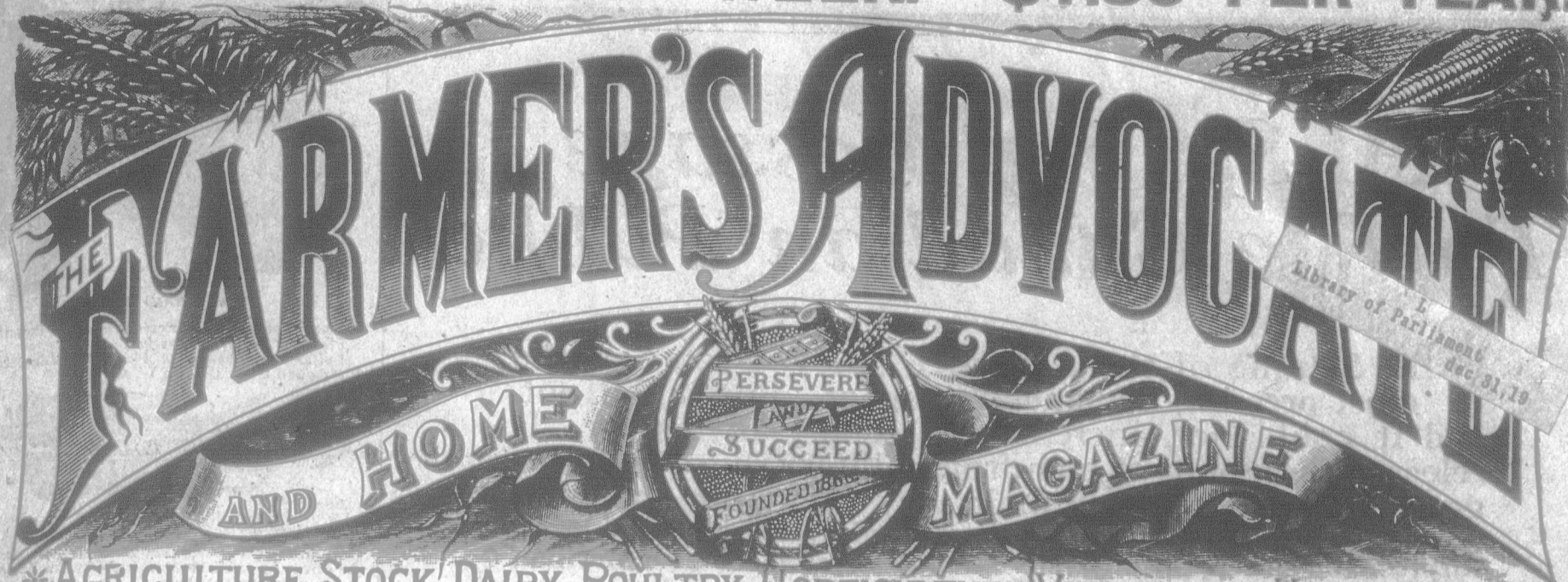


FEBRUARY 27, 1919

PUBLISHED EVERY WEEK. \$1.50 PER YEAR.



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

ENTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875.

LIV.

LONDON, ONTARIO, MARCH 6, 1919.

No. 1380

FOR YOUR
Bread, Cakes and Pies
 you will find

PURITY
FLOUR

(Government Standard)

thoroughly dependable

"More Bread and Better Bread and Better Pastry"

Western Canada Flour Mills Co., Limited

HEAD OFFICE—TORONTO, ONTARIO

Canada Food Board License Nos.
Cereal 2-009—Flour 15, 16, 17, 18

"Purity Oats makes Better Porridge"

A Spring Message To The Canadian Public

THE Signing of the Armistice relieved some of the most pressing demands for shoes. But it did not, and it could not, increase the supply of leather. It released thousands of men from military duty, but only gradually will they find their way back into their old occupations. So until an actual shortage of leather is turned into a surplus, and the supply of labor becomes somewhere near normal, we cannot expect any marked change in conditions, and the price level must continue high.

Leather is not a product of manufacture, but of natural growth. It takes time to produce a skin, and no process of "speeding up" will hasten it. The demands of the war, and the destruction of war, so depleted the world's stock of leather that, as we told you last fall, it was a big problem to produce enough good quality shoes to go around. Now we must simply wait for a new supply of leather to grow.

Labor is another problem which will take time to solve. Many men, fresh from life spent largely out-of-doors, will not go back to factory work again. Many others bear honorable wounds which unfit them for it. Here again, we expect no immediate return to normal conditions.

So in this, our Spring message to the Canadian public, we say:—

"Prudence in buying is still necessary. You can help to bring about more normal conditions if you will continue to exercise it. Buy for service and see that you get REAL VALUE for your money.

"And now especially you should see that the manufacturer's trade-mark is stamped upon the shoe you buy. Unbranded shoes may be reduced in quality to make the price seem low—with the end of the war as a plausible excuse. But no manufacturer will jeopardize his reputation by stamping his trade-mark upon a product which he is ashamed to acknowledge. Remember this, and look for the trade-mark. It is the best assurance you can have of real value."

