did not know. Teacher and boy became great friends; through this common interest others sprang up and the boy changed from a sullen, inattentive boy to a broad-minded wide-awake man. If the mother could only have shared her boy's interest, how much more helpful they would have been to teach each other.

"Sammy" at the Front.—"Parly voo English, Mademoiselle?" "Yes, a vairy leetle." "Good work! Say could you put me wise where I could line up against some good eats in this burg?"

Current Events

Sir Robert Borden reached Ottawa August 24th. * * * *

On Aug. 21st the new Quebec bridge was successfully tested; two huge trains, loaded to capacity, being sent over at the same time. * * * *

The first large steel vessel built on the Welland Canal for ocean going cargo was launched on August 21st. * * * *

Hon. Dr. Cody, Minister of Education, was elected in Northeast Toronto with a

majority of 4,838, and Hon. Mr. Henry, Minister of Agriculture, in East York with a majority of 2,634 votes. * * * *

The Chinese Government has decided to deport all Germans, to be interned in Australia until the end of the war. * * * *

Finland now has a king. He was formerly Duke Adolf Friedrich of Mecklenburg-Schwerin. * * * *

Along a front of 100 miles in Western Europe the great battle rages, and everywhere the enemy is being forced to withdraw, yet fighting desperately as he goes. On August 20th General Mangin began a

great attack on von Hutier's troops along a 15-mile front, and since then the indomitable Frenchmen have given the Huns no rest, pressing them steadily back up the Valley of the Oise. At time of going to press Noyon, where several roads converge, is on the verge of being captured. Farther north, along a front of 30 miles, the British Third and Fourth armies are hard at it, assisted by the Australians under General Rawlinson. On August 22 Sir Julian Byng's Third Army gained a notable victory taking Albert, where a number of roads converge, and before this reaches its readers Bapaume, also an important road centre, will likely have fallen into British hands.

7% With Safety

We can offer investors a well-secured 7 per cent. mortgage Debenture Stock. The issue—\$2,500,000—is secured by a mortgage on assets, valued at \$15,000,000, of a large Canadian pulp and paper company. Present net earnings are more than four times the interest requirements. A new mill, now nearly completed, will increase the company's earnings.

Investors in this Mortgage Debenture Stock share in the surplus earnings of the company with the development of business. Your savings could not be more profitably invested with safety, so that you cannot do better than write at once for further information. Address:

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INVESTMENT BANKERS

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Guaranteed 35% Protein
and 5% Fat

A nice, finely ground meal, and a Canadian product. We have a fair stock on hand for immediate shipment. Get a supply at once while available. Write or wire us for prices.

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SEPARATE sealed tenders addressed to the undersigned, and endorsed Tender for "Administration and Surgical Bldg., "Active Treatment Wards," "Convalescent Wards," "Service and Dining Room," London, Ont., as the case may be (four separate tenders), will be received until 12 o'clock noon, Wednesday, September 11, 1918, for the construction of administration and surgical building, active treatment wards, convalescent wards, service and dining room, London, Ont.

Plans and specification can be seen and forms of tender obtained at the offices of the Chief Architect, Department of Public Works, Ottawa; the Caretaker, Public Buildings, London, Ont.; the Clerk of Works, Postal Station "F", Toronto, Ont.

Tenders will not be considered unless made on the forms supplied by the Department and in accordance with the conditions set forth therein.

Each tender must be accompanied by an accepted cheque on a chartered bank, payable to the order of the Minister of Public Works, equal to 10 p.c. of the amount of the tender. War Loan bonds of the Dominion will also be accepted as security, or war bonds and cheques if required to make up an odd amount.

By order,
R. C. DESROCHERS,
Secretary.

Department of Public Works,
Ottawa, August 22, 1918.

WANTED Alsike, Timothy, Red Clover, Ontario Grown Alfalfa, and White Blossom Sweet Clover. If any to offer please mail samples, and we will at once let you know highest prices we will pay f. o. b. your station. **TODD & COOK,**
Seed Merchants, Stouffville, Ontario

PATENTS Trade Marks and Designs Procured in all Countries. Special attention given to patent litigation. Pamphlet sent free on application.
Ridout & Maybee Crown Life Bldg. Toronto, Ont.

In the Lys Valley, a centre of so much interest last March, the Germans are steadily retreating also. Everywhere villages and heights—whose names figured long ago when they were taken by the victorious Germans—are coming back to the Allies, ruined and devastated it is true, yet forming milestones of progress, and everywhere thousands of prisoners are being sent back to the prison camps of the Allies. The reports, in short, are a catalogue of victories, yet the end of the war is not yet. It is believed that the Germans may make a great stand along the old, fortified Hindenburg line, and more toll must be taken of the blood of our gallant men. But the result is now certain; the morale of the German armies is breaking, even as in those of the Allies it increases, with the steady encouragement, and talk is renewed of a revolution in Germany "when the war is over."

In the meantime, lest the Teutons receive encouragement from the East, large quantities of arms and ammunition are being sent by the Allies to the Czechs to be used against the Germans and pro-German Bolsheviks; and soldiers from Japan, the United States and Canada are being sent to Valdivostock, where British guns are already in action.

The Dollar Chain

For the soldiers and all who are suffering because of the war.
Contributions from July 19 to August 16: "Toronto," \$2.00; Mary E. Dumphy, Upper Blackville, N.B., \$5; "Margaret," Durham Co., Ont., \$5.

Previously acknowledged.....\$5,573.00
Total to August 16.....\$5,585.00

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

Rimes from a New Nursery

BY R. M. EASSIE.

Jack and Bill, they stuck it till
Their knees were under water;
Jack fell down, and said to Bill
Some words he didn't ougter!

There was an old soldier who lived in
a trench,
Who'd *beaucoup de souvenirs* German
and French:
He sacked them and packed them
For many a mile,
And then got fourteen days for losing
his smoke-helmet!

There was a little Hun,
And he had a little gun,
And his bullets were all dum-dum, dum-dum;
He shinned up a tree
To snipe what he could see,
But now he is in kingdom come-come!

Little Miss Mabel
Sat on a table,
Down in her Estaminay;
A sergeant espied her,
And sat down beside her,
And stayed there the rest of the day!

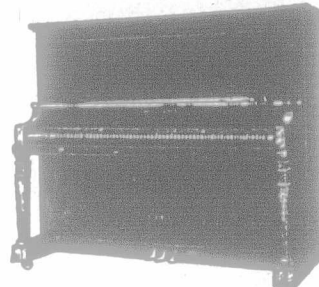
Simple Herman met a German
On a night patrol.
Said simple Herman in bad German
"Wie bist du? Ja wohl!"
Said the German to simple Herman
"All right, Kamerade!"
Simple Herman bombed the German
With a Mills grenade.
In "Odes to Trifles." John Lane Co.,
N. Y.

Toll.

BY EVER M. HOLMES

Not men alone pay toll of war,
But Dumb things in this mortal hell,
Of Pain full measure pay as well;
And tho' not in His image made, as we,
They oft must tip the Scale, I think,
When in the balance weighed with you
and me.
One with the nameless dead are they,
For whom no Hall of Fame is reared
To note the splendor of their day.
These Dumb things leave not kith nor
kin,
To tell to men, with pride, the tale
Of how they fought, of how they bled,
And yet, somehow I trust, with men,
They rank with God's heroic dead.
—Our Dumb Animals.

WILLIAMS New Scale PIANOS



THE Pure, rich, mellow tone, and the sensitive responsiveness of this famous instrument combine to lift it high above the commonplace. It is a piano that will maintain its enduring charm for generations.

Georgian Model, \$500.00
THE WILLIAMS PIANO CO., LIMITED, OSHAWA, ONT.
Canada's Oldest and Largest Piano Makers

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BE SURE TO VISIT THE

Williams Piano Company's Exhibit
WHERE THE

Williams NEW SCALE Pianos

and other high-class Pianos and
Player-Pianos will be demonstrated.

Manufacturers' Building

Second booth to the right as you enter by the Main Entrance

Read About This Cutter!

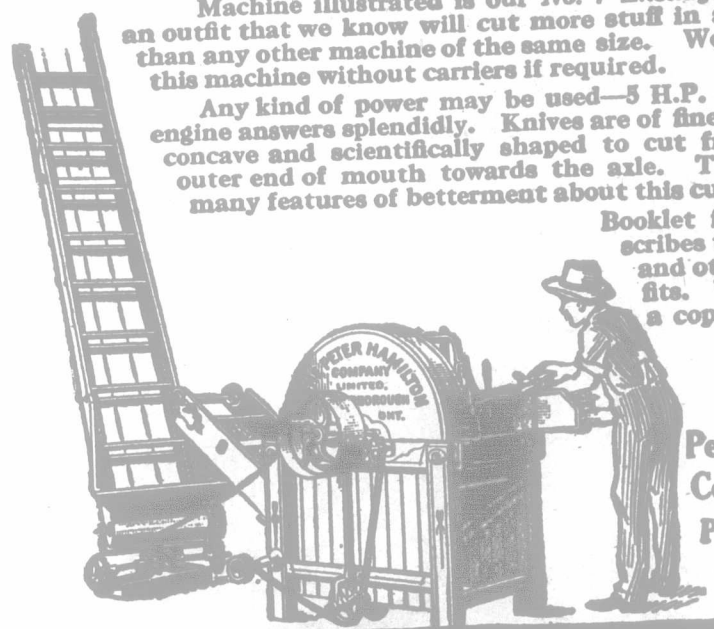
WE have an interesting illustrated booklet to mail you if you are interested in feed cutting and silo filling the most economical way. There is a machine for every requirement among the hand and power outfits of

Peter Hamilton Feed Cutters and Silo Fillers

Machine illustrated is our No. 7 Ensilage Cutter, an outfit that we know will cut more stuff in an hour than any other machine of the same size. We supply this machine without carriers if required.

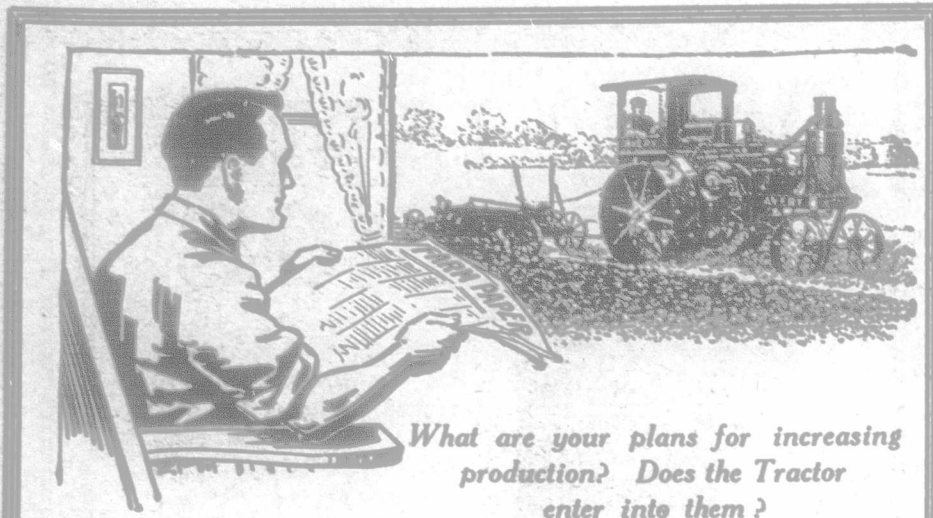
Any kind of power may be used—5 H.P. gasoline engine answers splendidly. Knives are of finest steel, concave and scientifically shaped to cut from the outer end of mouth towards the axle. There are many features of betterment about this cutter.

Booklet fully describes the No. 7 and other outfits. Write for a copy to-day.



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Peter Hamilton
Co., Limited
Peterborough,
Ont.

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R. A. LISTER & CO. (Canada) Limited
TORONTO WINNIPEG MONTREAL



Little
Miss
MAIDEN
CANADA

*If the Whole World
Knew—*

the great food value of cocoa, there would be less poverty.

One half-pound tin of Cowan's Perfection Cocoa added to the usual proportion of milk per cup, equals two pounds of beef in food value.

The cocoa containing the most nourishment, derived from the best and most expensive cocoa beans, may be bought everywhere.
Canada Food Board, License No. 11-608.

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"Perfection Brand"

B61

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Questions and Answers.

- 1st—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.
- 2nd—Questions should be clearly stated and plainly written on one side of the paper only, and must be accompanied by the full name and address of the writer.
- 3rd—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.
- 4th—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

Miscellaneous.

Crown-Rot.

Two trees in my orchard are dying. There is a decaying of the roots just below the surface. What is the trouble?
W. F. H.

Ans.—The symptoms resemble that of crown-rot or mushroom root rot. In some way or other the root becomes injured and the fungus enters through the injured bark. The hyphae of the fungus grow into the root cells killing them resulting in the decay of the root. Once trees are affected there is little hope of saving them. The fungus is common in newly cleaned land. If a diseased tree is removed another should not be planted in its place for several years.

Blackhead.

We are having trouble with our young turkeys, they droop their wings and in about three or four days die. I am feeding them on shorts and stale bread-crusts. Could you advise me how to feed them? They are about ten weeks old and have the run of the farm. P. B.

Ans.—From the symptoms given it is difficult to definitely diagnose the case. The disease known as Blackhead may have made its entrance into the flock. If so, raising the flock to maturity may be a discouraging proposition. Lack of appetite, emaciation, diarrhoea and discoloration of the head are some of the symptoms of the disease. Enlarged liver containing sunken spots and the caeca plugged with cheesy contents are indications that the bird has died of Blackhead. Diseased birds should be isolated and the flock put on fresh ground. Remedies are not always effective. One teaspoonful of muriatic acid to a pint of drinking water is recommended. You might try giving a mixture of 5 grains sulphur, one grain sulphate of iron and 3 grains sulphate of quinine. At this time of year turkeys will pick practically their entire living in the fields. However it is good practice to feed a little whole grain at night to induce them to come home to roost.

Gossip.

Shorthorn Trade Briak.

J. A. & H. M. Pettit, Freeman, Ont., report a good trade for their Scotch Shorthorns. The recent importation of 40 head is practically all sold. Messrs. J. W. Evans & Son, Woodstock, Ohio, bought 32 head, a choice lot. These gentlemen have been extensive purchasers from this herd during the past two or three years. E. W. Laibe and A. E. Campbell, Columbus Grove, Ohio, also visited the herd and selected a carload of choicely bred stuff. Maurice Winn, Lucerne, Indiana, bought 12 head, consisting of two imported females with heifer calves and the balance Canadian-bred heifers. A good imported cow with heifer calf at foot went to R. Gorman, Oakville, Ont. Another imported cow, a Secret with a good heifer calf was taken by T. E. Post & Sons, Trafalgar, Ont. They also got a good imported Princess Royal bull calf. C. T. Ware & Son, Niagara Falls South, purchased a red three-year-old imported Miss Ramsden bull to head their herd. He is a very lowset, thick, heavy-fleshed bull and should breed well for Messrs. Ware.

Another importation of 35 head are now in quarantine and will be home about Sept. 25. It consists of cows with calves at foot and heifers carrying calves, and will be of interest to any one in the market for foundation stock.

A dozen very desirable young bulls are on hand right now. Six of these are imported calves just about old enough for service. A real good lot. This herd never consists of less than 75 or 80 head and sometimes may reach 110 or 120 so that visitors may always count on finding something for sale.

SEEDS

Fall Wheat
Dawson's Golden Chaff, \$3.00 Per Bus.

Fall Rye
\$3.00 Per Bus.

TIMOTHY

Government Standard No. 1.....	Per Bus. \$0.75
No. 2 (Extra No. 1 for Purity).....	0.25
Government Standard No. 2 (No. 1 for Purity).....	0.00

Bags free for wheat and rye, 50c extra for timothy.

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

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

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

AN EXPERIENCED DAIRY HAND WANTS work the first week in September. Please state wages. Apply Box "A" Farmer's Advocate, London, Ont.

FARM FOR SALE—ESTATE OF MRS. R. Gleason, Lot 26, Concession 10, East Nissouri. First-class buildings, in good repair, well drained and well fenced; 60 rods from school, 2 miles from railroad station, cheese factory and church. Apply J. L. Gleason, R.R. 1, Lakeside.

FOR SALE—FERRETS—RABBITS—SMALL grey ferrets, good hunters, don't bite; also tame rabbits. Wilfrid Costello, Branchton.

FARMER (LIFE EXPERIENCE) WANTS position—Take management of dairy or mixed farm, S. Ontario. Pentelov, Colborne, Ont.

FARM MANAGER (40) MARRIED, OPEN re-engagement October; thoroughly experienced in mixed farming; capable full control. Apply Box 10, Farmer's Advocate, London, Ont.

WANTED—A WOMAN MANAGER FOR small farm in connection with Girls' Educational Institution. Practical knowledge of Dairying, Poultry and Horticulture. A teaching knowledge of Domestic Science preferred. Correspondence solicited. Apply P. O. Box 461, Sherbrooke, P. Que.

WANTED—MANAGER FOR SMALL STOCK farm; 30 to 40 cattle, Aberdeen-Angus; 50 to 75 sheep; 100 acres cultivated, 100 acres pasture. Lake front, complete buildings. Take charge after summer. Apply by letter, stating experience and references, to Farm, care Canadian Bank of Commerce, Toronto.

WANTED—HERDSMAN FOR SHORTHORN herd; married man preferred. Apply by letter, stating experience and salary. H. M. Pettit, Freeman, Ont.

POULTRY

EGGS

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

I HAVE 400 S.-C. WHITE LEGHORNS, LAST year's pullets for sale. These are part of my flock of Barron Leghorns, from which I produced thirty thousand baby chicks. Eggs averaged over 90% fertility, and hatched over 80% chicks, and it was commonly remarked that they were the strongest chicks seen this season. These birds were hatched from over 200-egg cockerels heading the pen, and they have demonstrated their heavy-laying qualities in their pullet year. Price in lots of 10 or less, \$2 each; from 10 to 25 for \$1.75 each; over 25 for \$1.50 each. Order now and make sure of your requirements. Hind, 1950 Gerrard St. East, Toronto.

WANTED

Live Fowl

WALLER'S, 702 Spadina Ave., Toronto
WRITE FOR PRICE LIST

All Located.

In a recent trial in the County Court it was necessary for the jury to know the whereabouts of all the members of a negro family at a certain time. So the witness was asked:

- "Where was Mary?"
- "In de back yahd."
- "Where was Jane?"
- "Upstairs in de front room."
- "Where was Ann?"
- "She was on de front pohch."
- "And where was Elizabeth?"
- "She was in de pantry takin' a bath."

MODERN FARM EQUIPMENT

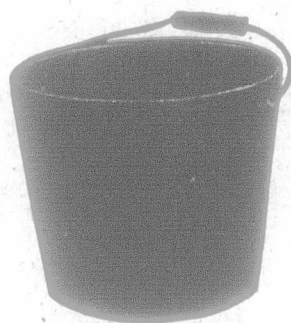
Must necessarily include EDDY'S FIBREWARE Milk Pails, Butter Tubs and General Utility Pails. For this Ware will not transmit taste—is easily cleaned because of its smooth, impervious surface—and is light to handle.

Here is what a well-known New Brunswick Dairy Company has to say about these Tubs. The President of the concern writes:

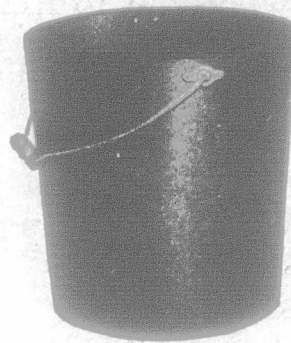
"We have packed our butter in them in preference to the ordinary export boxes, and it has always turned out sweet as a nut when brought out of cold storage.

"Further than this, we might also say that there is practically no shrinkage whatever in the butter packed in these Tubs, while there is a certain amount of shrinkage from the wooden Tub.

"We have had quite an extended experience with this Tub, and it is beyond doubt unexcelled for packing butter, and particularly so if the butter is to be used for local consumption, or at near enough points for the Tub to be returned; because it can then be scalded and be as good as ever, while the wooden tub invariably shows the brine coming through, which rusts and spoils the appearance of the tub so that it cannot be used again."