Get This Booklet

We have prepared a booklet—"How to Buy Shoes"—which we think will help you. It contains advice which you will find of value, whether you buy A. H. M. Shoes or not. We shall be glad to send you a copy with our compliments if you will address our head office at Montreal.

AMES HOLDEN McCREADY

"Shoemakers to the Nation"

LIMITED

ST. JOHN MONTREAL TORONTO

WINNIPEG EDMONTON VANCOUVER

When you buy Shoes look for—



—this Trade-mark on every sole

(31-A)

The HYLO SILO

THE everlasting silo—yields 100% profit on the investment every season—sweet, fresh, ensilage down to the last forkful.

Exclusive patented features of great value—specially selected, important material of the highest quality, and careful workmanship, explain why the Hylo is the choice of the most progressive and prosperous farmers in each community.

Write for free silo book today.

GILSON MFG. CO. LTD
239 York St. Guelph Can.



"Goes Like Sixty"

This Engine Will Cost You Nothing

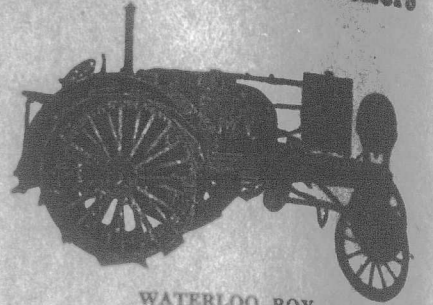
You need an engine—get a Gilson on our new, easy-payment plan, and it will pay for itself. You have the work for it to do this Fall and Winter, help is scarce and high-priced—save yourself a lot of worry and enjoy that "feeling of security" which is such a definite part of the staunch, reliable Gilson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

Gilson Engines have long enjoyed an indisputable reputation 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

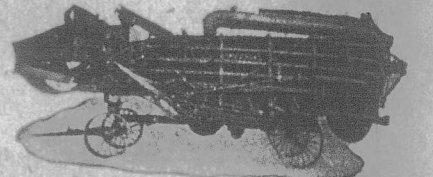
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WATERLOO BOY

The Simplest, most Accessible, most Powerful 3-Plow Tractor on the market. Suitable for hauling 3 Plows, Threshing, Silo Filling and General Farm Work.



Individual Farmers' Threshers, suitable size to be driven by small Tractors and Gasoline Engines. Do your own threshing. Keep your farm clean and save expense.

Write for free catalogue, prices and any information wanted.

THE ROBT. BELL ENGINE & THRESHER COMPANY, LIMITED
Seaforth, Ont.

Also Steam Tractors, and large size.

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Seed Potatoes

NO. 1 STOCK

Won first prize in field crop competition for the past two years in this, the best potato-growing district of Ontario, Erin Township. Price in ten-bag lots, \$2.00 per bag; in less amounts \$2.25.

Marquis Wheat.—Clean and heavy. Price in ten-bus lots, \$2.40; in less amounts \$2.50.

O. A. C. No. 72 Oats.—In ten bus lots, \$1.00 per bus; in larger lots \$1.10 per bus. Satisfaction guaranteed.

Bags, cotton, 55c, and potato bags, 15c extra.

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O.A.C. No. 72 Oats, in field crop competition.

Also winner of two firsts at Ottawa Winter Fair, Prize winning O.A.C. No. 21 Barley at Guelph and Ottawa. Both grown from registered seed under rules of C.S.G.A. Also a small amount of Marquis Wheat, common White Pea Beans (Early Maturing) and Alsike. Samples and price on request.

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Zurich, Huron Co., Ont.

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Canadian-grown seed Corn.

Your money back if not satisfied.

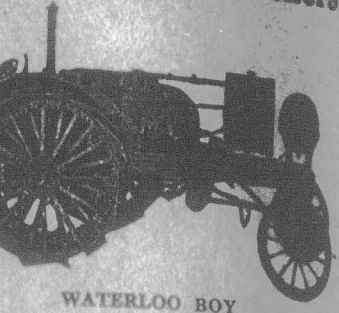
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SEEDS

A quantity of No. 2 Alsike Clover Seed, grown in Haldimand County. An attractive price will be quoted to intending purchasers.

Parkinson Bros. R. R. 5, Hagersville, Ont.

tractors and Threshers



WATERLOO BOY

Simplest, most Accessible, most Powerful Tractor on the market. Suitable for hauling, Plowing, Threshing, Silo and General Farm Work.



Individual Farmers' Threshers, suitable size for small Tractors and Gasoline Engines. For own threshing. Keep your farm clean and free of expense.

For free catalogue, prices and any information wanted, write to THE ROBT. BELL ENGINE & TRACTOR COMPANY, LIMITED, Seaforth, Ont.

Also Steam Tractors, and large size.

GREEN MOUNTAIN

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NO. 1 STOCK

Best prize in field crop competition for two years in this, the best potato district of Ontario, Erin Township. In ten-bag lots, \$2.00 per bag; in less than ten-bag lots, \$2.25.

Wheat. Clean and heavy. Price per bus. lots, \$2.40; in less amounts \$2.50.

C. No. 72 Oats. In ten bus. lots, \$1.10; in larger lots \$1.10 per bus. lot. No return guarantee.

Bags, cotton, 55c, and potato bags, 15c extra.

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FIRST PRIZE

C. No. 72 Oats, in field crop competition.

Winner of two firsts at Ottawa Winter Fair, and O.A.C. No. 21 Barley at Guelph, Ont. Both grown from registered seed of C.S.G.A. Also a small amount of Wheat, common White Pea Beans (aturing) and Alsike. Samples and prices on request.

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Canadian-grown seed Corn. Your money back if not satisfied.

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SEEDS

Quality of No. 2 Alsike Clover Seed, grown in Sand County. An attractive price will be given to intending purchasers. Write to Bros. R. R. 5, Hagersville, Ont.

Engine Will Cost You Nothing

Need an engine - get a Gilson. New, easy-payment plan, and pay for itself. You have the power for it to do this Fall and Winter. It is scarce and high-priced - feeling of security which is Gilson Engine.

Reputation for dependability, power, and more attractive proposition for those who have been buying have been buying Gilson Engines at remarkably low prices. State what size you want.

100 York St., Guelph, Ontario

Published by The Farmer's Advocate.

Don't forget the cost of labor

If you figure up your fence and leave out the labor cost you will be away out.

You have to pay your help.

Your own time is worth money.

Then, when we give you a fence that you can put up in shorter time and with less help, we save you money. In other words, we give you a lower price on your fence.



The boy and you can set as many tubes in a day as three men and a boy can set cedar posts.

The Standard Fence built with Standard Tubes is better than any cedar post fence ever made.

Remember, This is Standard Fence

It is no new untried fence. You must have heard about Standard Fence. And you never heard anything against it.

In 14 years of trading with farmers we have never sold a poor fence. That won a good name for Standard Fence. That won a big market with the farmers and built a great fence institution.

Big Production Saves Cost

When you make only one grade of fence and sell a lot of it you naturally get the cost down. Now Standard Fence is sold at as low a figure as many a fence that is not as good.

It is Guaranteed

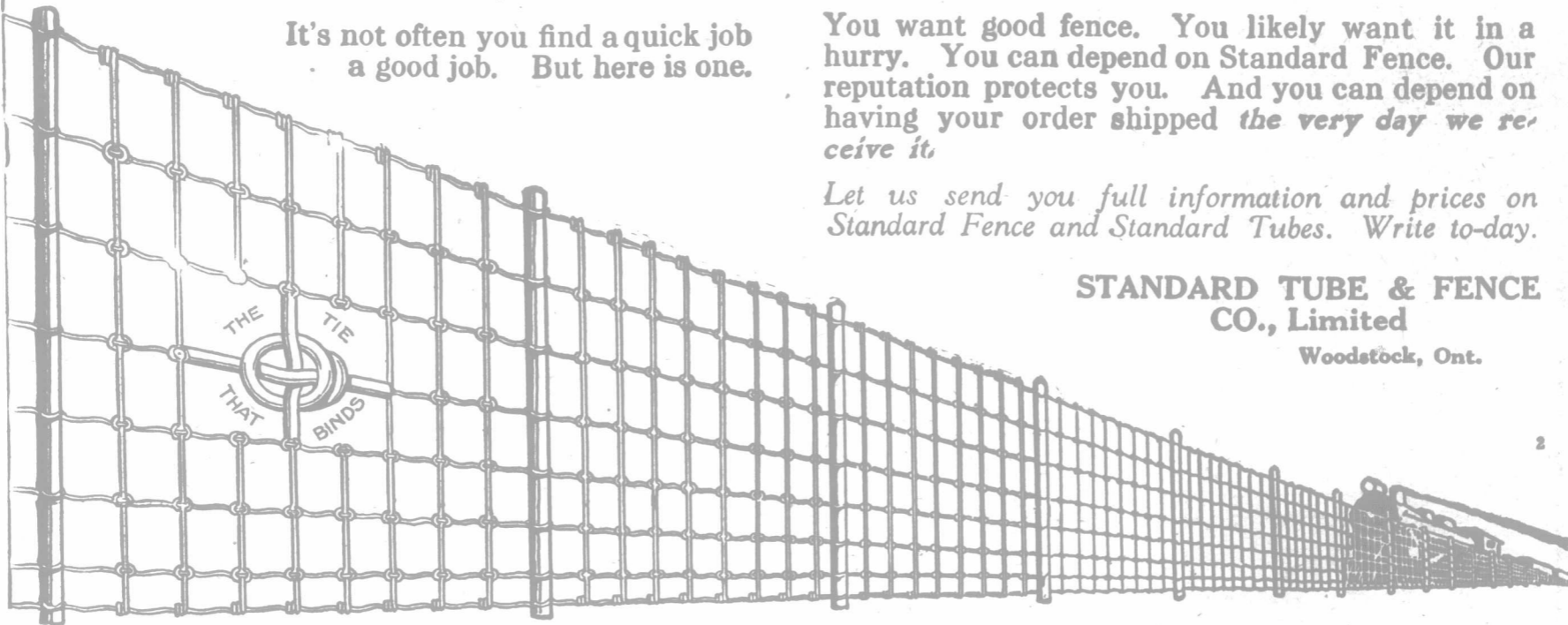
Back goes your money if you find we don't deliver what we promise. Standard Fence is full No. 9 gauge, no skimping, no monkey business. It is well-made and well-galvanized. We guarantee it.