General Utility Pail



Milk Pails



Butter Tub or Spice Pail

MADE BY

The E. B. Eddy Company

HULL, CANADA

AND SOLD BY GROCERS AND HARDWARE STORES THROUGHOUT CANADA

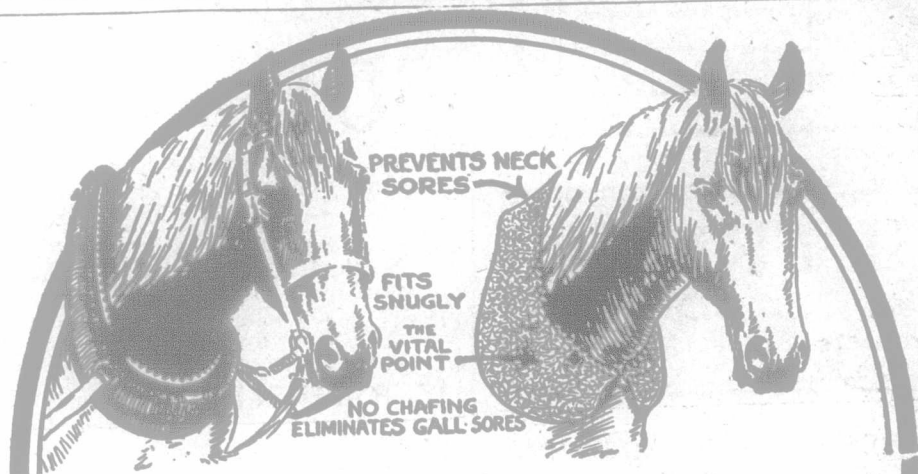
Dehorning Cattle.

EDITOR "THE FARMER'S ADVOCATE":

The last few years has seen a big increase in the practice of dehorning cattle, and as far as the West is concerned, most of the steers that now come on the market and many of the heifers are of the hornless variety. There are several advantages gained by dehorning. After the operation the nature of a "hooker" will often alter altogether, and cows or steers that were long-horned and wild become quieter and more placid after their horns are removed. Wherever the cattle are fed in troughs in the feed lot the removal of their horns insures each animal an equal chance. Wherever cattle are shipped by rail the removal of their horns removes much of the danger of injury while in transit, as it prevents them from goring one another, causing a shrinkage in weight, an injury to the hide and a bruised condition to the meat when butchered. Also a bunch of dehorned cattle look much more uniform in appearance, and this in turn increases their value.

In dehorning two methods may be used. One consists in treating with caustic the undeveloped horns of the young calves, and so preventing the future growth of the horn. The other is the removal of the entire horn from a mature animal. In treating the calves with caustic the chief drawback seems to be the lack of time to catch them at the proper time. To obtain the best results the caustic must be applied when the calves are from four to ten days old. At this age the knob, or horn bud is only loosely attached to the skull, and appears more as part of the skin. If the growth of horn has actually started the caustic will merely check the growth, and the result will be an unsightly malformed horn that will have to be removed later with the clippers.

We have found that there are two times to dehorn, that is when the calf is around ten days old, or again when the animal is mature. To take a young animal around a year old and remove the horns with a clipper means, in many cases, that the horn will grow again. In using caustic on the calves, care should



A Full Day's Work From Every Horse

How much do you lose each year because your horses are laid up with sore shoulders or chafed necks? A lot of money, more than you can afford to lose. Save this loss by fitting your horses' collars with



Ventiplex Pads make snug-fitting collars, they are sanitary, and can be readily washed. Use Ventiplex, they will save you money.

Burlington-Windsor Blanket Co.
Toronto, Canada

be taken that it does not touch anywhere except on the horn bud. Any drug store can supply caustic, either soda or potash. It usually comes in sticks the size of a lead pencil. The hair must be clipped away from the horns before the caustic is applied, and the edges of the hair should be well smeared with vaseline. This prevents the caustic from spreading to the rest of the head and forming a sore. The stick of caustic should be well wrapped in paper, with one end exposed, else the operator's hands will get burned. The end of the stick is then moistened and rubbed on each horn bud three or four times alternately, allowing it to dry each time before applying it again. Extreme care must be taken during the operation. The stick must not be so wet that the caustic will run down the side of the calf's face, or severe burns will result, with a probable loss of sight should the eyes be touched. If the weather is wet or if there is any danger of rain the calves must be kept under shelter. When properly done a scab will form over the horn bud, which will drop off within a few days. When successful this method makes a better job than removing the mature horns, as there is no unsightly stump left.

When the calves have not been treated with caustic and the horns are full grown it is necessary to use either a saw or a pair of patent dehorners. For young cows and heifers, where the horns are thin and soft, the dehorners fill the bill in every respect. With older animals or bulls, where the horns are heavy and brittle, a saw will usually make a better job, as the crushing of the horns in an older animal causes the bones to splinter, which makes a wound that is hard to heal. We have found, in dehorning a bunch of cattle, that we need three men to handle the job. The cattle are kept in the barn, and are taken outside, one at a time as required, and are snubbed to a post, as tightly as possible, with a rope around the neck and a pair of pincers in the nose. One man is thus able to hold them. For the dehorners, which are like a pair of big tree pruners with long handles, we have found we need one man on each handle. The cutting knife is slipped over the horn and the handles are pressed

Beyond the Experimental Stage

ALL along the line, at every point, the engineering problems peculiar to Kerosene as a fuel have been solved in the Renfrew. It is the true kerosene engine, not adapted from gasoline Engines but developed on kerosene ideas. The

Renfrew Kerosene Engine

is just bristling with advantages that coax the very last bit of power out of coal oil, reducing carbon troubles to a minimum. Run your eye down the accompanying list of features.

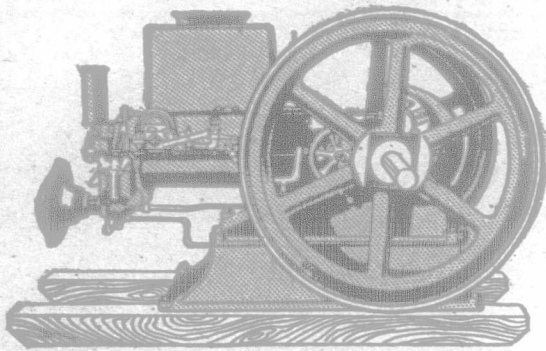
These things mean an engine you can depend on to give you real service at low cost—for kerosene is cheaper than gasoline, can be bought anywhere, and in this engine gives up all its power.

That's the Engine for you. Learn all about it now by getting our free catalogue. Write today.

The Renfrew Machinery Co., Limited

Head Office and Works, Renfrew, Ont.
Eastern Branch, Sussex, N.B.

Other lines: Renfrew Cream Separator, Happy Farmer Tractor, Renfrew Truck Scales.



Features that mean Satisfaction

STARTING:—Handy Controls—three at one place, needle valves, for regulating supply of gasoline, water and kerosene, easily adjusted.

RUNNING:—Special Kerosene Mixer—with auxiliary air valve, insuring properly mixed charge under full or light load.

Throttle Valve, for fuel supply, controlled perfectly by sensitive governor.

Oscillating Magneto and igniter combined, makes and fires big spark, always reliable.

Cooling—Ample water jacket and extra wide roomy hopper on top for water.

Perfect Alignment assured by heavy studs securing cylinder and frame (separate parts) easily renewable.

Gears—Machine cut, perfectly true and smooth.

Smooth, even running assured by extra heavy large diameter fly wheels.

To Our Subscribers

We wish to express our thanks for the many instances of good-will and appreciation of the work that the Farmer's Advocate has done and is doing.

Nearly every day we receive the names of new subscribers, who have become so through the interest of our friends, and there is nothing that affords more encouragement to the management and editors than such tokens of approval.

You will be glad to know that the number of our readers is steadily increasing, and that is due largely to your efforts, as we are not employing any paid canvassers, as we want people to read the Advocate because it has been fighting for the farmers' interests for over fifty years, and not because a fluent canvasser has talked them into it.

As a Return for Your Interest and Help

for each new subscription you send us with \$1.50, we will advance the date on the label of your own paper

SIX MONTHS, FREE OF CHARGE!

Just send their names and addresses plainly written to avoid delay and mistakes, or if you wish use the attached coupon.

COUPON

The Farmer's Advocate and Home Magazine, London, Ontario.

Gentlemen:—Enclosed are the names of new subscribers and the sum of \$ Please advance the date on my label months as per your advertisement.

Name of sender.....Address.....

Name of new subscriber.....Address.....

Name of new subscriber.....Address.....

On account of losing all our barns by fire we are forced to reduce our herd, hence we offer for sale

30 Head Purebred Holsteins

ON PETERBORO EXHIBITION GROUNDS, AT 2 P.M.

Thursday, September 12th, 1918

These all are a very choice lot of young females, 15 granddaughters of Pontiac Rag Apple 8th, 1, 2, 3-year-olds. The dams of these are nearly all great-granddaughters of Pontiac Korndyke. For high testing and type they are hard to beat. Extended pedigrees will be furnished at the sale with register certificate and transfer.

TERMS: 6 months on bank paper, or 6% per annum for cash.

THIS IS THE PROPERTY OF

W. R. SHIELD & SON

Peterboro, R.R. 2

LIVE POULTRY

We are open to handle large quantities of live spring chickens or live poultry of any kind; highest market prices paid according to quality. Write us for quotations; Prompt returns

Henry Gatehouse & Son, 348 Dorchester St. W., Montreal

tightly together. This must be done quickly. Once the horn is partly cut the chief essential is speed, so that a clean cut can be made. If this is not done the horn will break and splinter, and make a rough, uneven job. Care should be taken to cut enough of the horn to make sure that unsightly stubs will not grow out. To do this it is necessary to cut from one-eighth to one-half inch of skin off with the horn. If this is done the horn forming cells are usually destroyed, which prevents further growth.

We usually dehorn in the spring before the warm weather starts or the flies become bothersome. There will be considerable bleeding at first, but this will generally stop after a few hours. Where the bleeding is continued touching the tips of the wounds with a hot iron will stop the flow. This is sometimes done in all cases, but it is not necessary. We often tie a stout string tightly around both horns, across the forehead and at the back of the head, and this can be tightened up to stop most of the bleeding.

British Columbia. H. C. HADDON.

A Scottish soldier, badly wounded, requested an Army Chaplain to write a letter for him to his wife. The Chaplain, anxious to oblige, started off with "My dear Wife—"

"Na, na," said the Scotsman, "dinna it that doon. Ma wife canna see a joke"

Questions and Answers. Miscellaneous.

Collecting a Note.

I have a note for a large amount drawn up for one year, due last fall. The interest was paid promptly but nothing was said about the principal. When can this note be legally collected? W. H. Ontario.

Ans.—Now that it is overdue, proceedings to collect the amount of it, principal and interest at any time. Action on it would be barred after six years from the time it fell due, last fall, if nothing more is paid in the meantime.

Markets

Continued from page 1404.

American corn, \$1.87; No. 3 sample, \$1.55. Manitoba sample barley, \$1.30; No. 3 Ontario extra, \$1.29 and No. 3 Ontario, \$1.27.

Flour.—The market was steady with Government Standard Manitoba flour, \$10.95 per barrel, in bags, f. o. b., Montreal, and 10c. more delivered; Ontario winter wheat flour, \$11.60, in new cotton bags; rye flour, \$13 per barrel; barley flour, \$12.50; oat flour, \$12; white corn flour, \$12; Government Standard corn flour, \$11.60; grain flour, \$11.05.

Millfeed.—Shorts were steady at \$40, and bran at \$35 including bags, per ton, delivered; feed cornmeal, \$68; pure grain

mouille, \$67; oat mouille, \$67; mixed mouille, \$55; Barley feed, \$64.

Baled Hay.—Hay was in good demand both for local account and for shipment to the U. S. and for the latter market No. 1 has been sold at \$15 per ton, f. o. b., shipping point. Locally No. 2 was quoted at \$15 to \$15.50; No. 3 was \$13 to \$14, and clover mixed \$8 to \$10, extra.

Hides.—Lamb skins advanced to \$3.60 each; calves skins were 55 cents each. Cow hides 18½c. per lb; bull hides 17c. per lb., and steer hides 23c. per lb. flat, or 21c. to 22c. and 23c., Montreal inspection, for Nos. 3, 2 and 1. Horse hides were firmer at \$5 to \$6.75 each. Tallow steady at 3½c. per lb. for scrap fat., 8c. for abattoir fat; 16c. to 16½c. rendered.

Cheese Markets.

St. Hyacinthe, Que., 22½c.; London, 22c.

Back to Nature.—"Why is it, Sam, that one never hears of a darky committing suicide?" inquired the Northerner.

"Well, you see, it's disaway, boss: When a white pusson has any trouble he sets down an' gits to studyin' 'bout it an' a-worryin'. Then firs' thing you know he's done killed hisse'f. But when a nigger sets down to think 'bout his troubles, why, he jes' nacherly goes to sleep!"

His First Performance.—"Who's dead?" asked the stranger, viewing the elaborate funeral-procession.

"The bloke what's inside the coffin," answered an irreverent small boy.

"But who is it?" the stranger pursued.

"It's the Mayor," was the reply.

"So the Mayor is dead, is he?" mused the stranger.

"Well, I guess," said the small boy, witheringly. "D'you think he's having a rehearsal?"

Two elderly gentlemen, both decently clothed in sober black, were sitting side by side in a Euclid Avenue car, says a writer in the Cleveland Plain-Dealer. Each was reading a morning paper. Suddenly one of the men uttered an exclamation of pleasure, and the other peered at him over his glasses.

"I see here," explained the first, with a beaming face, "that Mr. B., who died last week, has left his entire fortune to various charitable enterprises. This will be a surprise to his many relatives. It is to me—a glad surprise, in my case, for I am the pastor of a church to which he has left ten thousand dollars."

The second man looked at the article, and his face, too, became wreathed in smiles. "God bless him!" he exclaimed heartily. "All to charitable institutions, in spite of his relatives! Ah, sir, I like to see money left like that, I do, indeed!"

"Are you, also, a clergyman?"

"No, sir; I am a lawyer."



We ALL Rely on the Seaman Can He Rely on Us to Protect His Dependents?



Ontario's Objective
\$1,000,000
Ontario has Never Failed!
Give! Give Liberally!
REMEMBER
BY GIVING!

SAILORS' WEEK
Sept. 1st to 7th
INCLUSIVE

THE NAVY LEAGUE OF CANADA
Commodore Aemilius Jarvis, President
(Ontario Division)
34 King St. West, Toronto
CAMPAIGN COMMITTEE
Sir John Eaton, Chairman



CANADA'S farms and factories have taken a most important part in the Allies' struggle. Our wheat and beef and munitions have helped to save the day! But to transport our produce to Europe has been a task of the most perilous nature. With submarines and floating mines menacing every Atlantic route, it has taken stout-hearted, loyal seamen to man the boats.

Of the 300,000 men of the **Merchant Marine**, 15,000 have already given their lives, leaving widows and children unprovided for in many cases. The tragedy is that this splendid body of men is not officially recognized by governments. There is no separation allowance, no pension, no relief for dependents, other than that prompted by our appreciation of the supreme gallantry of the men of the sea.

Because these men brave the perils of the submarine and the floating mine, Canada is prosperous—wheat is commanding \$2.24 a bushel, and the prices of other grains and meats are equally high. There is a big balance of trade in our favor. Before the war the balance was heavily against us.

By all that's just, we who have prospered must help to take care of the widows and orphans.

38

Dates of Fall Fairs 1918.

The following are dates of Fall Fairs issued by the Agricultural Societies Branch of the Ontario Department of Agriculture, Toronto, of which J. Lockie Wilson is Superintendent:

Aberfoyle.....	Oct. 1
Abingdon.....	Oct. 11 & 12
Acton.....	Sept. 24 & 25
Agincourt (Scarboro).....	Sept. 24 & 25
Ailsa Craig.....	Sept. 19 & 20
Alexandria.....	Sept. 10 & 11
Alfred.....	Sept. 24
Alliston.....	Oct. 3 & 4
Alvinston.....	Oct. 8 & 9
Amherstburg.....	Sept. 30 & Oct. 1
Ancaster.....	Sept. 24 & 25
Arnprior.....	Sept. 17-19
Arthur.....	Sept. 24 & 25
Ashworth.....	Sept. 27
Atwood.....	Sept. 17 & 18
Avonmore.....	Sept. 17 & 18
Aylmer.....	Sept. 26 & 27
Ayton.....	Sept. 17 & 18

Bancroft.....	Sept. 26 & 27
Barrie.....	Sept. 23-25
Baysville.....	Oct. 3
Beachburg.....	Sept. 23-25
Beamsville.....	Sept. 20 & 21
Beeton.....	Oct. 8 & 9
Belleville.....	Sept. 2 & 3
Berwick.....	Sept. 16 & 17
Binbrook.....	Oct. 7 & 8
Blackstock.....	Sept. 24 & 25
Blenheim.....	Oct. 3 & 4
Blyth.....	Sept. 23 & 24
Bobcaygeon.....	Sept. 25 & 26
Bolton.....	Sept. 30 & Oct. 1
Bothwell's Corners.....	Sept. 19 & 20
Bowmanville.....	Sept. 17 & 18
Bradford.....	Oct. 10 & 11
Bracebridge.....	Sept. 26 & 27
Brampton.....	Sept. 20 & 21
Brigden.....	Oct. 1
Brighton.....	Sept. 12 & 13
Brinsley.....	Oct. 8
Bruce Mines.....	Sept. 25
Brussels.....	Sept. 17 & 18
Burk's Falls.....	Sept. 26 & 27

Burford.....	Oct. 1 & 2
Burlington.....	Thanksgiving Day
Caledon.....	Oct. 15 & 16
Caledonia.....	Oct. 10 & 11
Campbellford.....	Sept. 24 & 25
Carp.....	Oct. 24 & 25
Castleton.....	Oct. 1 & 2
Cayuga.....	Sept. 24 & 25
Centreville.....	Sept. 14
Charlton.....	Sept. 17 & 18
Chatham.....	Sept. 17-19
Chatsworth.....	Sept. 12 & 13
Chesley.....	Sept. 17 & 18
Clarence Creek.....	Sept. 19
Clarksburg.....	Sept. 17 & 18
Cobden.....	Sept. 26 & 27
Cobourg.....	Oct. 1 & 2
Cochrane.....	Sept. 26 & 27
Colborne.....	Sept. 16 & 17
Coldwater.....	Sept. 24 & 25
Collingwood.....	Sept. 18-19
Comber.....	Sept. 27 & 28
Cookstown.....	Oct. 1 & 2
Cooksville.....	Oct. 2
Cornwall.....	Sept. 5-7

Courtland.....	Oct. 3
Delta.....	Sept. 16-18
Demorestville.....	Sept. 28
Desboro.....	Sept. 19 & 20
Dorchester Station.....	Oct. 2
Drayton.....	Oct. 1 & 2
Dresden.....	Sept. 26 & 27
Drumbo.....	Sept. 24 & 25
Dryden.....	Sept. 26
Dunchurch.....	Oct. 4
Dundalk.....	Oct. 2 & 3
Dungannon.....	Oct. 3 & 4
Dunnville.....	Sept. 19 & 20
Durham.....	Sept. 24 & 25
Elmira.....	Sept. 20 & 21
Elmvale.....	Sept. 24 & 25
Embro.....	Oct. 3
Emo.....	Sept. 19 & 20
Emsdale.....	Sept. 24 & 25
Englehart.....	Sept. 19 & 20
Erin.....	Oct. 9 & 10
Essex.....	Sept. 17-19
Exeter.....	Sept. 16 & 17
Fairground.....	Oct. 1
Fenelon Falls.....	Sept. 13 & 14



Penmans Hosiery

THE STANDARD OF EXCELLENCE

Frolicsome children, with stockings up and stockings down, surely put hosiery to the test in their everyday-play.

Penmans know this, and make their hosiery seamless and reinforce it where the wear comes hardest.