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You want good fence. You likely want it in a hurry. You can depend on Standard Fence. Our reputation protects you. And you can depend on having your order shipped *the very day we receive it*.

Let us send you full information and prices on Standard Fence and Standard Tubes. Write to-day.

STANDARD TUBE & FENCE CO., Limited
Woodstock, Ont.



THE TIE THAT BINDS

STANDARD FENCE

Canuck Spraying Outfits

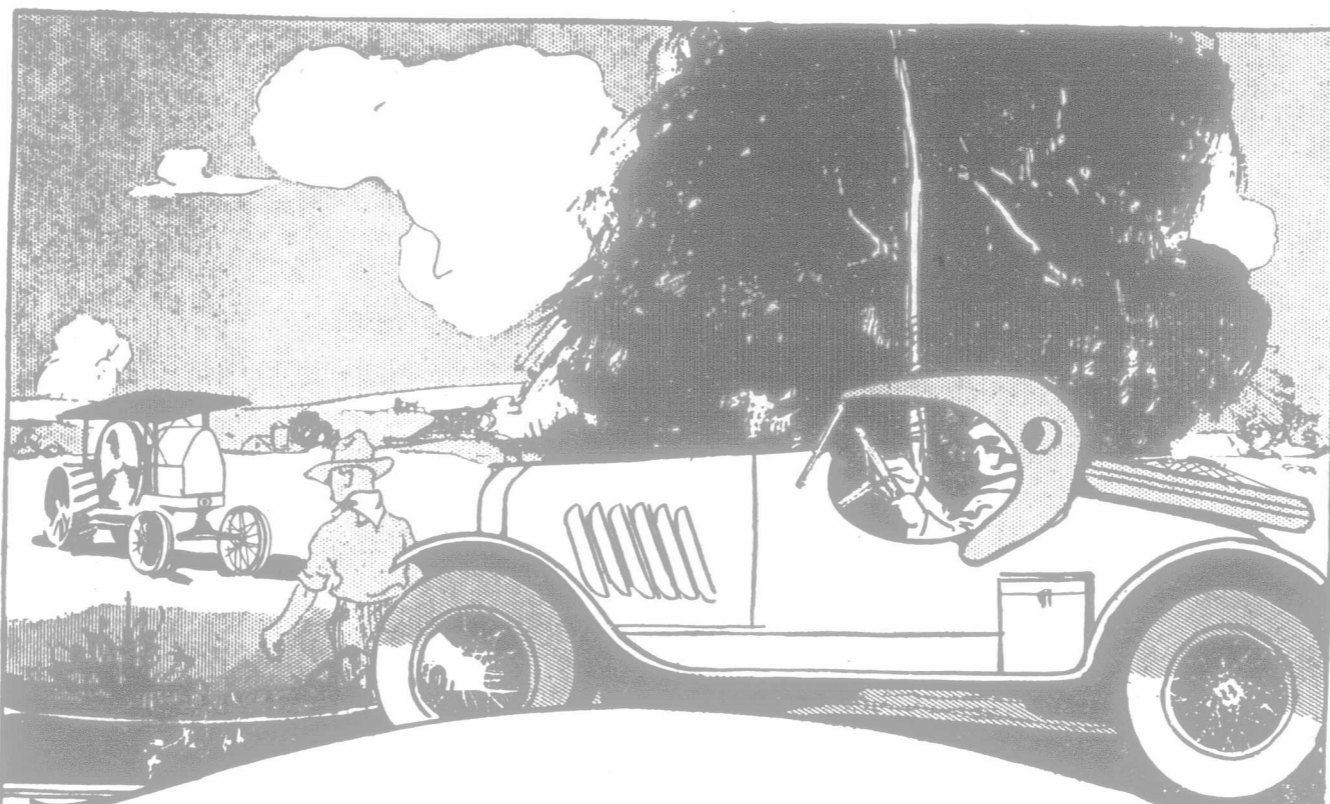
DESIGNED TO MEET THE REQUIREMENTS OF THE AVERAGE FARM OR ORCHARD BUT COMMONLY USED EVEN IN LARGEST ORCHARDS.

Write for descriptive circular and our Special Spring Offer

The engine on this outfit can be detached in a few minutes when it is available for a score of uses around the farm—driving the Cream Separator, Churn, Washing Machine, Sawing, Pumping, etc.

Get the Lister 1919 Catalogues on Lister Engines and Grinders, Lister Silos and Silo Fillers, Lister Milking Machines, Melotte Cream Separators, Avery Tractors.

R. A. Lister & Co., (Canada) LIMITED
DEPT. G. TORONTO



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You don't waste time for repairs if you lubricate your car, truck and tractor with Polarine. Polarine kills the friction that grinds away engine life. When the engine runs fast, heat runs high. A poor oil with a low burning point breaks down in body—separates, gums, ceases to lubricate properly. Friction then gets busy, wear is speeded up, and repairs are soon needed.

Polarine keeps its body at highest engine speed and heat. It films over friction surfaces with continuous, unbroken lubrication. It doesn't let power escape from

the cylinders—burns with little carbon, has no acid or foreign matter to impair engine efficiency.

Two grades—Polarine and Polarine Heavy. In barrels and half barrels, and one-half, one and four-gallon sealed cans. Polarine for sale by good dealers everywhere.

Ask the Imperial Oil Man to advise you regarding the lubrication of your car, truck and tractor.

Write for Polarine book on Automobile Lubrication.

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FRICION REDUCING MOTOR OIL
"Makes a good car better"

IMPERIAL OIL LIMITED
Power · Heat · Light · Lubrication
Branches in all Cities



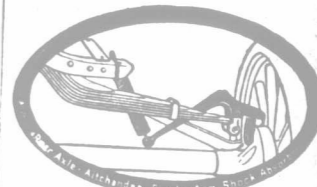
Make Your Ford Ride Like a Limousine

YOU cannot put any accessory on your Ford car that will add more to your pleasure and convenience in riding, or save more wear and tear on the car itself, than a set of

H&D SHOCK ABSORBERS

"Make Rough Roads Smooth"

This is the original cantilever-principle type, protected by Canadian Patent 172892—the logical shock-absorber for Ford cars. Easy to attach. No holes to bore. Weight per set, 20 lbs.



Single Arm Type, Set of Four \$10



Twin Arm Type, Set of Four \$12

These will save your springs; lengthen the life of your tires; increase your comfort in riding and earn their cost in a season. Over 200,000 in use to-day. Remit by Money Order or Postal Note. Use them for 30 days, then if not satisfied with your purchase, send them back and we'll refund your money.

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LONDON ONTARIO



Crushes the Clods

cuts, levels, and turns the soil twice—all in one operation. That's the way "the coulters do the work" when you use the

"Acme" Pulverizing Harrow

Works deep into the soil leaving it compact below and with a nice mulch on top. Light draft and comfortable seat. Endorsed by Experiment Stations. Sizes 3 ft. to 17 1/2 ft. wide. Send today for our new free book, "The Acme Way to Crops That Pay."

Bateman-Wilkinson Co. Limited
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No. 23 81-2 ft. Wide

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PRICE OF SAW BLADES F.O.B. FACTORY			
20	\$5.00	26	\$7.75
22	5.75	28	9.00
24	6.60	30	10.00

You can order direct from this list, saving both time and money. Simply mention diameter of blade with size of hole wanted, and remit with your order. I ship promptly.

My Catalogue, "The Heart of the Farm," illustrating Lundy Oil Engines, Saw Frames, Grain Grinders, Etc. sent on request.

A. R. LUNDY,
255 KING STREET WEST TORONTO

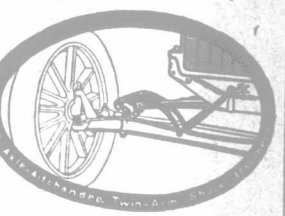
Make Your Ford
Like a
Housine

YOU cannot put any accessories on your Ford car that add more to your pleasure and convenience in riding, or more wear and tear on the car itself, than a set of

H&D
SHOCK ABSORBERS
"Make Rough Roads Smooth"

This is the original cantilever-type, protected by Canadian Patent 172892—the best shock-absorber for Ford cars. Easy to attach. No need to bore. Weight per set,

Single Arm Type, Set of Four \$10



These will save your springs; extend the life of your tires; give you comfort in riding; and return their cost in a season. 200,000 in use to-day. Buy by Money Order or Note. Use them for 30 days. If not satisfied with your purchase, return them back and we'll return your money.

W. Wilcox Canadian Co. Limited
103 Chelsea Green ONTARIO



Turns the Clods

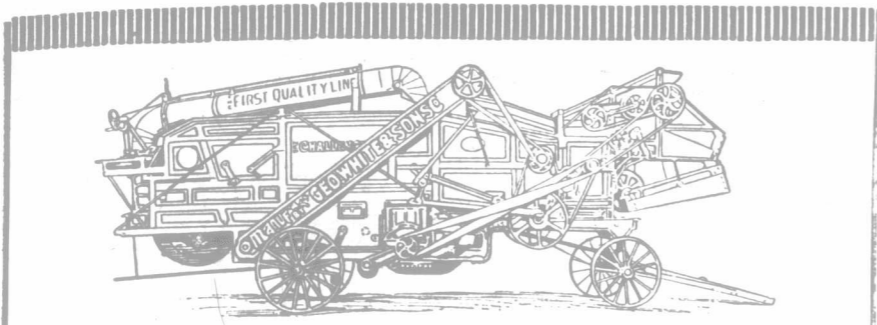
and turns the soil twice—all in one pass. That's the way "the coulter" when you use the Pulverizing Harrow.

61-2 ft. Wide

BLADES

BLADES F.O.B. FACTORY		
200	26"	\$7.75
75	28"	9.00
60	30"	10.00

R. LUNDY, TORONTO



What does a breakdown cost?

Threshing is a short-season business. Every day counts. If you miss a day or two, or even part of a day during the threshing season, you lose a part of your profits, with no chance to make it up again.

But that's only one loss. You have a gang of men on high wages. They are idle if you have a breakdown.

Then there's the cost of the repairs.