Penmans, Limited
Paris



Also makers
of Sweater Coats
and Underwear

149

Fenwick.....	Sept. 24 & 25
Fergus.....	Sept. 26 & 27
Feversham.....	Oct. 1 & 2
Flesherton.....	Sept. 26 & 27
Florence.....	Oct. 3 & 4
Fordwich.....	Oct. 5
Forest.....	Sept. 26 & 27
Fort Erie.....	Sept. 25 & 26
Fort William.....	Sept. 17-19
Frankford.....	Sept. 19 & 20
Frankville.....	Sept. 19 & 20
Freelton.....	Thanksgiving Day
Galetta.....	Sept. 25 & 26
Georgetown.....	Oct. 2 & 3
Glencoe.....	Sept. 24 & 25
Goderich.....	Sept. 25-27
Goderham.....	Oct. 3
Gordon Lake.....	Sept. 27
Gore Bay.....	Oct. 2 & 3
Grand Valley.....	Sept. 19 & 20
Gravenhurst.....	Sept. 19 & 20
Haliburton.....	Sept. 26
Hanover.....	Sept. 26 & 27
Harriston.....	Sept. 26 & 27
Harrow.....	Oct. 8 & 9
Harrowsmith.....	Sept. 19 & 20
Hepworth.....	Sept. 17 & 18
Highgate.....	Oct. 11 & 12
Holstein.....	Sept. 24 & 25
Huntsville.....	Sept. 24 & 25
Hymers.....	Sept. 24
Ingersoll.....	Sept. 30 & Oct. 1
Inverary.....	Sept. 11
Iron Bridge.....	Oct. 5
Jarvis.....	Oct. 3
Kagawong.....	Oct. 4
Kenne.....	Oct. 2
Kemble.....	Sept. 26 & 27
Kemptville.....	Sept. 5 & 6
Kenora.....	Sept. 5 & 6
Kilsyth.....	Oct. 3 & 4
Kincardine.....	Sept. 19 & 20
Kingston.....	Sept. 24-27
Kinmount.....	Sept. 12 & 13
Kirkton.....	Oct. 3 & 4
Lakefield.....	Sept. 17 & 18
Lakeside.....	Sept. 26
Lambeth.....	Sept. 25
Lanark.....	Sept. 12 & 13
Langton.....	Oct. 12
Lansdowne.....	Sept. 19 & 20
Leamington.....	Oct. 2-4
Lindsay.....	Sept. 19-21
Lion's Head.....	Oct. 3 & 4
Listowel.....	Sept. 19 & 20
Lombardy.....	Sept. 7
London (Western Fair).....	Sept. 6-14
Lucknow.....	Sept. 26 & 27
Loring.....	Sept. 27
Maberly.....	Sept. 25
Madoc.....	Oct. 1 & 2
Magnetawan.....	Sept. 24 & 25
Manitowaning.....	Sept. 26 & 27
Markdale.....	Oct. 8 & 9
Markham.....	Oct. 3-5
Marmora.....	Oct. 1
Marshville.....	Sept. 8 & 9
Massey.....	Oct. 2 & 3
Matheson.....	Sept. 24 & 25
Mattawa.....	Sept. 25 & 26
Maxville.....	Sept. 26 & 27
Maynooth.....	Sept. 26
McDonald's Corners.....	Sept. 27
Meaford.....	Sept. 26 & 27
Melbourne.....	Oct. 11
Merlin.....	Sept. 19 & 20
Merrickville.....	Sept. 17 & 18
Metcalfe.....	Sept. 17 & 18
Middleville.....	Oct. 4
Midland.....	Sept. 25 & 26
Mildmay.....	Sept. 16 & 17
Millbrook.....	Oct. 3 & 4
Milton.....	Oct. 8 & 9
Milverton.....	Sept. 26 & 27
Minden.....	Sept. 24
Mitchell.....	Sept. 24 & 25
Mount Brydges.....	Oct. 4
Mount Forest.....	Sept. 18 & 19
Muncey.....	Sept. 26
Murillo.....	Oct. 1 & 2
New Hamburg.....	Sept. 12 & 13
Newington.....	Sept. 24 & 25
New Liskeard.....	Sept. 24 & 25
Newmarket.....	Sept. 25-27
Niagara-on-the-Lake.....	Sept. 26 & 27
Noelville.....	Sept. 17
Norwich.....	Sept. 24 & 25
Norwood.....	Oct. 8 & 9
Oakville.....	Sept. 16-18
Odessa.....	Oct. 4
Ohswekin.....	Oct. 2-4
Onondaga.....	Sept. 30, Oct. 1
Orangeville.....	Sept. 17 & 18
Oro.....	Sept. 20
Orono.....	Sept. 26 & 27
Orrville.....	Sept. 25
Oshawa.....	Sept. 9-11
Ottawa (Central Canada).....	Sept. 7-16
Otterville.....	Sept. 26 & 27
Owen Sound.....	Sept. 10-12
Paisley.....	Sept. 24 & 25

IRON AGE

POTATO DIGGERS

answer the farmers' big questions: How can I get my potatoes out quickly with less help and fewer horses? How can I have my tubers ready for a high-price market safely put away before freezing?

The **IRON AGE** Digger rolls the potatoes out in long rows ready to gather, clear of dirt, weeds and tops. It turns short into next row, or can be backed.

The staunch, powerful, and dependable No. 155 shown here will take care of the heaviest conditions. Made by specialists in potato machinery -- in business over 82 years.

THE BATEMAN-WILKINSON CO., Ltd.
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Toronto,
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For many years this company has had an exhibition of Harness and Saddlery at the National Exhibition. This year we shall occupy our usual place—

UNDER THE GRAND STAND. We want Farmers and Harness Dealers to come to see us—please.

Many new and interesting items, and we can quote prices, too.

For the Harness Trade—We carry a complete line of Automobile Accessories suited to the Harness Trade, which they can handle with assured profit. Get a copy of our Booklet when you call at our Exhibit.

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Mr. Married Man---Do This

Write out instructions for your wife to follow with reference to earning an income for the support of herself and your children after your death.

After you have found out how "easy" it is to write out these instructions, figure out how "easy" it is going to be for your wife to carry them out.

The task we think will convince you that you must maintain as much life assurance as you can possibly afford in order that your family shall not be dependent upon the charity of others, if you should die.

Don't put it off. Don't say that you expect your business to be in such shape that your family will have nothing to worry about. Think of all the men who do not own \$500 in real money today who were worth thousands of dollars two years ago.

If you haven't all the life insurance you can afford write for our booklet entitled "The Creation of an Estate." It will interest you.

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For the Business Man on the Farm

The desk pictured above—the "Efficiency Desk" will do for you, in your record-keeping, what the automobile and the modern tractor have done in the field of actual farm development.

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Your accounts, taxbills, insurance papers—everything fits into it—and right at your fingers' ends. You've probably been looking for something like this before—a desk and a record-keeping convenience combined. Here it is to suit your needs exactly—and at the price of a desk alone.

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909

Pakenham	Sept. 23 & 24
Palmerston	Sept. 17 & 18
Paris	Sept. 26 & 27
Parham	Sept. 17 & 18
Parkhill	Sept. 23 & 24
Parry Sound	Sept. 25-27
Perth	Sept. 5-7
Peterboro	Sept. 12-14
Petrolia	Sept. 19 & 20
Pictou	Sept. 17-19
Pinkerton	Sept. 20
Port Carling	Sept. 19
Port Elgin	Sept. 18 & 19
Port Perry	Sept. 26 & 27
Powassan	Sept. 25 & 26
Priceville	Oct. 3 & 4
Queensville	Oct. 8 & 9
Rainham Centre	Sept. 17 & 18
Rainy River	Sept. 10 & 11
Renfrew	Sept. 18-20
Riceville	Sept. 25
Richmond	Sept. 20 & 21
Ridgetown	Oct. 7-9
Ripley	Sept. 24 & 25
Roblins Mills	Sept. 20 & 21
Rocklyn	Oct. 4
Rockton	Oct. 8 & 9
Rockwood	Oct. 3 & 4
Rodney	Sept. 30, Oct. 1
Roseneath	Sept. 26 & 27
Rosseau	Sept. 16-18
Sarnia	Sept. 24 & 25
Sault Ste. Marie	Oct. 2-4
Schomberg	Oct. 10 & 11
Seaforth	Sept. 19 & 20
Shannonville	Sept. 14
Shedden	Sept. 18
Sheguiandah	Oct. 1 & 2
Shelburne	Sept. 24 & 25
Simcoe	Oct. 7-9
Smithville	Sept. 17 & 18
South Mountain	Sept. 12 & 13
South River	Oct. 3 & 4
Spencerville	Sept. 24 & 25
Springfield	Sept. 19 & 20
Sprucedale	Sept. 23 & 24
Stella	Sept. 24
Stirling	Sept. 25 & 26
Stratfordville	Sept. 18
Stratford	Sept. 16-18
Strathroy	Sept. 16-18
Streetsville	Sept. 25
Sturgeon Falls	Sept. 18 & 19
Sunderland	Sept. 17 & 18
Sundridge	Oct. 1 & 2
Tara	Oct. 1 & 2
Tavistock	Sept. 30, Oct. 1
Teeswater	Oct. 1 & 2
Thamesville	Oct. 1 & 2

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FENCE

Does all you could wish for a poultry fence and more. Built close enough to keep chickens in and strong enough to keep cattle out. Even small chicks cannot get between the close mesh of lateral and vertical wires. The heavy, hard steel top and bottom wires together with intermediate laterals, will take care of a carelessly backed wagon, or an unruly animal and spring back into shape immediately. The wires are securely held together at every intersection by the Peerless Lock. This is not a netting but a real fence—built in line with our usual good standard of excellence.

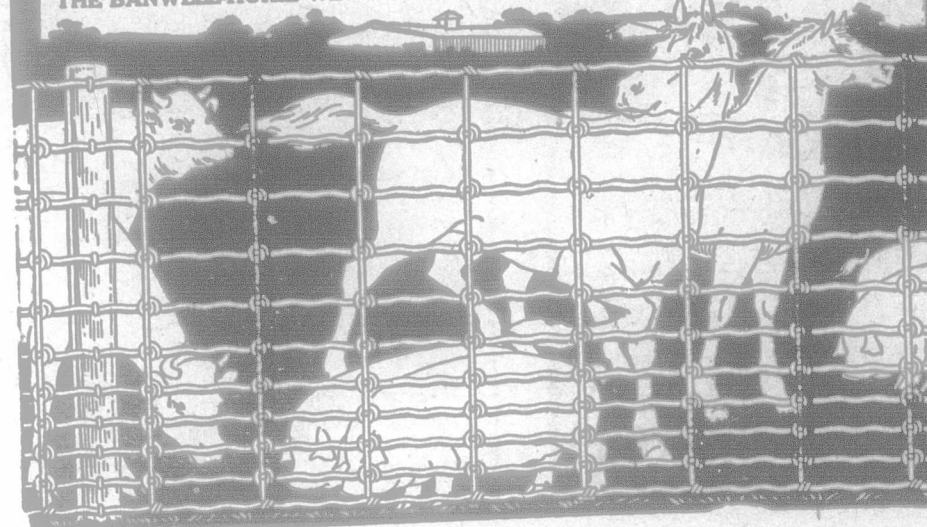
Peerless Perfection Field Fence is Strong—Yet Springy as a Bed Spring. Animals can't break through it no matter how hard their attacks. It simply can't be broken. Just springs back in shape like a bed spring. It's made of heavy Open Hearth steel galvanized wire with all the impurities taken out and all the strength and toughness left in. Will not corrode or rust. Top and bottom wires are extra heavy. Will not sag. Requires less posts than ordinary fence. Absolutely guaranteed.

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Send for Literature and address of nearest agent. We also make a complete line of farm and ornamental fencing. Agents wanted in unassigned territory.

THE BANWELL-HOXIE WIRE FENCE CO., Ltd., Winnipeg, Man., Hamilton, Ont.



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Thessalon	Oct. 1
Thorndale	Sept. 23 & 24
Thorold	Sept. 16 & 17
Tillsonburg	Sept. 16 & 17
Tiverton	Oct. 1
Toronto (C. N. E.)	Aug. 24-Sept. 9
Tweed	Oct. 3 & 4
Udora	Oct. 1
Underwood	Oct. 8
Utterson	Oct. 1 & 2
Verner	Sept. 24 & 25
Wallaceburg	Oct. 1 & 2
Wallacetown	Sept. 19 & 20
Walter's Falls	Sept. 24 & 25
Warkworth	Oct. 3 & 4
Warren	Sept. 17 & 18
Waterdown	Oct. 1
Waterford	Sept. 27
Watford	Oct. 2 & 3
Welland	Sept. 30, Oct. 2
Wellandport	Sept. 26 & 27
Wellesley	Sept. 10 & 11
Weston	Sept. 13 & 14
Wheatley	Sept. 30, Oct. 1
Warton	Sept. 24 & 25
Wilkesport	Sept. 26
Williamstown	Sept. 19 & 20
Windham	Oct. 1
Windsor	Sept. 23-26
Wingham	Oct. 8 & 9
Wolfe Island	Sept. 17 & 18
Woodbridge	Thanksgiving Day
Woodstock	Sept. 18-20
Woodville	Sept. 12 & 13
Wooler	Sept. 6
Wyoming	Oct. 10 & 11
Zurich	Sept. 18 & 19

The Water Cure.—A Swedish farmer, who lived on his wheat farm in Minnesota, was taken ill and his wife telephoned the doctor.

"If you have a thermometer," answered the physician, "take his temperature. I will be out and see him presently."

An hour or so later when the doctor drove up, the woman met him at the door.

"How is he?" asked the doctor.

"Vell," said she, "I bane put the barometer on him like you tell me, and it say 'Very dry,' so I give him a pitcher of water to drink, and now he ban gone back to work."

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Many farms in Ontario have electric current. Many others could have it. Where electric current is available, the washing problem is easy to solve. The

SEAFOAM

Electric Washer and Wringer

does more work than a woman could do, does it better and does it more quickly. In the long run, the SEAFOAM does it cheaper too, because it saves time, health and doctors' bills.

If electric power is not available, there are other washers in the Dowswell line that are operated by hand, foot, gasoline or wind engine power, each of them saves time and does away with washing drudgery.

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CANADIAN NORTHERN RAILWAY

Gossip.

The Riverside Herd.

While visiting a few of the stock farms in Haldimand County recently a representative of this paper had the pleasure of inspecting the splendid Riverside herd of pure-bred Holsteins owned by J. W. Richardson of Caledonia, and while many similar visits have been made to "Riverside" in the past we never remember a time when the prospects here were brighter. The herd as a whole may have in other years appeared in a little better fit but as we saw them the young stock were quite equal to the best we have ever seen on the farm and were far more numerous than at any time since the foundation of the herd. The latter is also particularly true when referring to the young bulls Mr. Richardson now has in the stables; some half dozen young nine-months bulls, any one of which is strong enough in either individuality or breeding to be worthy of a place at the top of most herds. There is, for instance, bulls from such females as *Jemima Johanna Wayne*, a 32.32-lb. cow with over 100 lbs. of milk for one day, *Toitilla Echo De Kol 7th*, a 29.14-lb. cow, *Toitilla Sarcastic Rue*, a 28.88-lb. daughter of *Johanna Rue's 4th Lad*, etc., while others are out of tested daughters of the noted sire, *King Johanna Pontiac Korndyke*, whose daughters are fast coming to the fore in the Record of Performance test reports. Each of these youngsters are well worth the remembrance of prospective purchasers. Among others, Mr. Richardson reports recent sales of five females to M. E. Leaky of Peterboro; two more to F. Henderson, Listowel, and one young bull to Geo. E. Wood of Cainsville. The latter was a son of *Aaggie Toitilla* another 30.49 lb. "Riverside" matron.

Oxford County Holsteins.

While visiting the Oxford County District a few days ago we were fortunate in calling at the farm of T. W. McQueen of Tillsonburg, just after he had purchased for his coming herd sire a half interest in a young 34.32 lb. bred son of *May Echo Sylvia's son Avondale Pontiac Echo*. So far as the sire of the calf is concerned there is very little more that need be said. All who are at all conversant with the breed know that his dam holds the world's milk record from one to one hundred days and that she is also the dam of the great \$106,000 calf that sold at Millwaukee in June. On his dam's side, however, he also has many advantages as she is not only a 34.32-lb. cow but is a wonderful individual as well. Her highest day's milk was 102.6 lbs., while her total for the 7 days was 693 lbs. The calf was bred by A. E. Hulet of Norwich who retains a half interest in him. He will be used jointly in the two herds. In females Mr. McQueen is getting down practically to the descendants of the two sires, *Lewis Prilly Rouble Hartog* and *Baron Colantha Fayne*. The former has an international reputation as one of the breed's greatest sires, while the latter during his service in the herd proved himself well worthy of being a son of old *Queen Butter Baroness*, Canada's first 33-lb. cow. There are eleven daughters of the Hartog sire among the mature breeding cows, and while none have sensational records the average is good with nineteen and twenty pound two-year-olds being several in number. From these daughters of the older sire there are quite a number of young cows that are sired by the *Butter Baron* bull, and with three exceptions all are now in calf to the young bull, *Lyons Hengerveld Champion*, the young son of *Baroness Madoline* that Mr. McQueen had under lease for the past season. The present offering at the farm includes a small number of 8 and 10 months bulls all of which are sired by *Baron Colantha Fayne* and from the tested daughters of *Lewis Prilly Rouble Hartog*. Those who are in search of young sires will find these youngsters well worthy of consideration. Address T. W. McQueen, Tillsonburg, Ont.

Natural Philosopher.—Examiner in Physics.—"What happens when a light falls into the water at an angle of forty-five degrees?"
Student.—"It goes out."

What the Dairy Breeds Have Done in 1918.

Continued from page 1399.

Lassie) with a record of 16,721 lbs. milk, 682.21 lbs. fat, test 4.08%. Her cumulative average for three periods is 12,418 lbs. milk, 517.63 lbs. fat, test 4.16%. Another record of efficiency is that of *Willowmoor Soncy Girl*, that has just completed a record of 16,707 lbs. milk, 709.60 lbs. fat, thereby having qualified for her fourth entry in the Advanced Registry with an average production of 12,826 lbs. milk, 535.83 lbs. fat. In each instance she calved within 15 months after beginning the test. It is also worthy of note that *Finlayston*, hailed as the greatest of Ayrshire sires, died during the year. *Finlayston* heads the list of Advanced Registry sires with 46 A. R. daughters, having a total of 90 entries averaging 10,448 lbs. milk, 429.91 lbs. fat, test 4.11%.

The Advanced Registry requirements have undergone considerable revision, since, in addition to maintaining the double standard for milk and fat, the fat requirements have been raised to the same level as the other breeds. A junior two-year-old must produce a minimum of 6,000 lbs. of milk and 250.5 lbs. fat, while the minimum for mature cows is 9,000 lbs. milk and 360 lbs. fat. Late registration has been penalized by a fee of \$10 for all animals over two years of age, and the transfer fee has been raised from 25c. to \$1.

FOREIGN.—Ayrshires are said to be much in demand in Ireland and at least one importation of 35 head has been made from Scotland. South Africa has also been importing Ayrshires of good quality. A Queensland Australian Record was made by the Ayrshire cow *Pretty Maid of Haremar*, with 14,770 lbs. milk, 891 lbs. butter in 247 days.

Guernseys.

UNITED STATES.—Guernsey progress in the United States has been on a par with that of the other dairy breeds. Not only have there been numerous changes in the leaders in both the double and single letter classes, but there have been some very creditable records in addition and some excellent sales made as well. Two cows producing over 1,000 pounds of butter-fat have entered the ranks of the mature class. *Nella Jay 4th*, a Pennsylvania cow, produced 20,709.9 lbs. milk and 1,019.25 lbs. butter-fat acquiring second place for the breed in milk production and third place for butter-fat. *Langwater Nancy*, by yielding 18,783.5 lbs. milk and 1,011.66 lbs. fat, arrived at fourth place for butter-fat and seventh place for milk. A new champion in class G for cows from two to two-and-a-half years has arisen in *Brookmead's Dorothy*, displacing *Cherry of Edgewater* (who has held the record for three years) with a record of 14,179.4 lbs. milk and 742.06 lbs. fat. In the double letter, or "Roll of Honor" classes, where cows qualifying must complete their regular Advanced Registry requirements and, in addition, carry a calf at least 265 days of the test period, several new leaders have appeared. The "Roll of Honor" was established no earlier than a year ago but already there have been 479 double letter records recorded. Champion for the breed in this new performance test is *Linden Girl of Harbor Hill 3rd*, leader in class CC, who recently completed a record of 15,032.9 lbs. milk and 785.89 lbs. fat. In others of the double letter classes, namely classes BB, EE and FF, new leaders have appeared since January 1st, 1918. Prominent among these is *Jean du Luth Coronet*, recently made leader in class EE by her production of 12,603.9 lbs. milk and 580.61 lbs. fat.