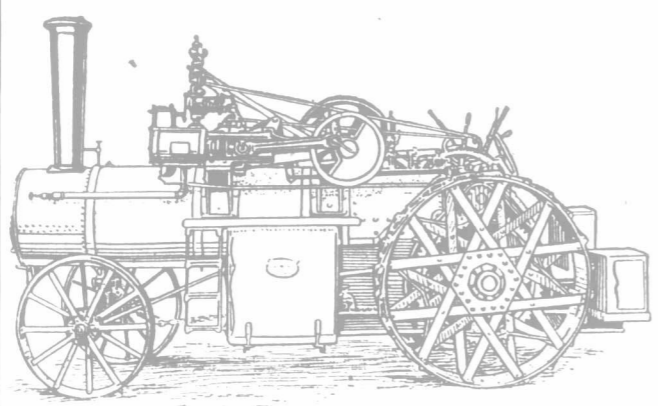
Altogether, breakdowns are very expensive for a thresherman. That's why it pays to get good machinery at the start, and that's why we build our machines with such great over-strength in every part. That's why we choose the highest grade of material. That's why we are so particular about the workmanship that goes into "The First Quality Line."

For two generations we have made a specialty of Threshing Machinery, and have won the reputation of producing high-grade machinery. It is to your interest to see the White Threshing Machines and White Tractors before you make your investment.

Full information and descriptive catalogue will be sent on request

The Geo. White & Sons Co., Limited

Makers of the White-Allwork Kerosene Tractor



LONDON, ONT.
Moose Jaw, Sask.
Brandon, Man.
"THE FIRST QUALITY LINE"

See that curve?

THAT curve in the lance of the O-K-Spra takes the place of the curve in your back that you have when you are using an ordinary sprayer to get under the leaves. That curve enables you to reach the most out-of-the-way spots.

On the tip of the curve is our "efficiency" non-clog nozzle with strainer shaped like a soldier's steel helmet, so that the particles fly off instead of clogging; needs fewer cleanings than any other nozzle. If you want the most effective, easiest to handle, surest and quickest sprayer of all get an

O-K-SPRA

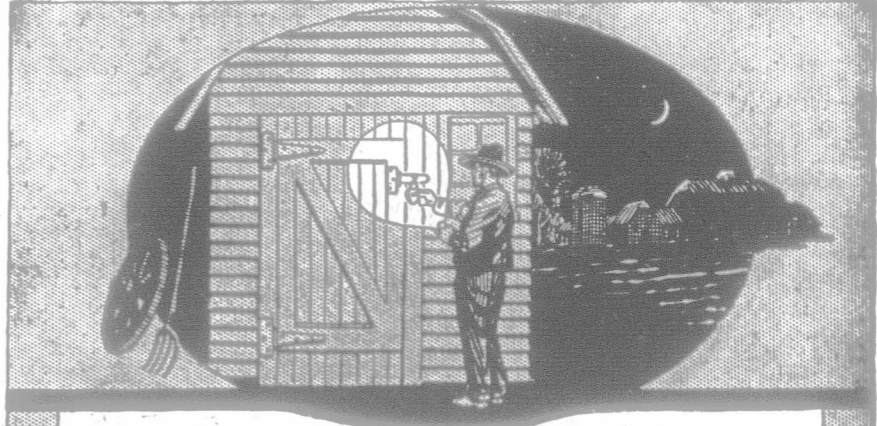
The O-K Canadian Two-Row Sprayer

is easily pushed by hand like a wheelbarrow and effectively sprays two rows at a time, adjustable for both width and height of rows; solution is kept stirred; the discharge pipe may be detached for white-washing, spraying trees, cleaning buggy or motor car, etc. Sturdily built for long service.

Get a sprayer NOW or you may "put off" securing it when your busy time comes. It may save you many times its cost. Should the bugs get ahead of you, think of your losses! Use it as a blight preventative too, and for spraying trees.

Write for literature giving full particulars of these, and also 4-row sprayers, with valuable information about mixing spraying materials.

Canadian Potato Machinery Co., Limited
Street No. 22 Galt, Ont.
Makers of O-K Potato Planters and Diggers



LIGHT—WHEREVER NEEDED

Carry it with you—a Reliable Flashlight. Use it indoors and out—wherever darkness makes seeing and working difficult.

You can direct the brilliant rays of the Reliable Searchlight with bullseye accuracy. You release a flood of bright light as quickly as pulling a gun trigger. No danger of explosion—no possibility of extinguishing by wind or rain. There are a thousand uses for Reliable Searchlights inside the house and out—in barn, garage and other outbuildings—any place.

Reliable Tubular Searchlights are made of metal enameled in red, brown, blue and green—also fibre and metal flashlights in all standard sizes and styles.

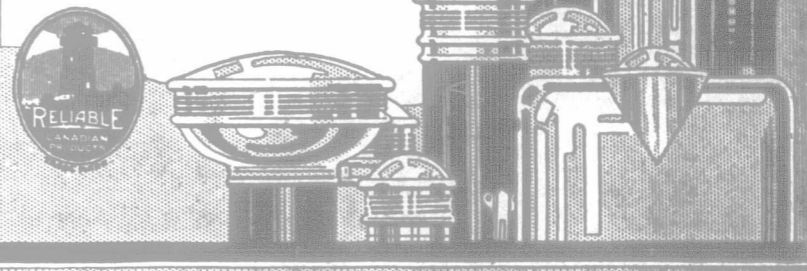
We manufacture a complete line of "Lively and Lasting" Reliable Dry Batteries for household uses, gas engines, automobiles, trucks and motor boats, and ignition unit for telephones—all fresh Canadian-made.

Ask a Reliable dealer to show you Reliable products.

DOMINION BATTERY COMPANY LIMITED
Toronto, Canada

RELIABLE
TRADE MARK
Canadian Products

"Lively and Lasting"



SAVE TIME—LABOR—MONEY—With Wind Power

The wind is free. Put it to work on your farm. It will cut your chore-time in half—save you labor and time—make money for you. It will pump and carry the more than a ton of water used every day on an average farm.

A Toronto Windmill will put the wind to work on your farm. Not in the old-fashioned way. Toronto Windmills are modern—big, strong, efficient, requiring little attention, costing nothing to run, working quietly all the time.

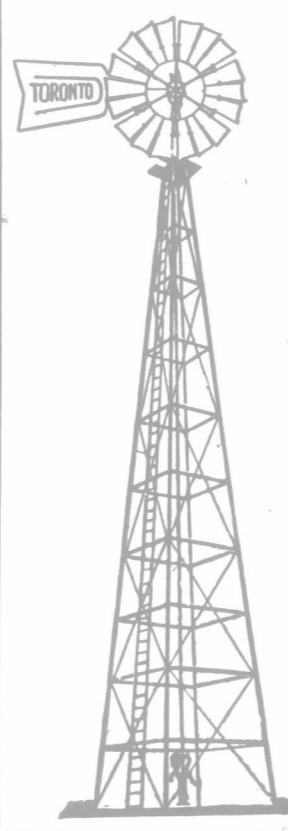
Toronto Pumps and Toronto Water Systems complete a real water service. Gives you all the water you want under pressure at taps everywhere on the farm.

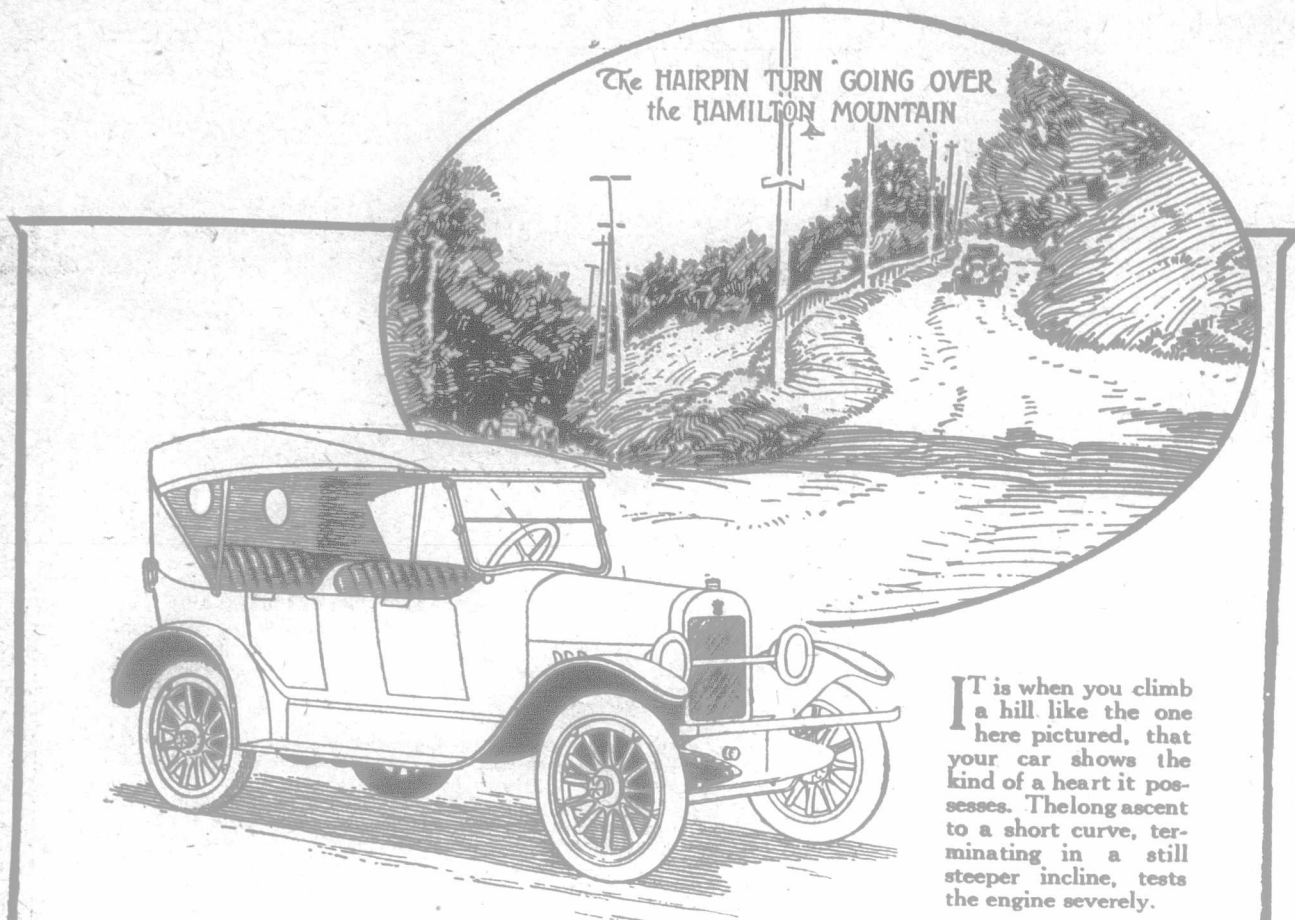
Toronto Pumps and Water Systems are also built for use with gasoline or electric motors. We have some mighty interesting booklets on Windmills, Pumps and Water Systems. We'll send these free to any farmer who sends us his name and address.