Price records have also been broken at Guernsey cattle sales, prominent among these being the combination sale following the annual convention of the American Guernsey Cattle Club in May. At this sale 67 Guernseys brought \$102,925 and were thereby distributed among 36 breeders located in 27 states of the Union. The high-priced cow was *Langwater Luxury*, sold for \$5,300. Two other cows sold for \$5,000 each, and the previous high-water bull price of \$8,000 was smashed when *Don Diavolo of Linda Vista* sold for \$10,000. A short time after this record was broken by the private sale of *Percy's Golden May Secret* for \$10,100.

ENGLAND.—High averages at sales of Guernseys in England have been the *Barlow* sale of 21 head for an average of £70, and the *Plumpton* sale of 22 head for an average of £80.

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From Field to Silo



Corn will soon be Right for Cutting — Will you be ready?

A delay of a few days may result in your Silo being filled with tough, woody material instead of the palatable and nutritious silage which adds so much to the Winter ration of your cattle.

The Massey-Harris Corn Binder

Cuts tall or short Corn, standing or down, and binds it securely into neat, easily-handled sheaves.

A Strong, Durable, Satisfactory Machine; Light, Direct Draft; Inclined Elevation; Perfect Balance; Works well on the level or on a hillside.

The Massey-Harris Ensilage Cutter

Has great capacity and is adjustable to cut from 1/4 to 1 1/2 inch long.

Blower has ample power to elevate the Ensilage.

The Travelling Table and Spring-Controlled Feed Rolls provide a Positive Feed, and, as the Rolls may be instantly stopped or reversed, it is the safest Cutter you can use.

Furnished with a Transport Truck when ordered.

The Massey-Harris Tractor

A Reliable and Economical source of power for operating your Ensilage Cutter or any Machine requiring up to 25 Horse-Power on the Belt, or 12 on the Draw Bar.

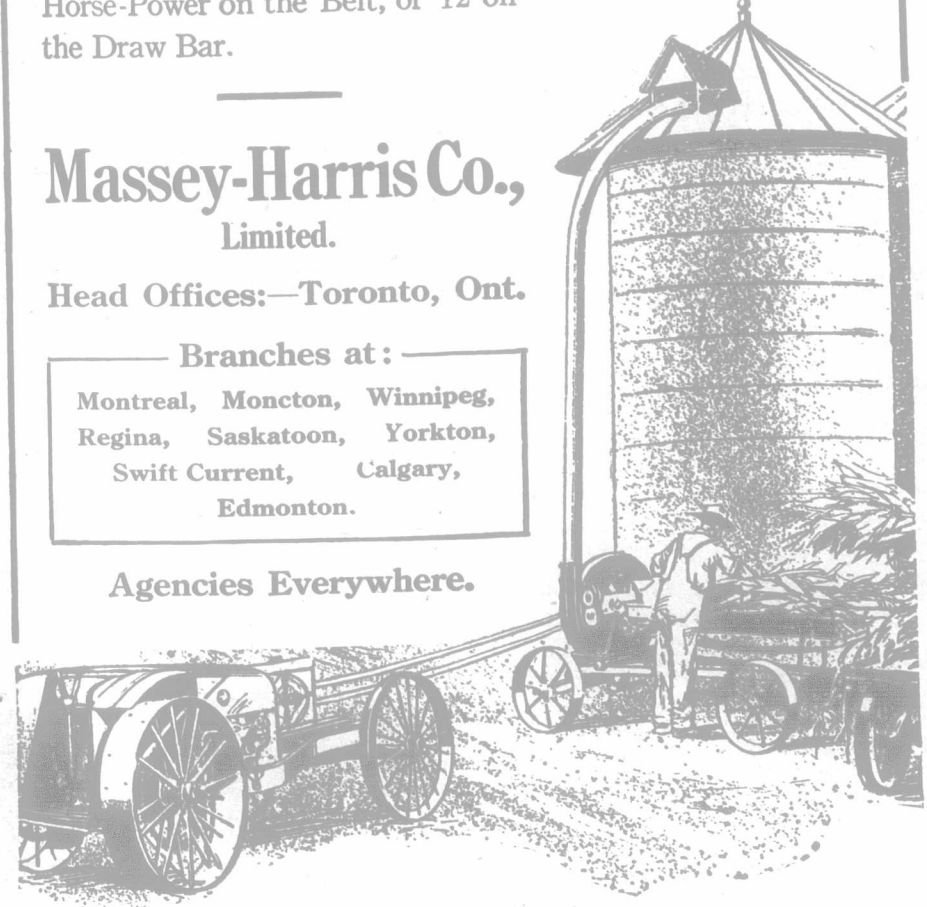
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Agencies Everywhere.



Rock These Grates Gently

The fire-box is the heart of the range, but the grates are the heart valves of the fire-box.

If the grates fail, the fire-box cannot make good.

The Pandora grate has three bars and each bar has three working sides which gives it three times the life of an ordinary grate.

They are fitted together like the parts of a good machine.

That is why they work with minimum effort—a gentle pressure.

And you rock them gently once to clear your fire of ashes. There is no racking "shaking" with Pandora grates—just one gentle rock.

"The Magic of the Pandora"—Booklet Free

This is one of the many features of the Pandora Range described in "The Magic of the Pandora," a little booklet full of information that every woman will want before she buys a range. Write for it to the nearest McClary Branch.

McClary's Pandora Range

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TURNER Simplicity

—the safe, sure TRACTOR "buy"

Why take any chances 'n buying a tractor? Farmers' actual experience has proved certain tractor principles to be right. Turner's 17 years engine experience has taken those practical tested features and standardized them in a tractor that

meets the needs of every farm

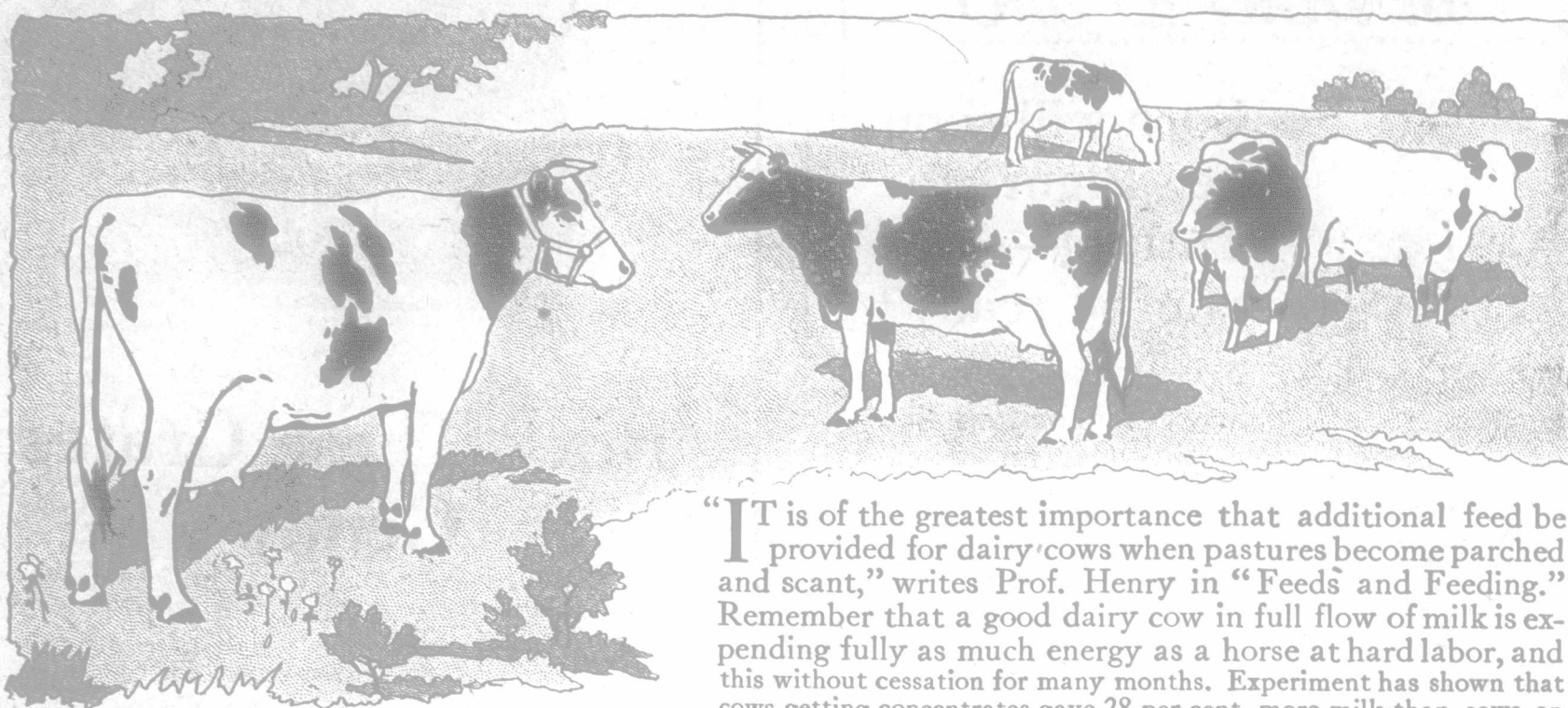
12 draw bar h.p., pulls 3, 12 inch plows under usual conditions. Over 20 belt h.p., ample for individual threshing, silo filling, etc., yet economical for small jobs. Quality built—great strength, light weight. Waukesha 4 cyl. motor, Hyatt roller bearings throughout, Perfex Radiator, Dixie Magneto, Foot-Strite transmission and other standard quality parts.

Free Folder
Illustrates and describes our Tractor fully. Write:

Maxwells, Ltd.
St. Mary's, Ont.

Uses Kerosene

Heavy Flow of Milk Over Long Periods



"It is of the greatest importance that additional feed be provided for dairy cows when pastures become parched and scant," writes Prof. Henry in "Feeds and Feeding." Remember that a good dairy cow in full flow of milk is expending fully as much energy as a horse at hard labor, and this without cessation for many months. Experiment has shown that cows getting concentrates gave 28 per cent. more milk than cows on pasture alone. Feeding of a balanced ration pays handsomely.

Monarch Dairy Feed

is composed of oil cake meal, cottonseed meal along with such bulky feeds as bran, corn feed and barley feed. The oil cake meal has a rich store of crude protein and slightly laxative oil which accounts for the sleek coats of cows fed with Monarch Dairy Feed. Cottonseed meal is also a high protein feed, but is greatly improved when mixed in proper proportion with other feeds. In most cases cottonseed meal is the cheapest source of protein. Cottonseed meal is opposite in its effect to oil cake meal in that it is rather constipating and makes a hard butter fat. A combination of the two therefore gives ideal

results. In feeding finely ground protein feeds, such as these, it is necessary to add bulk and to lighten them up for better digestion. For this purpose we use bran, corn feed and barley feed. These ingredients also make the feed more palatable.

Monarch Dairy Feed while being very rich, may be safely fed alone. Guaranteed analysis, protein 20%, fat 4%.

Monarch Dairy Feed supplies all the requirements of the cow, for concentrates, to give the highest production of milk.

Give Monarch Dairy Feed a trial. Order a ton from your dealer; if he does not handle Monarch Feeds, write us direct giving dealer's name and we will tell you how to get Monarch.

Monarch Hog Feed

A special feed that meets all the requirements of the brood sow and the growing pig; consists principally of corn meal feed, shorts and digester tankage. Guaranteed analysis, Protein 15%, Fat 4%.

Sampson Feed

Meets the demand for a general purpose feed for both cattle and hogs. It is sold at somewhat lower price than either Monarch Dairy Feed or Monarch Hog Feed. Guaranteed analysis, Protein 10%, Fat 4%.

The Campbell Flour Mills Company, Limited, West Toronto

Gossip.

Shorthorn Exhibit From Irvinedale Fair.

Less than a year ago there appeared in these columns quite a lengthy description regarding the breeding operations in the Irvinedale herd of pure-bred Shorthorns owned by J. Watt & Son of Elora, Ont. Visiting the herd recently we found very little change in mature breeding stock over that of a year ago. Marquis Supreme by Gainford Marquis (imp.) and dam by Whitehall Sultan is still the chief sire in service and his three seven months sons that are now listed for sale are as choice a lot as the Watt herd has put out in years. Quality in a marked degree is also evidenced all the way down the line of females. Many of these will be seen out at the exhibitions this month

and that they will not only strengthen the shows but break often into the money is a certainty. Without going into detail regarding these it will be sufficient to say that five of the senior yearlings that will be out are sired either by Gainford Marquis (imp.) or his son Gainford Select. Three two-year heifers include an Archer's Hope, a Kilblean Beauty by Trout Creek Wonder, and a straight bred "Clipper". The latter is not in high condition and may not be shown, but as regards both the yearlings and two-year-olds their quality should show to advantage in the ring. There is also one junior yearling that is got by the herd sire that should strengthen the exhibit considerably and taken in with the other youngsters that are got by this sire and are in the herd at present bespeaks much as to the worth of Gainford Supreme as a herd sire.

Shorthorns and Leicesters at Willowbanks.

There is perhaps no place in Canada where admirers of the Shorthorn breed can spend a more pleasant day than at Willowbanks Farm, owned by Jas. Douglas of Caledonia, Ont. All who are at all familiar with the better herds in the Dominion always expect to find not only a herd of big, thick, well-fed lot of breeding cows of the most fashionable pedigrees but they also count on Mr. Douglas having a line-up in calves that would not look out of place if lined up in force at our largest exhibitions. They seem to have learned to expect this and speaking of this season's showing after inspecting them at the farm recently the Advocate representative has no hesitation

in saying that once more there is no cause for regrets. The half dozen young bulls now nearing serviceable age which Douglas has listed, are all got by the noted sire and show bull, Browndale that is a Cruickshank Mina-bred grandson of the great Whitehall Sultan, and the chief sire in service at Willowbanks for the past three seasons. The younger females are also all sired by him and with the bulls they make up one of the strongest aggregations for the get of one sire that we have seen in years. In Leicesters the usual selection has lately been strengthened by the recent importation of 16 shearing ewes of Nesbethill breeding. He also has a nice selection of both imported and home-bred rams which should place him in a splendid position in supplying the coming fall trade.



Stacking Timothy Hay on Farm of R. F. Truss, Baptiste Lake District, Athabasca.

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NOWHERE is there found such free and open opportunities for the aggressive farmer and stockman as along the immensely fertile lands served by the Canadian Northern in Western Canada. Year by year the records of crop and stock shipments climb and multiply in value, and output beyond the dreams of by-gone farmers. Figures speak plainly and comparisons are interesting:

Live Stock Handled		1917	1916	Increase
Cattle (carloads)		5,421	2,900	87%
Hogs	"	2,274	1,768	29%
Sheep	"	261	76	243%
Mixed Stock	"	3,407	2,501	36%
Dairy and Dressed Meat Shipments				
Butter (pounds)		8,146,000	6,826,000	19%
Cheese	"	1,072,000	780,000	37%
Eggs	"	5,980,000	5,682,000	5%
Dressed Meats	"	9,108,000	7,866,000	16%
Poultry	"	312,000	282,000	11%

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The Scottish Stallion Hiring System.

Continued from page 1390.

he died he was hired for seasons ahead—
e. g., by July 1914 he had been hired for
1915, 1916 and 1917, and as we have
said made money for his owners, the
breeders who used him, the societies
which hired him, and the dealers who
purchased his produce for commercial
purposes.

Only one thing remains and that is to
give some indication of the terms upon
which horses are hired by such societies
as have been described. In the sale
catalogue of the Montgomery horses al-
ready referred to, authentic contracts
are given and on these the horses were
sold by public auction. Royal Exchange
18896, hired for 1918 at £2 10s. at service,
and £3 additional if mare proves in foal,
sold for £178 10s., a dead bargain; High
Merit 14677, hired for 1918 at £2 10 at
service and £3 10s. additional when
mare proves in foal, sold for £441; British
Stamp 17148 was let for 1918 to the
Northumberland Horse Breeding Society
for the lump sum of £290 payable by the
Society to the owner at the end of the
season. This is a form of engagement
somewhat common in England but almost
unknown in Scotland. The society takes
the whole risk. British Stamp sold
subject to this agreement, made £472 10s.
Coronation 15780 hired for 1918 for
£100 premium, with £2 each mare pay-
able at service plus £4 additional when
the mare proves in foal, and hired for
1919 at £3 payable at service, plus £5
when the mare proves in foal, was sold
subject to fulfilment of both contracts
for £1071. Under the contract for 1918
Coronation should earn about £600, and
taking the same number of mares in
1919, that is 100, he should earn as nearly
as may be the same money. For 1918 he is
hired by the Marquis of Bute's tenantry
in Ayrshire, and the landlord gives the
£100 premium thus relieving his tenantry
of a certain proportion of the service
money. Lincluden 18421 was hired for
1918 at £2 10s., payable at service with

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£3 additional if mare proves in foal. He
was sold subject to this contract, for
£630. Merlin 16716, a son of Everlast-
ing, with a prize record, was hired for 1918
at £3 payable at service and £5 additional
if the mare proved in foal, and for 1919
at £3 10s. at service and £5 10s. additional
if the mare proves in foal. He was
sold for £1417 10s. Baron Derby 16458
was hired for 1918 at £2 10s. at service
with £3 10s. when the mare proves in
foal. He was sold for £367 10s. Drexel
16548 was hired for 1918 at £3 10s. pay-
able at service, and £5 10s. additional
when the mare proves in foal, and for
1919 at £4 at service and £5 additional
when the mare proves in foal. He was
sold for £1627 10s. Dunure Diamond
15806 was hired for 1918 at £3 payable at
service and £3 additional when the mare
proves in foal. He was sold for £430 10s.
Baronet of Ballindalloch 17101 was hired
for 1918 at £3 at service with £3 ad-
ditional when the mare proves in foal, and
was sold for £682 10s. Baron Dollar
15133 was hired for £3 at service and £3
when the mare proves in foal and sold
for £451 10s. Scottish Crest 13182, hired
for 1918 at a premium of £150 with
service fee £1 per mare, and £2 additional
when mare proves, in foal, sold to the
Society which had hired him (Nor-
thumberland) for £425 5s. He is fourteen
years of age. Suppose he serves 100
mares his price is a shade more than one
year's purchase. Morning Pride 17396,
hired for 1918 at £50 premium, with £2
at service and £3 additional if mare
proves in foal, sold for £525. Iron
Duke 13535, hired for 1918 at £50 pre-
mium, with \$1 10s. at service and £2
additional when mare proves in foal,
sold for £210. Imperial, a young un-
tried horse, rising three years old, hired
for 1918 at £3 at service and £5 additional
if mare proves in foal, and for 1919 at
£4 at service and £5 additional if mare
proves in foal was sold subject to both
contracts for £1470. Magnetism an-
other horse, of the same age, hired for
1918 at £3 at service and £4 additional
if mare proves in foal, sold for £829 10s.
The wages paid to the grooms of these
horses in so far as such engagements
formed part of the contract, were in
every case £2 per week for the season.

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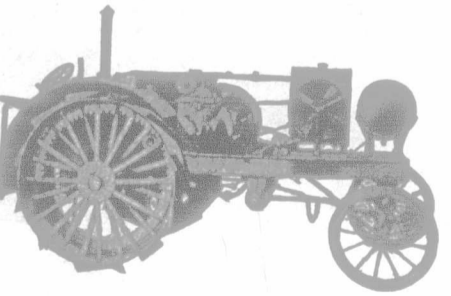


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Gossip.

R. O. P. Shorthorns in the Burnfoot Herd.

The Burnfoot herd of milking Shorthorns owned by S. A. Moore of Caledonia, Ontario, needs but very little introduction to readers of these columns. Those also, who have followed at all closely the reports of the Record of Performance tests as they are published from time to time should by this time be quite familiar with even the names of many of the more mature matrons in Mr. Moore's herd. Dairymaid, the former 13,523 lb. Canadian champion, Jean's Lassie the 8,939 lb. two-year-old; the 10,486 lb. Lavendar-bred Gertrude; the 10,681-lb. Burnfoot Lady and Jean's Masie the 8,000-lb. three-year-old, are records and individuals that should be well remembered by most breeders of good Shorthorns throughout Canada. All are still in the Burnfoot herd as are also many of their descendants. This, no doubt, will be sufficient to refresh the minds of many regarding Mr. Moore's breeding females, but we would like also to mention in a line or two a few particulars regarding the herd sires that are at present in use in the herd. Burnfoot Chieftain, the senior sire and, by the way, the sire of most of the young bulls now catalogued for sale, is a son of the first mentioned above and is perhaps one of the best individual dairy bred bulls any country can boast of to-day. On his sire's side he is a grandson of the great Scottish Pride, while Dairymaid, his dam traces back to the famous old Beauty (imp.). The young bulls from this sire seen at the farm recently by an Advocate representative were a most promising lot throughout. One worthy of special mention is a roan 8-months calf, a son of the 10,681-lb. Burnfoot Lady and one of the most promising youngsters ever dropped on the farm. He should go to a strong herd. Following Burnfoot Chieftain as the junior sire is the young bull, Lloyd-George, a son of the 11,498-lb. yearly record cow, Bessie of Willowgrove which makes the four nearest dams of Mr. Moore's junior sire average 11,575 lbs. of milk in one year.

The Walnut Grove Herd.

Shorthorn breeders will be interested in once more seeing the Walnut Grove herd of pure-bred Shorthorns represented in these columns. Duncan Brown senior member of the firm of Brown & Sons has been well known among our readers for over a quarter of a century, but since his public sale late in 1915 when he disposed of the major part of the herd, the name of Brown & Sons of Walnut Grove has been almost absent from our columns. That they were not "loafing" all this time, however, was quite apparent from observations gained on a visit to the farm by a representative of this paper recently, when one of the strongest showings came out before us in the way of well fitted Shorthorns that we have ever seen on the farm. Messrs. Brown & Sons present offering includes a score or more of young things all of their own breeding which are now in show condition. These are sired by Trout Creek Wonder, the past herd sire or Gainford Eclipse the present sire. The former is a straight bred "Lavendar" and has sired many a prize winner in the past, while the latter is one of the very best individual sons of the great Gainford Marquis (imp.). That he has been wisely selected to follow the former sire is plainly evident by the many young things that came out before us. An 8-months bull of this cross, being out of a daughter of Trout Creek Wonder and sired by "Gainford" is one of the strongest calves seen this year. He is only one of several priced for sale and with their quality and breeding they should not remain long. All are from Messrs. Brown's own breeding females which in every case were the best breeding propositions the herd contained and were retained at the time of the sale. Included in these females are representatives of nearly all of the more noted families and those in search of the best should communicate with them at once. Another speciality of the farm are pure-bred Oxford Down sheep of which there is a good selection at all times. All correspondence should be addressed to Brown & Sons, Shedden, Ont.

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Included in the offering will be a number of richly-bred females, due to freshen this fall, others bred to some of the outstanding sires of the breed, a few good heifers and some nice young bulls. When you see the catalogue you will agree with us that their breeding cannot be improved upon.

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Remarkable Prices for British Pedigreed Stock.

EDITOR "THE FARMER'S ADVOCATE":

Wonders still go on happening in British (or should I not say English?) pedigreed stock breeding. The latest breeds to fall victims to records—world's records in some cases—are three breeds which belong to East Anglia—to wit, the Suffolk horse, the Red Polled cattle, and the Large Black pig, a variety of porcine aboriginal to Cornwall and the West of England, but developed to considerable proportions in the East of England. The occasion for this latest burst of records in England was the dispersal of Kenneth M. Clark's Sudbourne, Suffolk, studs and herds. Since 1904, at Sudbourne, he has raised the best and his Suffolk stud was the last word in what an accumulation of peerless, almost priceless, prize-winning coterie of pedigreed stock should be. All told 700 prizes and honors have been won by the stud and the Red Polls have swept the decks at London Dairy Show, one cow, Minnie, being the first Red Poll to make the highest points in the milking trials at the London Exhibition. That year she beat all breeds and she gave 15,046½ pounds of milk in her lactation. Her two days' yields in London, however, were: mornings, 72 lbs. 6 oz.; evenings, 64 lbs. 6 oz. Minnie as now could only command 40 guineas, but her bull calf, by credit, realized 215 guineas and he was only three months old. The top price in this sale was 430 guineas paid by A. F. Bowen for Adela, calved 1913, and by Acton Crowfoot. Adela has given nearly 12,000 pounds of milk in a year. Bowen bought three of Acton Crowfoot's cows and they cost him nearly £1,000 for the deal. A young bull also by credit made 280 guineas. Sir Merrik Burrell paid 265 guineas for the young cow Minerva, which gave 8,000 lbs. of milk with her first calf. The 120 head of Red Polls "pulled" 11,210 guineas for the lucky owner, or an average of £117 12s. 3d. each for the females, and £103 9s. 9d. for the males.

Genuine world's records were here established for pigs, i. e., of the Large Black breed. There were sold at Clark's home, 144 lots of pigs—big and little—for an average of £42 15s. each. Let it be said in parenthesis that 55 animals above six months old averaged £73 15s. apiece, and that the top price was 455 guineas paid by Woodcock, of Horsforth, Leeds, for the sow Sudbourne Senora 1st., farrowed January 1, 1916. Her dam made 300 guineas and she is just two years older than her world's record breaking daughter. The best boar, Sudbourne Laird, farrowed January 2, 1916, went for 315 guineas to Woodcock, who for a sow and boar thus paid £808 10s. The stock in the sale which descended from the old sow Sadie made remarkable figures, some 41 head of Sadie Second's offspring realizing £3,125 6s. 6d., or £76 4s. 6d. apiece. One buyer, to wit, Oscar Grey, was lucky enough to "corner" nearly all these Sadies, whose aboriginal ancestress was a black sow which K. M. Clark bought cheaply from a tenant farmer on his estate some fifteen years ago.

But the real fun came when the Suffolk Punches were sold. There never were so many people seen at a horse sale in England since Lord Rothschild's memorable sale at Tring. Alfred T. Preston, of Ipswich, the official auctioneer of the Suffolk Horse Society, wielded the hammer and did it to some tune too. The 98 horses he sold all told aggregated £33,180, or an average of £338 12s. apiece. Top prices of the day were 2,000 guineas given for the three-year-old filly, Sudbourne Moonlight, a daughter of Sudbourne Peter, and 2,000 guineas paid for the stallion Sudbourne Beau Brocade, foaled in 1913, and sired by Sudbourne Beau Monde, out of Sudbourne Tilly, which was by Sudbourne Arabi, the son of Arabelle. Both these animals were bought by J. Watson, a director of the new Olympia Pure Stock Farm's Company, Selby, Yorkshire. These people are an enterprising lot and are carrying on pedigreed stock breeding on commercial lines—as a business company and an innovation in staid old England. Mr. Watson gave 1,000 guineas for the three-year-old filly, Sudbourne Armada, also by Sudbourne Peter, but out of the great mare Arabelle herself. Among brood mares Watson paid 750 guineas for Model (by Arabi); 600 guineas for Bloom (by

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Where size, bone quality and rich breeding count. Headed by Clayton Donald (own brother to Perfection Fairfax) and High Ideal, last year's Junior Champion. For Sale—choice young cows, some with calves at foot and others in calf. Also some good two-year-old heifers in calf to above sires and open; and a few choice bull calves, and one good farmer's bull, 15 months a tried breeder.

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Young bulls by Golden Duke (Imp.), whose dam has an official record of 12,395 lbs. of milk and 560 lbs. of butterfat in one year.

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Imported strains; choicely-bred young boars fit for service, and sows in pig. Can supply pairs not akin. Herd boars: Successors Double 2nd and Kee-waydin Credit Epochal, representing two great distinct blood lines.

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from R.O.P. champions and dams and sisters of R.O.P. champions, sired by Canary Hartog and some by a son of Queen Butter Baronesse, the dam of two champions in 7- and 30-day tests. We invite inspection and will meet prospective buyers at G.T.R. or C.P.R. stations—Woodstock or Ingersoll, Walburn Rivers and Sons, (Phone 343 L. Ingersoll, Independent Line) R. R. 5, Ingersoll, Ont.

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Ten bulls, from 8 to 20 months of age, of the good kind. Also must sell about 25 females before winter. They are the prolific kind and all registered and priced at about half their value to move them. Crown Jewel 42nd. still heads this herd. JOHN ELDER, HENSALL, ONTARIO.

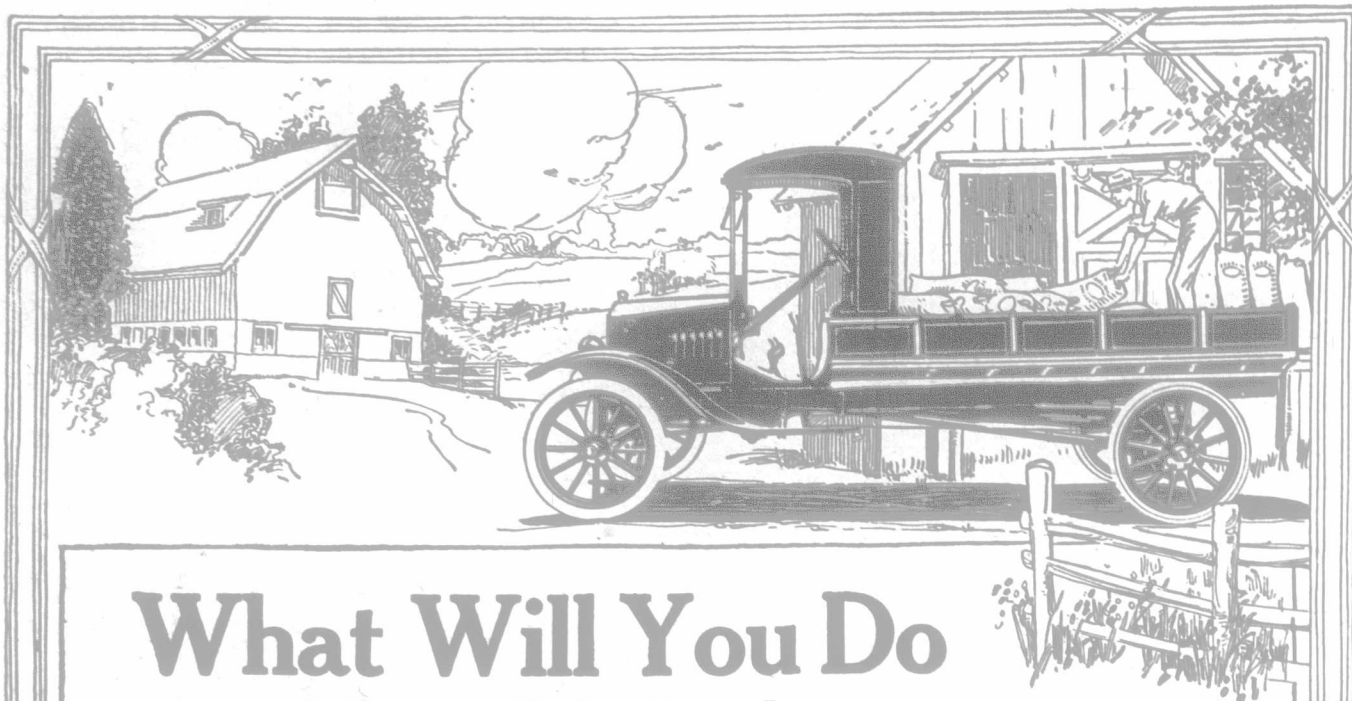
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Five Bulls For Sale. One roan senior yearling; one choice twelve months white calf; by Right Sort (Imp.); one select, dark roan, ten months calf; one roan yearling, by Raphael (Imp.); one roan red yearling, for grade herd. Farm ¼ mile from Burlington Jct., G. T. R.
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Dual-Purpose Shorthorns—Herd headed by Burnfoot Champion =106945=. His dam holds Canadian two-year-old championship, and his sire's dam was champion mature cow of Canada for three years. Cows with calf at foot for sale. They are of same family as Buttercup =111900=, which holds the R.O.P. record in 3-year-old class.
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FARM help is scarce, but this condition can be relieved to a marked degree by using machines that accomplish more work in a given time with less man power.

Why should the farmer cling to horses—a slow, expensive means of power—when every other business is adopting the truck and thereby reducing the cost of hauling, speeding up deliveries, and saving for human needs the food that the horses would otherwise consume?

The motor driven truck can work constantly at maximum load under the burning summer sun, or in the coldest weather. Unlike the horse it needs no rests while working, it eats only while in actual use, and when the day's work is done it requires very little attention, and leaves you free for other "Chores" about the place. Then, it can be housed in one-quarter the space of the horses, wagon and harness it replaces.

It is a mistaken idea that a truck is useful only for driving upon paved roads. The Ford can be driven all over the farm, and used for hauling grain, potatoes, fruit, roots, fertilizer, wood, stock, milk or any other product. The speed it travels, the time it saves, and its low upkeep cost appeal very strongly to all users of the Ford Truck. If you need help, order your Ford One Ton Truck today.

All prices subject to war tax charges, except trucks and chassis

Ford

THE UNIVERSAL CAR

One-Ton Truck \$750

Runabout - - 660

Touring - - - 690

Coupe - - - 875

Sedan - - - 1075

Chassis - - - 625

F. O. B. Ford, Ont.

**Ford Motor Company of Canada,
Limited**

Ford - - - Ontario

SUNNY ACRES' Aberdeen - Angus

Present offering: 15 young bulls, 5 to 10 months; also 6 breeding females.

G. C. CHANNON

P. O. and 'Phone - - - Oakwood, Ont.
Railway connections: Lindsay, C.P.R. and G.T.R.

Alloway Lodge Stock Farm Angus—Southdowns—Collies

SHOW FLOCKS

Rams and ewes. Heifers in calf to Queen's Edward, 1st prize, Indiana State Fair.

Robt. McEwen, R.R. 4, London, Ont.

ABERDEEN-ANGUS MEADOWVALE FARM, Forest, Ont. ALONZO MATTHEWS H. FRALEIGH Manager Proprietor

BEAVER HILL

Aberdeen-Angus MALES AND FEMALES ALEX McKINNEY, R. R. No. 1, ERIN, ONT.

When writing please mention "Advocate"

BLAIRGOWRIE SHORTHORNS

I have females all ages and bulls of serviceable age. Worth while to come and see, or write
JOHN MILLER Myrtle Station, C.P.R., G.T.R. ASHBURN, ONTARIO

MILKING SHORTHORNS

Herd headed by Dominator 10629; cows with records up to 11,000 pounds of milk in a year. Bulls ready for service for sale. Heifers and cows for inspection.
Weldwood Farm, Farmer's Advocate, London, Ontario.

Shorthorns

Herd headed by Pride of Escana, a great son of Right Sort. Several bulls and a few females with calves at foot for sale. Herd of over seventy head.

A. G. FARROW (between Toronto and Hamilton), Oakville, Ont.

SALEM SHORTHORNS

Herd headed by Gainford Marquis (Imp.), undefeated in England and Canada. Sire of the winning group at Canadian National, 1914, 1915, 1916. Can supply cattle, both sexes, at all times.
J. A. WATT, ELORA, ONTARIO

SPRUCE GLEN FARM

Herd headed by Nonpareil Ramsden=101081= and Royal Blood=77521=. At present we have nothing to sell but we have some very good ones coming on. **James McPherson & Sons, Dundalk, Ontario.**

Elm View Stock Farm—Scotch Shorthorns and Oxford Down Sheep—Present offering: Two-year-old stock bull, Early Prince 107659, straight-bred Rose Bud family, sired by Roan Prince 80859; 25 yearling and 2-year-old ewes; 10 1-year-old rams—a choice lot. Orders taken for ram and ewe lambs for later delivery; all bred from best foundations obtainable. Hold back nothing. Prices reasonable. Visit or write:
B. A. McKINNON, Hillsburg, Ont.

the same sire); 350 guineas for Daylight (by Dennington Cupbearer); 600 guineas for Tilly (by Arabi); 500 guineas for Becky (by Peter); 500 guineas for Shamrock (by Arabi); and good money for several foals. Other mares to make high prices were Sudbourne Beatrice (by Arabi) 900 guineas; Lark (by Arabi) 850 guineas; Bristby (by Arabi) 875 guineas; Marvel (by Arabi) 625 guineas, and Messina (by Arabi) 525 guineas. Among the younger stock, the Marquis of Graham who farms in Suffolk, gave 750 guineas for a two-year-old stallion called Artemus, and a son of Arabi. Yearling fillies made up to 380 guineas, and many were the 300 guineas planked down with avidity by excited buyers securing stock wherewith to commence new studs. This sale is bound to be of the greatest benefit to the Suffolk horse as a breed. It has too long been cribbed, cabined and confined to its own immediate area. It should now expand into something "national" rather than parochial as it has been in the past. It has a wonderful story behind it—a story of purity of breeding defined and in clear and distinct evidence. I reckon that Kenneth M. Clark realized £33,180 for his Suffolks, £6,156 for his Large Black pigs, and £11,770 10s. for his Red Poll cattle, or some £51,106 10s. for his stock. But then he is a rich man; yet it is good to have these rich men in pedigreed stock raising. It gives the industry strength and balance. I think, however, he will come back again, perhaps as a Shorthorn man.

Nearly every breed of pedigreed live stock in Great Britain has, so far as the 1918 season has gone, enjoyed a "record" price, and to reiterate them would be tiresome. We are already participating in the world's call for stock and there are still better days to come, if our heads don't get too big for our hats.

Farm working horses are making big money, to wit, \$768 at Crewe, and \$970 at Welshpool, where the Shire-bred stock always offered in that town retails readily at \$920 and roundabouts.

Ewes of the Hampshire Down breed are making \$20 apiece, i. e., culls. P. C. Tory got \$24 apiece for draft ewes he offered at Salisbury. Rams of this breed are letting at \$555 apiece, and making \$400 as sellers. South Devon breeding ewes have made \$27 apiece in the West. Gets offered in the public market place at Driffeld East, Yorkshire, have averaged \$105 apiece for a dozen head. H. M. the King is buying middle whites at \$250 apiece for boars.

The Aberdeen-Angus Cattle Society of Scotland has now 596 members, and a list of investments worth \$18,945.
ALBION.

Questions and Answers. Miscellaneous.

Millet and Orchard Grass.

1. Is millet a permanent plant?
2. What is the name of the enclosed grass? It grows in bunches. W. M.

Ans.—1. The millets are annual plants and must be seeded each year.

2. The portion of plant received at this office was a head of orchard grass, a perennial plant which produces a large amount of both early and late feed.

Re-arranging a Stable.

I am contemplating re-building a barn. The barn in question is 104 feet long and 30 feet wide. It has three stables crosswise of the barn. I wish to convert this into a modern barn, and have a stable on the whole of the ground floor. I want a turnip cellar and bull pen in one end and calf pens in the other. The balance I want arranged for two rows of cattle. Is the barn wide enough for this, and what arrangement would be the best?
A. C. T.

Ans.—Your barn is scarcely wide enough to permit of putting in two rows of cattle. You will not be able to get along with much less than five-foot passages behind the cattle—in fact, seven feet is preferable. Then, six feet is required for feed passage, five feet for each stall, twenty inches to two feet for each row of mangers, and fifteen to eighteen inches for gutter. With the least possible space advisable the stable should be 33 feet wide to permit of stabling two rows of cattle. You might have the rows of stanchions go crosswise instead of lengthwise of the stable and put in three rows of cattle, besides having box-stalls at each end.

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DOUGLAS EGYPTIAN LINIMENT

Sure Cure For
POISON IVY

For Sale
By All Dealers

DOUGLAS & COMPANY MFRS.
MONTREAL, CANADA

Flintstone Farm

Breeders of

Milking Shorthorn Cattle,
Belgian Draft Horses
Berkshire Swine.

We offer animals that will
raise herds to a level of war-
time efficiency. Bull calves
from \$125 up.

DALTON
Massachusetts

MESSRS. A. J. HICKMAN & CO. (Late
Hickman & Scruby) Court Lodge,
Egerton, Kent, England, Exporters of

PEDIGREED LIVE STOCK

of all descriptions. Speciality made of draft horses,
beef and dairy breeds of cattle, show and field
sheep. Illustrated catalogues and testimonials on
application. All enquiries answered with pleasure.
Now is the time to import. Prospects were never
better, and insurance against all war risks can be
covered by payment of an extra 1% only.

Mardella Shorthorns

Herd headed by The Duke, the great, massive, 4
year-old sire, whose dam has 13,599 lbs. of milk and
474 lbs. of butter-fat in the R.O.P. test. I have at
present two exceptionally good young bulls ready
for service, and others younger, as well as females
all ages. Some are full of Scotch breeding, and all
are priced to sell. Write or call.

Thos. Graham, R.R. No. 3, Port Perry, Ont.

Brownlee Shorthorns. Offers a choice lot
of young bulls, ranging in ages up to
nine months, and sired by the Nonpareil bull,
Royal Saxon. See these before buying elsewhere.
Could also spare a few females. Douglas Brown,
Bright, Ont., R.R. 3, Ayr Station, C. P. R.

Shorthorns and Shropshires—We still have
a few extra well covered shearing
rams. Also a choice lot of ram and ewe lambs.
Prices right. We can supply young bulls or heifers,
both of which are from high-record dams.
P. CHRISTIE & SON, Port Perry, Ont.

Evergreen Hill R.O.P. Shorthorns

Herd headed by the R. O. P. bull, St. Clare.
Nothing for sale at present.

S. W. Jackson, R.R. No. 4, Woodstock, Ont.

Glenfoyle Shorthorns—College Duke 4th in
service—a high-record son of Roths-
child and Taylor's noted stock. Am offering young
cows and heifers, bred to this great bull. Have a
few bulls of breeding age on hand.
STEWART M. GRAHAM, Lindsay, Ont.

For Dual-Purpose Shorthorns

Also Dorset-Horned Sheep, apply

Valmer Bartlett, R.R. 2, Canfield, Ont.

Graham's Dairy Shorthorns

I have a choice offering in cows and heifers in calf.
Bulls from the heaviest milking strains.
Satisfaction guaranteed.

CHARLES GRAHAM - Port Perry, Ont.

The Hawthorne Shorthorns and Leicesters

—Bulls, heifers and cows—
The Toronto winner, "Royal Choice" = 79864 =,
at the head. In Leicesters, 1 choice 2-shear ram,
and ram lambs by my imp. ram. No females.
One choice Fox Terrier puppy (male); price \$5.00.
"The Hawthornes," ALLAN B. MANN,
Peterboro, R.R. 4.

Imperishable Potatoes.

There is an analogy between the sub-
marine and the potato. America in-
vented the undersea boat and American
soil grew the first spuds. Germany
welcomed both of them with open arms
as instruments peculiarly fitted to help
her win world domination. She will not
succeed, but nevertheless, there is much
that we can learn from the ruthless nation
about what the starchy potato has done
to stiffen her backbone, and of what she
has done to make the potato a food of
the first rank with an annual production
of one and three-quarter billion bushels,
or five times our own yearly crop.

The potato's principal drawbacks are
its bulk, which increases the transporta-
tion costs, and its perishability, which
causes losses from the field to the table
unless particular care is given. To
lessen these losses and to cut the costs
Germany has resorted to drying and the
manufacture of potato flour. We do not
know the extent of this business now
but we know that before the war more
than 800,000,000 bushels of the Father-
land's potato crop were dried each year—
and that is in excess of two year's pro-
duction in this country. Part of this
enormous amount of dried food was fed
to live-stock, but much of it was ground
into a nutritious flour for human
consumption.

Previous to 1914 Germany shipped us
\$300,000 worth of potato flour a year,
part of which was bought by bakeries
for making bread and some by high-
class hotels and restaurants for thicken-
ing soups and making fancy pastries.
During the last few months Japan, with
an annual production of only 35,000,000
bushels, shipped us 400,000 pounds of
potato starch which had been ground
into flour. Strictly speaking, this pro-
duct should not be called flour, as it is
pure starch, the process of manufacture
having eliminated the valuable mineral
salts, the albuminoids and the protein.
In spite of this the imported potato
starch has recently sold for twelve
cents a pound or even more.

Holland has one of the largest plants
now making flour from potatoes. J. W.
Robertson-Scott, in his book "Wartime
and Peace in Holland", says this factory
dries 33,000 bushels every twenty-four
hours. A special variety of potato is
grown by the farmers who are the co-
operative owners of this and other mills.
This variety is particularly high in starch
and other solids and yields remarkable
crops. The average in 1917 on 79,000
acres was 500 bushels to the acre, making
a total of 39,500,000 bushels. The
general run of market potatoes in Holland
yield only a little more than half as much
to the acre.

In these Dutch mills 137 pounds of
potatoes will make 20 pounds of first-
class flour, 4½ pounds of second-class
and one pound of third-class, the dif-
ference probably being in the amount
of crude fibre contained and in the color.
The cost of making the flour is about 3½
cents a pound. From the special variety
of potato Holland made 346,000,000
pounds of flour of the first grade last
year at a cost of \$73 on a long ton.

Much of this product goes, or did go
in the past, to South America and South-
ern Europe, where most of it was used
with Durham wheat flour in the manu-
facture of macaroni. Some of it is
used in bread.

In this country we have paid little
attention to flour-making except from
wheat. But when the Food Administration
began to tell us that wheat saving was
essential if we wished to save ourselves,
we started looking for substitutes—and
we have found them. Most house-
wives knew a little about cornmeal,
graham, barley, rye and rice flour, but
few people except the bakers knew any-
thing at all about potato flour. This
year they are learning about the new
breadstuffs and the growing demand is
pushing the manufacturers to greater
efforts.

We now have six plants in the United
States making natural potato flour.
About 6,000,000 bushels of the 1917 crop
were made into dehydrated potatoes;
natural flour, and potato starch.
"Natural" potato flour—made from the
whole cooked potato, minus the skin
—is the only kind that should be
made. It contains in addition to the
highly digestible starch, protein, mineral
salts, albuminoids and the vitamins so
necessary for growth. Flour made from
starch is a valuable food, but in great

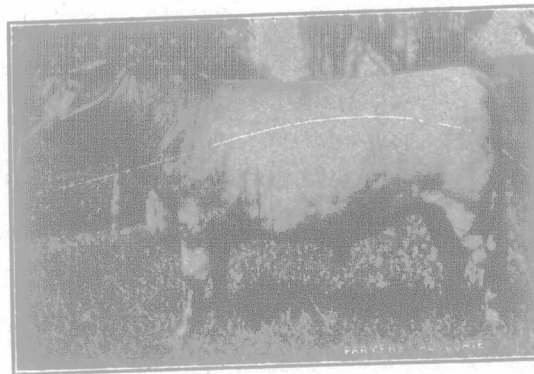
English Dual - Purpose Shorthorns

The Lynnore Stock Farm specializes in English Dual-pur-
pose Shorthorn cattle. The foundation animals of the herd
are all imported from English breeders who have for many
years bred for beef and milk combined, for which purpose
the great Shorthorn breed is in a class by itself. We have in-
troduced no Canadian or American blood into our herd, not
that it is in any sense unworthy, but it is not included in our
scheme. We want to sell young bulls rich in the blood of the
best English dual-purpose families to head the herds of Cana-
dian or American Shorthorns. This is good practice and
should result in advantage to the buyers. We are less con-
cerned in great milk records for some individual cows, than
to produce a type which will give a good average yield of milk,
and at the same time be of large frame and good conforma-
tion. You do not have to veal the male calves from such
stock. We hold that the dual-purpose Shorthorn, either
pure bred or grade, is the most useful type for the average
Canadian farmer. It gives him two strings to his bow and
so is safe.

To Breeders and Farmers with Shorthorn herds (and who
are not specializing on beef strains) we say, put at the head
of your herd a good dual-purpose bull of pure English blood,
and at one stroke you will introduce a real factor to build
your own prosperity and that of the country.

We have a number of young bulls for sale—There
may be some choice in respect to individuals but all belong
to the same class and the buyer can scarcely make a mistake.
They are all English dual-purpose bulls bred from away
back for milk and beef, with pedigrees to back the claim.
Write for particulars or better still, come to the farm and see
the bulls.

F. Wallace Cockshutt
Lynnore Stock Farm Brantford, Ontario



GAINFORD SUPREME, No. 115283

Robert Miller, Stouffville, Ont., still has a few Shorthorn bulls, fit for
service, and some females that are as
good as can be found for the man that wants to start right in Scotch Shorthorns. They will be sold
for a low price, considering the quality, and the freight will be paid.
Write for anything in Shorthorns. One hour from Toronto.

FOR SALE

A good red bull, calved September 1917 (grandsire and grandam imported) in good condition, a show
bull, if fitted. Two cheaper bulls about the same age, from milking dams.
J. T. GIBSON, DENFIELD, ONTARIO.

IMPORTED SCOTCH SHORTHORNS

Our present offering includes 100 imported females and 12 young imported bulls, representing the most
desirable lines of breeding. If interested come and see them. Burlington Jct., G.T.R. is only half
mile from farm. J. A. & H. M. PETTIT, FREEMAN, ONTARIO.

MAPLE HALL SHORTHORNS

Present offering, 7 yearling bulls; One Shepherd Rosemary.
One Cruickshank Duchess of Gloster. Five Cruickshank Butterflys. and yearling heifers.
All pure Scotch, and extra good; also a few young cows with calves, and yearling heifers.
D. BIRRELL, & SON, CLAREMONT, ONTARIO

Shorthorns Landed Home—My new importation of 60 head will be at home to
visitors June 20th, and includes representatives of
the most popular families of the breed. There are 12 yearling bulls, 7 cows with calves at foot, 24
heifers in calf, of such noted strains as Princess Royal, Golden Drop, Broadhooks, Augusta, Miss
Ramsden, Wimple, etc. Make your selection early.
GEO. ISAAC (All Railroads, Bell 'Phone) Cobourg, Ont.

Spring Valley Shorthorns—Herd of 70 head, straight Scotch, good indi-
viduals. Headed by the great show and breeding
bull, Sea Gem's Pride 96365, and Nonpareil
Ramsden S3422. We have for sale four as good young bulls as we ever had, and a few females.
KYLE BROS., Drumbo, Ont., ('Phone and telegraph via Ayr.)

GLENGOW SHORTHORNS

We have a choice offering in young bulls, fit for service. They are all of pure Scotch breeding
and are thick, mellow fellows, bred in the purple.

WM. SMITH, COLUMBUS, ONTARIO. Myrtle, C.P.R.; Brooklin, G.T.R.; Oshawa, C.N.R.,

SHORTHORN BULLS

Will. A. Dryden
Brooklin, Ontario Co.
Myrtle, C.P.R., Brooklin, G.T.R.
Brooklin, C.N.R.
of my own breeding, around a year old; best families and
good colors, are for sale. Also a few young, imported bulls.



"Slipping" not "Saving"

"I kept slipping back two feet every time I went ahead one." That's what the small boy gave as an excuse to his teacher for being late for school one winter day.

And that's just what is happening to the cow owner who is trying to get along without a cream separator or with an inferior or half-worn-out machine. Like the small boy he is "slipping." He thinks he is thrifty, but for every dollar he saves by not buying a De Laval he loses two through not having one.

It isn't economy to do without labor saving and money saving and food saving machines. It isn't economy to feed 40-cent butter to the calves and hogs.

It is economy to buy and use only the best cream separator made—and that's the De Laval.

Viewed from every standpoint—clean skimming, ample capacity, ease of operation, freedom from repairs, durability—there is no other cream separator that can compare with the De Laval.

It's real thrift and genuine economy to buy a De Laval Separator NOW

Why not see the nearest De Laval agent at once! See a new 1918 De Laval machine for yourself. Try it to prove every claim made for it. If you don't know a De Laval agent write direct to one of the addresses below.

THE DE LAVAL COMPANY, Ltd.

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

MONTREAL. PETERBORO WINNIPEG VANCOUVER

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

need of just those things that have been taken from it in the washing process. Then, too, a ton of potatoes will make 425 pounds of potato flour and only 225 pounds of starch.

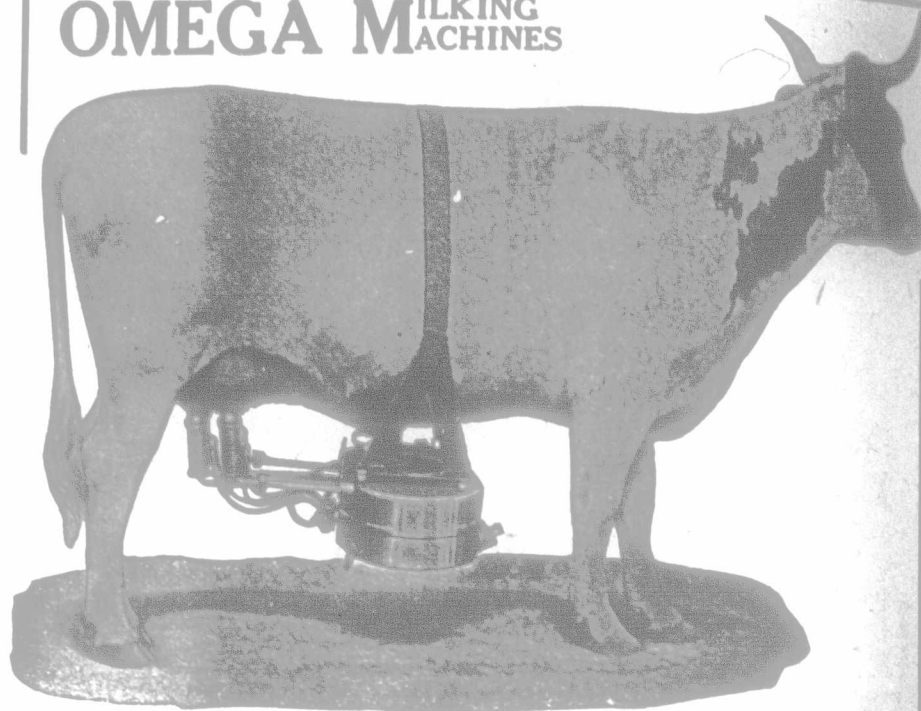
In the making of potato flour the tubers are washed, cut, cooked, dried, ground, rolled and bolted, the bolting taking out the skin. Starch is made by grinding the washed potatoes, pumping the pulp over screens to take out the coarse material and letting the starch settle out in vats. Running water then removes everything but the starch, which stays on the bottom.

There is every reason to believe that natural potato flour will become a regular part of our diet. It can be made at a reasonable price once the industry is established, and it can compete with wheat flour up to 16 2/3 per cent. of the loaf. Used in a large proportion it makes the bread wet and soggy. Dr. Le Clerc, of the Department of Agriculture, says that potato flour at eight cents a pound is equal to wheat flour at six cents. The one-third greater value is due to the large content of mineral salts. Dr. Le Clerc gives the following analyses as representing a fair comparison of the two kinds of flour:

	Mois- ture p.c.	Ash p.c.	Fat p.c.	Pro- tein p.c.	Carbo- hydrate p.c.
Wheat.....	12 1/2	.5	.1	11	75.5
Potato.....	7	3.5	.4	9	80.1

We have known for a long time that there was something about the potato that improved the flavor, consistency, and keeping qualities of bread. That is why "potato water" was considered essential by every breadmaker. Now we

OMEGA MILKING MACHINES



Omega Milks Fast and Clean

No Tainted Milk No Rubber Connections

The Omega milking machine draws the milk from the teats by a gentle alternating motion similar to hand action and conducts it to the pail through short, stiff, transparent celluloid tubes. The pail and the teat-cups are suspended from the back of the animal. The pail cannot be knocked over and the milk spilled, and the teat-cups cannot fall to the stable floor and suck up straw, or manure. The Omega is

Sanitary, Efficient and Easily Cleaned

There are no corners and no rubber tubes to harbor fermenting particles of milk in the Omega. The Omega has few parts, and is as easily and quickly cleaned as a milking pail. At official government tests the Omega was the only machine that milked faster and cleaner than by hand. The Omega in a 17-day test on 10 cows, compared with the 17 previous days, increased the total amount of milk given by 3%. The test was conducted by Prof. Leitch, of O.A.C., Guelph.

Users Prize the Omega

Mr. R. R. Ness, of Howick, Que., the noted breeder and importer of Ayrshire cattle (whose cow is shown above) writes us regarding the Omega as follows:—"In my opinion it is the greatest boon which has ever struck our country, in the interest of the Dairy Farmer. This machine, in my mind, eliminates all the troubles and objections found in other milkers which I have had the privilege of seeing. It certainly has all other machines beaten, in point of cleanliness with those celluloid tubes instead of rubber, the pail hanging on the cow's back, never touching the floor, the position in which the teat-cups are held, insuring the most cleanly way of milking known to-day."

The Health Departments of some large cities demand the use of Omega milking machines, (and then only) as they supply milk with a minimum bacterial count. Learn more about the Omega.

Write To-day

for free booklet which fully describes the Omega and its wonderful records.

C. RICHARDSON & CO., ST. MARY'S, ONTARIO

EVERGREEN STOCK FARM . . . Registered Holsteins

Just now we are offering one choice yearling bull, ready for heavy service. The records of his five nearest dams average over 31 lbs. butter in 7 days, and over 100 lbs. milk in 1 day. We have also some high-record bull calves, including one whose dam and sire's dam have records that average 37.66 lbs. butter in 7 days and 127 lbs. of milk in 1 day. A. E. HULBERT, Norwich, Ont. Bell Phone 48-3

Lake Marie Farm Shorthorns

Herd Sire—Golden Hope, an Orange Blossom by the great Archer's Hope. We have several young bulls by him and four other 8 months calves by the R. O. P. sire St. Clare. All are priced to sell. We are also pricing a few fresh Dutch Belted cows and heifers. This breed although not well known in Canada are extra heavy milkers. Correspondence solicited.
LAKE MARIE FARMS, KING, ONT.
SIR HENRY PELLATT, Owner THOS. McVITTIE, Manager.

CREEKSIDE SCOTCH SHORTHORNS

Herd headed by Gay Monarch 79611; dam, Sally 8th imp., and sire, the great Gold Sultan 75411. My present offering of young bulls includes several 7 to 14 months' youngsters, all thick, mellow well-grown fellows—reds and roans—and priced right. Can also supply females in most any numbers
Geo. Ferguson, —Elora Station, C.P.R., G.T.R.—Salem, Ont.

NICHOLSON'S SHORTHORNS

We have about a dozen young bulls (ages 8 months and upwards), sired by our herd headers, Best Boy = 86552 = and Brownie Winner = 106217 = . Write or come and see.
R. and S. Nicholson, Parkhill, Ontario

FLETCHER'S SHORTHORNS

Our herd of Scotch Shorthorns represents Orange Blossoms, Kilblean Beauties, Matchless, Mysics, Missies, Clementinas, etc., and is headed by the Watt-Stamford bull, Victor Stamford =95959 =, a Toronto winner. Present offering—one young bull and several heifers and cows.
GEO. D. FLETCHER, ERIN, R. R. 1, ONT. Erin Station, C. P. R., L.D. Phone

1854 Maple Lodge Stock Farm 1918

Shorthorns and Leicester Sheep; 4 shearing rams and a few lambs on offer.
CHARLOTTE SMITH, (Lucan Crossing one Mile) CLANDEYBOYE, R. R. 1, Ont.

WILLOW BANK STOCK FARM

SHORTHORN CATTLE and LEICESTER SHEEP. HERD ESTABLISHED 1855—FLOCK 1848
The great show and breeding bull, Browndale =80112 =, by Avondale, heads the herd. Extra choice bulls and heifers to offer. Also a particularly good lot of Leicester rams, mostly from Imp. ewes.
JAMES DOUGLAS CALEDONIA, ONTARIO

SHORTHORNS, SHROPSHIRE

Four richly-bred Lavinia females for sale. Grand lot of bull calves sired by Lochiel (Imp.) for next fall's business. Also nice bunch of Shropshire lambs, sired by Miller ram. Come and see them.
Wm. D. Dyer, R. No. 3, Oshawa, Ont. 2 1/2 miles from Brooklin, G.T.R.; 4 miles from Brooklin, C.N.R., or Myrtle, C.P.R.

Pleasant Valley Farms—Present offering: A number of good, young Scotch cows with calves at foot and rebred to (Imp.) Newton Grand Champion; also a number of 2-year-old heifers bred to same sire. Suitable for good herd foundations; priced to move them. Inspection invited.
GEO. AMOS & SONS (Farm 11 miles east of Guelph, C.P.R.), Moffat, Ont.

know there are even better reasons—economy and better nutrition.

American potato-growers need to give their best attention to the problems of growing the right varieties for flour and developing drying plants and flour mills. There should be as good an opportunity for a co-operative potato-flour mill in a potato-growing section as there is for a co-operative creamery or cheese factory in a dairy section.

This newly imported method of handling the potato crop will go a long way toward putting one of the most unstable industries on a solid foundation. It will make the spud one of the non-perishables along with wheat, beans, and canned foods.

Sweet potatoes offer interesting possibilities to the manufacturer of potato flour. This product makes excellent cakes and other pastries with the addition of smaller amounts of sugar than are ordinarily used. Dr. Carver, of the Tuskegee Institute, has done considerable experimenting with this product, and has had most excellent results. He has made bread containing as high as 33 1/2 per cent. of sweet potato flour. The town of Tuskegee and a small neighboring town have used nothing but this sort of bread for fourteen months, saving 200 pounds of wheat flour a day. There is a plant at Greenville, S. C., that has been making sweet-potato flour and several by-products.—Lou D. SWEET in "Review of Reviews".

Grossly Material.—"What is your favorite perfume?"

"Well," replied Mr. Cumrox, "in the evening it's mint, but in the morning it's ham and eggs."

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UNION MADE
OVERALLS
SHIRTS & GLOVES



My Dad wears 'em

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93

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R. G. LONG & CO. LIMITED
TORONTO CANADA

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FLEMING'S SPAVIN CURE (Liquid) is a special remedy for soft and semi-solid blemishes—Bog Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It is neither a liquid nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be imitated. Easy to use, only a little required, and your money back if it ever fails.

Fleming's Vest-Pocket Veterinary Adviser describes and illustrates all kinds of blemishes, and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write.

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Not an Experiment

Uses no Gasoline, not even to start with. Starts easily in the coldest weather on the fuel it runs on, Coal Oil or Fuel Oil, and only uses half the amount required by other so-called Oil Engines. The saving in fuel alone will pay for this engine in a few months. The

Hoag Oil Engine

has no electric devices whatever, the burning of the oil is obtained by mechanical means alone, and the usual time and trouble, forever fixing electrical ignition, is entirely done away with, making this engine the Farmers' Friend. Get circulars and price of size you are interested in.

HENRY P. HOAG & CO.
Brantford Ontario.

Sylvius Walker
Raymondale, No. 31635

Heads the Herd at Ridgedale Farm.

He is a grandson of May Echo Sylvia, the greatest cow in the world, living or dead. He is also a brother to the sire of the \$106,000-bull. His sire, Avondale Pontiac Echo, No. 18352, is the grand-sire, and also a half brother to the same \$106,000-bull. His dam is Rita Pietertje, Walker, No. 32401.

Milk in 365 days at 2 years.....	181.56
Butter in 365 days at 2 years.....	752.50
Butter in 7 days, second calving..	25.25
Milk in 7 days, second calving....	604.20
Milk in 1 day, second calving.....	93.

He is a combination of the May Echo Sylvia line with the Great King of the Pontiacs line. Crossed on the Great King Walker and the Pietertje strain. Individually he is as near perfect as it is possible to breed them. We have bred him to 20 daughters of the great bull, King Segis Pontiac Duplicate, No. 10301, a brother to the \$50,000-bull.

We will accept a few approved cows for service. We have a few good grandsons of King Segis Pontiac Duplicate for sale.

R. W. WALKER & SONS
R.R. 4 Port Perry, Ont.

Holstein Bulls

Ready for service and younger. Cows and heifers bred to ORMSBY JANE BURKE, whose two nearest dams average 38.82 lbs. of butter in 7 days. The three nearest sires' dams and his dam's records average 35.69 lbs. for 7 days, and 112 lbs. milk for one day.

R. M. HOLTBY, R. R. 4, PORT PERRY, ONT.

Danish Agriculture.

EDITOR "THE FARMER'S ADVOCATE":

That increased live stock is the keynote to agricultural improvement, even though wheat production is the avowed objective, is the story Dr. E. T. Russell, F. R. S. and Director of the Rothamsted Experimental Station in England tells us is the cause of Denmark's greatness. The Doctor writes to that effect in the introduction to a new book just translated by Mr. Harold Faber, the Danish Consul-General to Britain and issued by Longman's, London, at two dollars.

It would be difficult to find a more entrancing subject, Dr. Russell tells us, "than the history of Danish agriculture between 1860 and 1912, roughly the period covered by this book. Up to the beginning of this period the story has been much the same as our own—there had been a steady improvement from the beginning of the nineteenth century to the culmination in the 'sixties. The system had been essentially one of corn production; but in order to get the best results it had to be combined with live stock. It was in working out the combination that Danish agriculture took a line of its own which gradually led to complete differentiation from other European systems. The English farmer had gone in for meat production. The Danish farmer, on the other hand, went in for dairy work. The choice was momentous, and we should like to know a little more fully what determined it. Events have shown that it was emphatically the right choice, because dairy farming produced much more food per acre of ground than meat production, and it allows full scope for, indeed it necessitates, those co-operative methods of business and production which have since dominated Danish agriculture. Co-operation came later. In 1882 Still-

in Anderson founded the co-operative dairy at Hjedding, which is usually regarded as the starting point, though, as a matter of fact, a co-operative dairy had already been established in 1875. The wisdom of the Danish choice was evident in the eighties and nineties, when Europe was flooded with cheap agricultural produce, especially from the virgin countries of the new world and Australasia. Wheat fell to nearly half the price it had commanded in the sixties. English agriculture suffered a terrible set back, and did not begin to recover till about 1896. Danish agriculture, on the other hand, was able not only to weather the storm, but even to make headway all the time. The improvement in dairying reacted on the arable farming; the export of butter rose from 10,300 tons per annum in the late seventies to 100,000 tons per annum before the war, and the yield of wheat rose from 30.9 to 36.5 bushels per acre. Thus the Danish system has proved to be eminently suitable for the production of wheat from the land". The later figures given in the appendix emphasize still more Dr. Russell's contention that the increased live stock adds essentially to the fertility of wheat land. They show that between 1861 and 1914 cattle increased from 1,119,000 head to 2,463,000 head, and pigs from 301,000 head to 2,497,000 head. During the same period the yields per acre of wheat rose from 30.9 bushels to 43.1; bushels of oats from 30.3 bushels to 44.0; bushels of barley from 27.5 bushels to 38.2 bushels, and of potatoes from 4.2 tons to 5.7 tons. That is the part which increased live stock has played in Danish agriculture, and the fact is certainly full of suggestion for England's reconstruction work.

Mr Faber's story of co-operation in agriculture in Denmark is very instructive. The foundations of the system were laid by the peasants themselves, and during the latter half of the last century the work "aimed almost exclusively at improving agriculture or agricultural industry." And it was largely live stock that they thus devoted their attention to. The peasants, Mr. Faber points out, "formed societies for the purpose of enabling them to adopt means for the improvement of their live stock which they saw practiced by large landowners, but which they themselves individually could not afford to employ. They also combined in other societies to improve their business by the manufacture of butter and bacon on an industrial scale, and introduced quite original modes of co-operation, such as 'control' societies. Later

Manor Farm Holsteins

Make your day at the Fair a profit as well as a pleasure. Call around and see us at the

EXHIBITIONS

Toronto, August 26 to Sept. 7
Ottawa, Sept. 7 to Sept. 16

Gordon S. Gooderham, Clarkson, Ont.

HOSPITAL FOR INSANE, HAMILTON, ONT.

Present herd sire is one of the best sons of King Segis Alcartra Spofford; we have three of his sons born during May and June last and also a grandson of Lakeview Lestrangle. Apply to Superintendent.

HET LOO PIETERTJE

THE \$12,750 HEIFER

Sold at the great Milwaukee Sale, was only one of the many daughters we have of our senior sire Pontiac Korndyke of Het Loo. We also have sons—brothers to this world's champion heifer; and for the next few weeks, these, along with several other young bulls of serviceable age, are priced exceptionally low. Let us hear from you if interested—at once.

W. L. Shaw, Roycroft Farm, Farm on Yonge St., Toronto & York Radial 1½ hours from Toronto, New Market, Ont.

Herdsman Wanted

I am open to engage an experienced herdsman to handle my well-known Holsteins herd. I want a man experienced in R. O. M. work, to develop a most promising lot of young cows and heifers. We have five 30-lb. cows now and want five more next winter.

First-class house and pleasant surroundings, near Toronto. Apply by letter first.

R. W. E. BURNABY - **JEFFERSON, ONT.**

Orchard Leigh Holsteins

With only one exception every female in our herd averages around 4% in all of our Record of Performance work, and every mature cow in the herd has been or is running. Write us regarding both our 7-day and yearly record work. Our present offering in young bulls can not be duplicated in Ontario at the prices we are asking.

JAS. G. CURRIE & SON (Oxford County) **INGERSOLL, ONT.**

Riverside Holsteins—Choice Bulls

We have several 10 months old, from dams with official records up to 100 lbs. of milk per day and 32.32 lbs. butter in 7 days. These are well marked and straight individuals. Inspection invited.

J. W. RICHARDSON CALEDONIA, ONTARIO.

DUMFRIES FARM HOLSTEINS

Cows for sale, bred to Plus Evergreen, son of Evergreen March.

S. G. & ERLE KITCHEN Bell 'phone. **ST. GEORGE, ONTARIO**

Cloverlea Dairy Farm Holsteins

Present offering consists of three choice young bulls—easy for service. Will be priced right for quick sale. For price and particulars apply to **GRIESBACH BROS., COLLINGWOOD, ONTARIO.**

SILVER STREAM HOLSTEINS

Special offering—four well-bred young bulls fit for service, sired by King Lyons Colantha whose 6 nearest dams average 30.10 lbs. of butter in 7 days and from daughters of King Lyons Hengerveld whose five nearest dams average 31.31 lbs. butter in 7 days. For fuller particulars and prices write at once. Priced to sell. **J. MOGK & SON, R. R. 1, TAVISTOCK, ONTARIO.**

My Present Offering of
HOLSTEIN BULLS

8 months and younger from Sir Gelsche Walker, whose 7 nearest dams average 30 lbs. butter in 7 days, and officially tested cows. Write for prices and full particulars.

Thos. L. Leslie, Alluvialdale Farm, Norval Station, Ont.

A. R. LUNDY

Factory, Farm and Lawn Fence
Fire Escapes
Ornamental Iron Work
Concrete Reinforcing Fabric

257 King St. West, Toronto

YOU may possibly remember the writer, through his connection with the Page Wire Fence Co., with whom I spent a happy thirteen years, nearly eight years of this time as sales manager for Ontario, with office and warehouse at Toronto.

July 1st, one year ago, the Page Co. gave up their Toronto branch, which the writer took over, and commenced business on his own account. The year's business has been very satisfactory.

Practically all the fence handled by me during the year was purchased from the Page people, but as that company is now operated by its new owners, it has seemed wise for reasons which the change in ownership has brought about, for me to look to another source for my fence supply.

I am pleased to say that most favorable arrangements have been made, and I am now able to sell in any territory, not being confined to a small district, as was the case last year. You will find that my prices will compare favorably with other quotations, and as goods are being shipped from a large stock, you can reasonably expect prompt service.

In addition to fence, I have other good lines, fully illustrated in my catalogue, "The Heart of the Farm." This catalogue will be ready August 20th. If you are interested in

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SAW FRAMES **GRAIN GRINDERS**
PUMP JACKS **GOVERNOR PULLEYS, etc.,**

write at once for this Catalogue and Price List. It will be a pleasure to quote you prices.

Look us up at Toronto Exhibition. We'll be there, and pleased to see you.

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Oil Cake Meal

The Best Live-stock Food

J. & J. Livingston Brand

The Best Oil Cake

Feed with your silage, roots, etc.

Flax Seed
Pure Linseed Meal

The Dominion Linseed Oil Co., Ltd.

Baden, Ont.

Montreal, Que.

on they took up the question of improving farm seed, both by producing better strains of different kinds of plants, chiefly corn and roots, and by buying those improved seeds through special co-operative purchase societies. All these and sundry other co-operative societies, each with its own single object, were formed by the peasants for the purpose of improving their farming in the highest sense of the word; and the success achieved was such that gradually farmers in a large way, and even wealthy landowners, found it to their advantage to join these peasant societies." In other words, the peasant farmers knew what they wanted, and used co-operation as a servant to enable them to obtain it. This is the true place of co-operation and no one need be surprised to hear that it has succeeded, and that the peasant co-operative societies are to-day the backbone of the co-operative movement in Denmark. The livestock side is especially strong. Bull clubs, horse breeding associations, cattle and pig breeding societies, being all local in their origin, and only combining in provincial federations after they had, by their success, grown strong locally. They sprang up from the land and were not forced upon the land by powers above.

ALBION.

French-Canadian Herd Book.

We are in receipt of Volume two of the French-Canadian Herd Book, published by the Canadian National Live Stock Records, Ottawa. This volume of the French-Canadian Herd Book contains the names and breeding of animals registered during the year 1917, the numbers ranging from 1572 to 4215. The volume covers 314 pages and is attractively bound in red cloth, giving, in addition to the information noted above, the officers of the French-Canadian Cattle Breeders' Association for 1917, The Constitution and By-laws, rules of entry, scale of points, list of members, list of breeders and owners and the Canadian Record of Performance for the year.

DEAFNESS

ITS CAUSES AND TREATMENT

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

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Don't miss seeing

"Hemme's Latest Root Seeder"

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Two months old. Sire, Broadview Bright Villa; dam (imported) Astoria H. C. 1st. and special prize Island of Jersey. Also bull ready for service and two bull calves out of high-testing cows. Few cows and heifers.

F. G. TODD,

801 New Birks Building, Montreal

BRAMPTON JERSEYS

We bred and owned the dam, and imported the sire of the champion R.O.P. butter cow of Canada. We own the champion four-year-old R.O.P. butter cow of Canada. To make room for 1918 importation, expected to arrive in May, we are making special offerings of females and bulls, all ages.

B. H. BULL & SON

BRAMPTON, ONTARIO

Twenty-five Years Breeding REGISTERED JERSEYS and BERKSHIRES

We have bred over one half the world's Jersey champions for large yearly production at the pail. We bred, and have in service, the two grand champion Berkshire boars. If you need a sire for improvement, write us for literature, description and prices.

HOOD FARM, LOWELL, MASS.

THE EDGELEY CHAMPION HERD OF JERSEYS

Write us about your next herd sire. We now have sons of our present herd sire, Edgeley's Bright Prince, who is a son of Canada's champion butter cow, Sunbeam of Edgeley. Pay us a visit. Sunbeam of Edgeley is not the only high-record cow we have. We are pleased to show our herd at all times.

JAMES BAGG & SONS (Woodbridge, C.P.R., Concord, G.T.R.) EDGELEY, ONTARIO.

PROSPECT FARM JERSEYS

125 Jerseys in the herd. For 30 years we have been breeding Jerseys for production. Choose your bulls, young cows, and a few high-grade cows and heifers for sale.

R. & A. H. BAIRD

R.R. 1, New Hamburg, Ont.

THE WOODVIEW FARM JERSEYS

LONDON, ONTARIO
Jno. Pringle, Prop.

CANADA'S MOST BEAUTIFUL JERSEY HERD

Imported Champion Rowler at its head. This bull, with his get, won first prize on the Island of Jersey, 1914, second in 1919, and again first in 1917. Present offering—A few yearling heifers in calf to our great young bull, Woodview Bright Prince, (7788), and bred from imported sires and dams. We show our work cows and work our show cows

Growing Tobacco Seed.

In years past the lack of strong viable seed has caused the tobacco growers of Ontario considerable trouble and loss. This can be easily remedied if each tobacco grower would select a few seed plants and produce his own seed.

On the Harrow Tobacco Station it has been found that good home-grown seed not only produces earlier and more uniform seedlings in the plant beds but also produces plants which mature earlier in the field than foreign grown seed.

In selecting seed plants the field should be gone over carefully before topping and about twice as many plants selected as are required for the amount of seed to be produced. The plants selected should be typical of the type of tobacco grown, early, with a good shaped leaf of good size, and the distance between the leaves on the stalk should not be too long. The number of leaves on the plant and the color of the leaves about ripening time should also be taken into consideration. Plants with coarse veined leaves are undesirable.

After the first selection these plants should be carefully studied and any developing undesirable characteristics discarded.

Before the first flowers open each seed head should be trimmed up until only the five top branches are left. This should then be covered with a 14-pound Manilla bag, the mouth of which is tied loosely around the stalk just below the lowest remaining branches. About every ten days these bags should be removed and all suckers, late pods and fallen blossoms taken out.

When the seed pods are all formed and begin to turn brown these bags should be taken off and the seed heads allowed to ripen in the open. By doing this the pods mature earlier and there is not so much danger of them moulding.

After the greater portion of the seed pods turn brown the seed heads should be harvested and hung in a dry place for about two months after which they may be shelled.

Shelled seed should be kept in a dry place in a container into which the air can enter.

D. D. DIGGES,
Supt. Harrow Tobacco Station

Questions and Answers.
Miscellaneous.

Heavy Bull.

Bull has broken the back of one cow and lamed another. Can any arrangement be built to relieve his weight when serving a cow?
A. K.

Ans.—We doubt if a breeding crate for cows would be practicable, and would advise using a lighter animal on your small or young cows.

Slimy Milk.

1. Why do cows give slimy milk?
2. What causes eggs to taste of lime?

Ans.—1. Slimy milk is usually due to the accumulation of a large number of bacteria which change the sugar of the milk into a slimy or ropy mass. The bacteria come from dust or bad water which gets into the milk at milking time or during the washing of the utensils. Thoroughly scald the pails, strainers, etc., and see if the trouble will be removed.

2. Egg shells are porous. In fact, the shell itself is composed largely of lime. If in contact with a strong lime solution the contents of the egg might taste, otherwise we cannot account for the abnormal taste.

Feeding Hogs.

1. Would it pay a farmer having a number of thrifty pigs seven weeks old, and his own grain, to feed them or to sell at \$9.00 each?
2. If the former, in the absence of milk, what would be the best feed for the pigs for the first month after weaning?
3. What alterations of feed should be made as the pigs increase in weight?
4. Have you any reliable data as to the amount in weight and value of feed required to produce 100 lbs. of pork; assuming that you begin with pigs from the sow, seven weeks old, the term being from middle of August?
5. Can pigs three to four months old be advantageously fed during the months of December and January on absolutely cold feed and water?
6. Can roots, raw or cooked, be used to advantage to economize on the meal diet, and, if so, in what manner?

S. P.

Ans.—1. It will depend on a number of circumstances, such as price of grain, kind of grain, amount of skim-milk available, thriftiness of pigs, price of finished hogs, etc. With shorts and oats at their present prices, and finished hogs at somewhere around the present price, we believe you could make good wages and interest on investment to grow and fatten the hogs. Pigs will get off to a better start on skim-milk than on any substitute therefor. We have made very well on pigs when purchasing all the feed.

2. Middlings and finely-ground oats with skim-milk makes the best ration for young pigs. Tankage may be used to advantage in the absence of mill.

3. It was generally thought that as pigs increased in weight barley or corn should be added to the ration, the amount being increased as the pigs neared the finishing point. The feeds mentioned are fattening. However, we have seen pigs that were grown and finished on shorts and skim-milk, others on oat chop, and still others on the by-product of the oatmeal mills. While there is nothing to equal middlings and oat chop for growing pigs we like to have some of the heavier grains for finishing.

4. The following figures are from Prof. G. E. Day's book, "Productive Swine Husbandry":

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

5. There is frequently more trouble with pigs during the severe weather than during warm weather, due largely to lack of sufficient exercise. The pen should be dry and properly ventilated. Satisfactory gains can be made under proper conditions of housing and feeding during cold weather.

6. Raw roots, especially mangels, can be fed to advantage. They not only result in a saving of feed but aid in keeping the animals healthy. Various tests have shown about 500 pounds of roots to be equivalent to 100 pounds of meal when fed to hogs.

McLAUGHLIN

Light Six

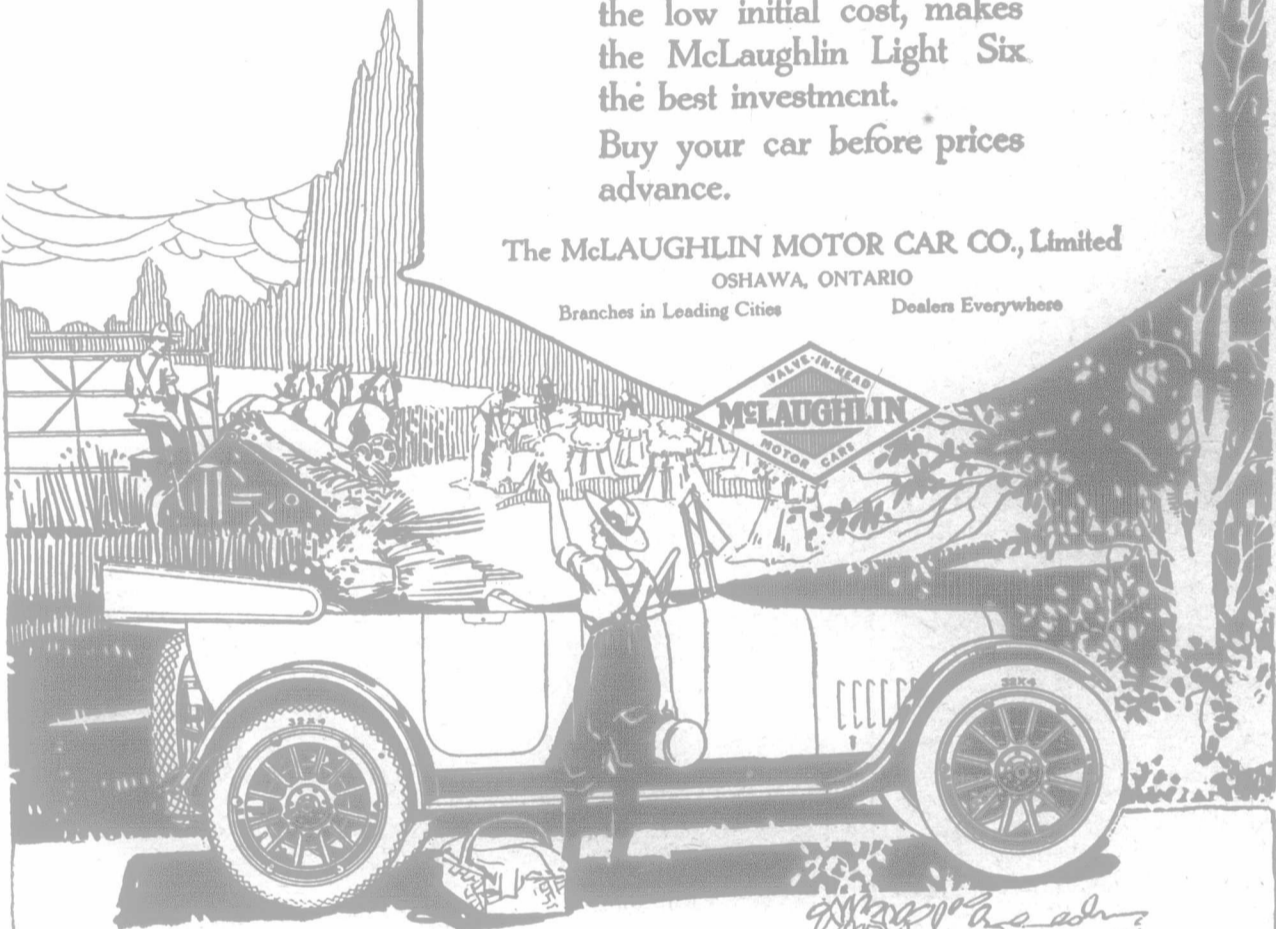
A Car that Fits Your Ideas of War Time Economy

LIGHTNESS in weight and good spring suspension insures maximum mileage from tires

The valve-in-head motor means economy in gasoline. These features, coupled with the low initial cost, makes the McLaughlin Light Six the best investment.

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ORKNEY FARM AYRSHIRES

I have a strong offering at present of bull calves out of "Dairymaid of Orkney" and others closely connected with "Milkmaid of Orkney", "Primrose of Orkney" and "Lenore 2nd." Yearling heifers bred to our imported sire, "Dunlop Corolla". Attractive prices quoted for immediate sale. Inspection solicited.

H. MacPHERSON (Bell Phone.) R. R. No. 1, COPETOWN, ONT.

RAVENSDALE AYRSHIRES

A few splendid 12-months-old bulls, out of R.O.P. and imp. high-testing dams. January test averaged 4.06%; also younger bulls and heifers. I have three registered Clydesdales for sale, eight months old.

W. F. KAY, PHILIPSBURG, QUEBEC

Write for prices or come and see stock. 50 miles south of Montreal. St. Armand Station, G.T.R.

GLENHURST AYRSHIRES—ESTABLISHED 50 YEARS

For a half-century Glenhurst Ayrshires have been noted for their depth and size, good teats and smoothness of conformation. Our famous Flos family has produced dozens of 60 and 65-lb.-a-day cows, many on twice-a-day milking. We have young bulls up to twelve months, and females all ages. If you are looking for a combination of size, type and production—plus high butter-fat—write me or visit the farm. JAS. BENNING, Summerstown, G.T.R.; Williamstown, G.T.R., Williamstown, Ont.

REGISTERED RED ROCK WHEAT ROSEN RYE

Pedigreed varieties developed at the Michigan Agricultural College and inspected, approved and registered by the Michigan Crop Improvement Association. Be sure and get Pure Rosen Rye, cross fertilizes readily. For list of growers write to Secretary of the Association.

J. W. NICOLSON, East Lansing, Michigan.

Choice Offering in Ayrshires AT SPECIAL PRICES. Several young bulls of serviceable ages. All from R.O.P. sires and dams. Come and see them.

JOHN A. MORRISON, Mount Elgin, Ontario

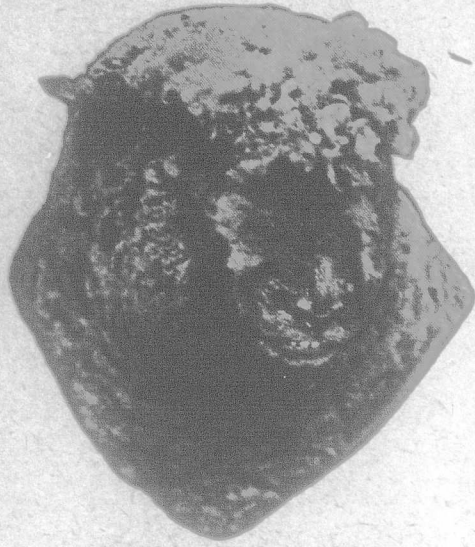
City View Ayrshires

Established in 1900. One serviceable bull from Record Dam testing 4.64% fat; some choice young stock. James Begg & Son, R.R. 1, St. Thomas

Glencair 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.

Please mention this paper

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The Sheep for the Producer, Butcher and Consumer. Our Oxfords Hold an Unbeaten Record for America.

We have at present a choice offering of yearling ewes and rams, as well as a lot of good ram and ewe lambs—the choicest selection of flock-headers and breeding stock we have ever offered. Look us up at the exhibitions.

PETER ARKELL & SONS
R. R. No. 1 Teeswater, Ontario
H. C. Arkell W. J. Arkell F. S. Arkell



OXFORD DOWN SHEEP

One of the Oldest Established Firms in America. Although we have sold our farm at Arkell, we are still in the sheep business, stronger than ever, having secured other land expressly for sheep. Present offering: 100 yearling rams and 50 yearling ewes. Orders taken for ram and ewe lambs for later delivery. All bred from our own importations. Prices reasonable. Communicate to:
HENRY ARKELL & SON
(Phone at present under name of T. Reg. Arkell)
70 Beatty Ave., Toronto, Ont.

Linden Oxfords

We are offering a number of shearing rams and ram lambs at reasonable prices.
JOSEPH MOUNTAIN, Linden Farm
R.R. 5, St. Mary's, Ont.

Cloverdale Shropshires and Berkshires—40 shearing rams, 70 shearing ewes; an exceptionally choice lot, true to type and well grown, nearly all sired by the show ram, Nock 16 imp. In Berkshires, the usual strong offering, including sows just bred. C. J. LANG, BURKETON, ONT.

Shropshires and Clydesdales—Besides my regular offering of ram and ewe shearings, I have the 3-year Clydesdale stallion, Cairnbrogie Heir 18299. Write quick, don't wait.
W. H. PUGH, Myrtle Station, R.R., Ontario

Leicesters and Shorthorns—A grand lot of shearings and lambs for sale this season. Also a few Shorthorn bulls and heifers. Good individuals and choice breeding.
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Questions and Answers. Miscellaneous.

Quick Sand.

1. I have three one-year-old colts running in pasture. Two of them got their legs full of porcupine quills; we pulled all the quills out we could find, but they are very lame and their legs are swollen badly. How can I remove the quills that are still in their legs?

2. In digging a well we struck quicksand bottom and can go no farther. Would it be wise to drive in this kind of a bottom?
F. H.

Ans.—1. Pulling the quills out is about the only means of removing them. Applying a poultice to the legs would help remove any inflammation and swelling which might be there.

2. By sinking an iron casing as fast as you drive the point down you would probably get below the quicksand and secure water in a strata of rock or clay lying below the quicksand. The casing would have to go below the sand, else it would soon fill and thus render the well useless.

Abortion.

Several of our cows lately have lost their calves at 7 months; calves came dead. The stables are well ventilated and limewashed. Do you know if this is a contagious disease? Is there a remedy? Kindly answer in your paper and oblige.
O. S.

Ans.—The symptoms are those of contagious abortion. This disease is becoming fairly prevalent and is the cause of much anxiety. Not only does it result in loss of calves, but many cows fail to breed again. It is spread by diseased cows coming in contact with healthy ones, by service of a diseased bull and by utensils in stable. Thoroughly disinfecting the stable, isolating the cows which have aborted, burning all aborted foetus and discharges, flushing the vagina of female and sheath of bull with some disinfecting material as Lysol, one per cent. solution of carbolic acid, boracic acid, etc., are effective means of stamping out the trouble. Do not breed cow for several months after she aborts, and in the meantime use the disinfecting material freely. If the bull is known to be diseased it is unwise to use him on a cow which is free, unless he has been regularly and thoroughly disinfected for some time.

Sickly Raspberry Plants.

My raspberries are giving me considerable trouble this year. Before the first berries were ripe the fruiting canes commenced to die; at the time of writing they look as if they had been scorched by fire. I also noticed that the young growth did not look healthy at all, the leaves having a grey appearance. Nothing was visible to the naked eye, but when examined with a "botany glass" they were found to be infested with numerous tiny, white spider-like insects with a dark blotch on the back. They are very quick moving, and when brushed off on the bare arms or hands will sting or bite and appear to be very poisonous and irritating. When the fruit is done should I spray, and if so what with?
M. W.

Ans.—It is not easy without seeing the raspberry bushes to determine what is wrong with them. The little spiders on the undersurface, though not red in color, are the genuine Red Spiders, and are an important factor in making plants look sickly. I have, however, seldom or never seen them do the amount of damage described in this case. I am inclined to think the trouble is due to a combination of Red Spider, dry weather and probably poor cultivation. By way of remedy I should advise removing at once the old canes which have fruited this year and will, therefore, die next year. This will give the younger canes a chance to get more food and so to thrive better. Probably strawy manure thrown between the rows after the first shower while the ground is still moist would help to retain the moisture and so keep the plants healthier. As to spraying, it is not likely that it could be done thoroughly enough to kill more than 50 per cent. of the spiders. If spraying is done lime-sulphur would be the best substitute, and should be diluted in proportion of 1 gallon to 70 gallons of water. I fear the sickly foliage would be burned by any greater strength. Spray upwards to hit undersurface.
L. C.

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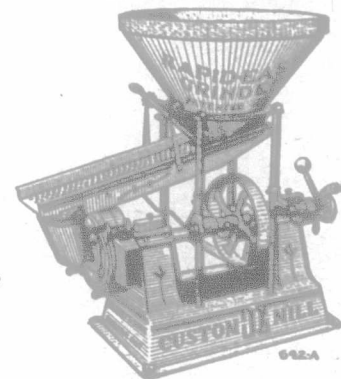
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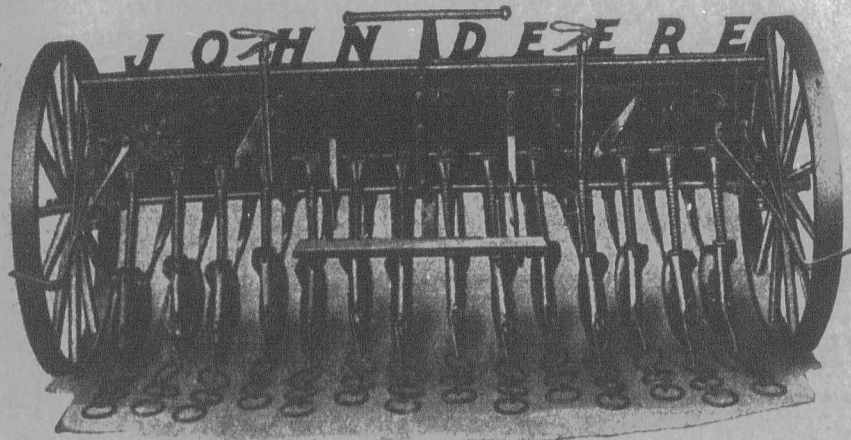
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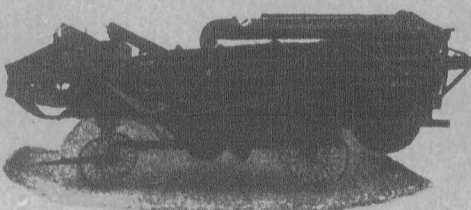
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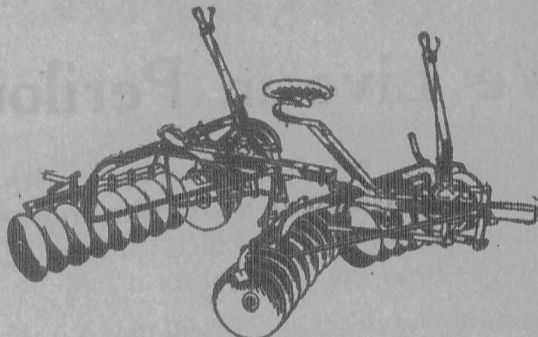
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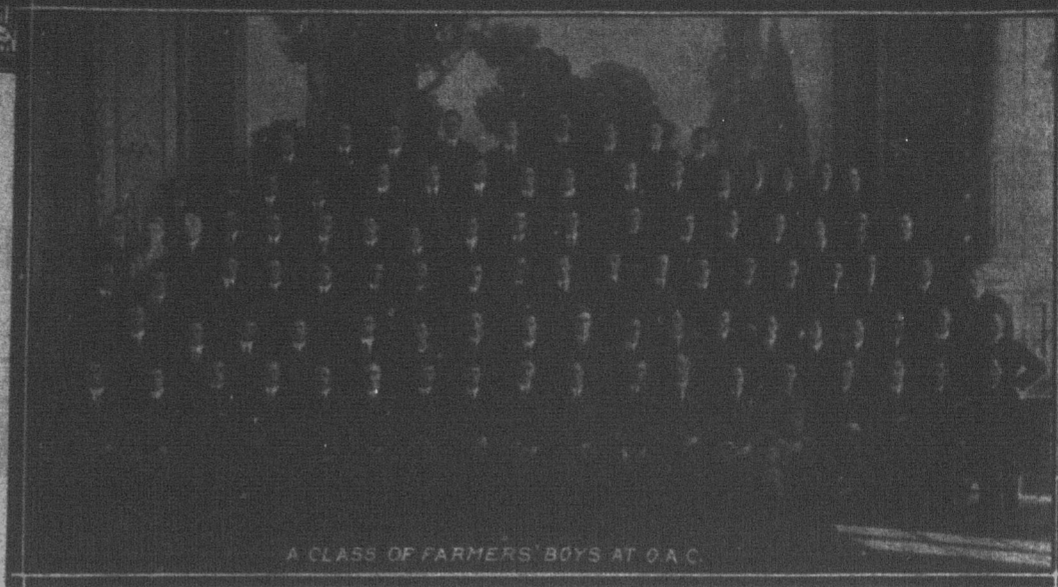
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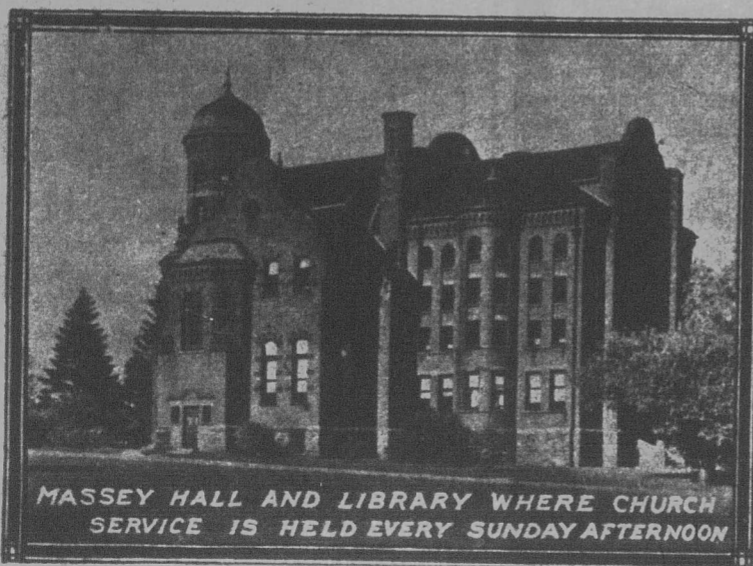
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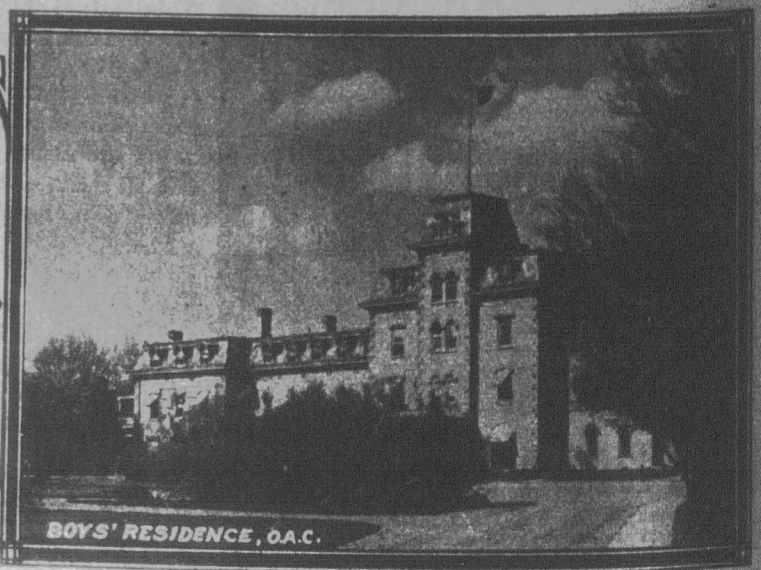
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