ONTARIO WIND ENGINE & PUMP COMPANY, LIMITED
Atlantic Ave., Toronto
Montreal Winnipeg Regina Calgary

ONTARIO WIND ENGINE & PUMP CO. LIMITED

TORONTO





It is when you climb a hill like the one here pictured, that your car shows the kind of a heart it possesses. The long ascent to a short curve, terminating in a still steeper incline, tests the engine severely.

The Briscoe Triumphs on Severe Hill Tests

The average car—slowed down to make a curve half-way up a hill—will not "pick up" again on the final ascent. But the Briscoe will. The Briscoe Motor responds to your call for a spurt—and up, up, up you go—a steady flow of power answering your foot pressure on the gas lever—and you finish that long climb triumphantly "on high."

The efficiency of the Briscoe Motor has been demonstrated in several ten-day, non-stop test runs, in one of which a record of over 29 miles to the gallon was established. In less spectacular fashion, the Briscoe Motor is proving its economy and efficiency by year-in, year-out service, on all sorts of roads, and under all sorts of conditions.

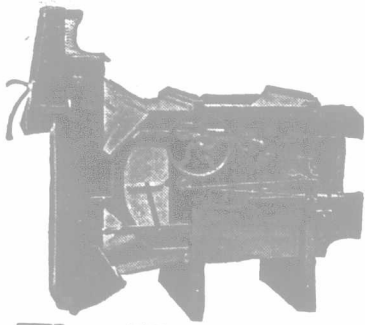


BRISCOE PRICES			
Sedan	\$1,950	Standard Touring	1,225
Special Touring	1,350	Roadster	1,225
All F.O.B. Brockville. Prices subject to war tax.			

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Liverstone Bros.
 97 King Street West

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The Kline Mill

Sold at Auction after Inventor died, when new ones could be got, at Twice the Price of new one To-day. The Public though they would not get any more Kline Mills, in vicinity of Beeton and near towns. It is the only mill that weighs and grades grain. In separating wild oats has no comparison. Capacity One Hundred bushels an hour; also power attachment. Easiest mill to turn made. Write for particulars.
Kline Fanning Mill Co., Beeton, Ontario.

A splendid Guide to Success
 in Garden or Field.....

Successful Since 1856

Our 1919 catalogue is yours for the asking. Write today—it is Free

SIMMERS' SEEDS MEAN SUCCESS

Faith in your seeds means faith in your seedsmen. Our 64 years of unbroken success speaks for itself

J.A. SIMMERS LIMITED, TORONTO.

Bulbs ... SEEDS ... Plants

CORRECT YOUR SOIL WITH Beachville White Lime

If your soil is not as fully productive as it should be, it may be over-acid, and an application of BEACHVILLE WHITE LIME will produce wonderfully beneficial results in your crops.

Our Lime-stone is the highest grade in Canada. Write for free folder containing information you should have.

Beachville White Lime Co., Limited
 Beachville, Ontario

SEEDS

Grown in the County of Haldimand

Our County took First Prize at Guelph Winter Fair this season on Red Clover, Alsike and Alfalfa.

These prices good till next issue of this paper, as long as our stocks last.

Red—No. 1	\$28.00
Red—No. 2	26.50
Alsike—No. 2	18.50
(No. 1 Purity)	
Timothy—No. 2	7.25
(No. 1 Purity)	
Timothy—No. 3	6.25
Alfalfa—No. 2 and No. 3	24.00
(Is home grown, Ontario Variegated)	

Bags are 60c. each.

Seed Peas—Golden Vine	\$ 2.50
Flax Seed	4.25

These prices are per bushel, freight paid on purchases of three bushels or over. Cash must accompany order. If seeds does not satisfy on arrival, ship back at our expense. We can highly recommend our grade of No. 2 (No. 1 Purity). Ask for samples.

The Caledonia Milling Co., Limited
 Caledonia, Ontario
 (Canada Food Board License No 87)

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TREES, SHRUBS, ROSES IN VARIETY.

Reliable Customers Say So. Filling orders over 65 years. Direct to Planters. No Agents. Send for Price List.

A. G. HULL & SONS
 St. Catharines - Ontario

Strawberry Plants

The best varieties viz. Williams Improved, Senator Dunlap, Pokom ke, Parson's Beauty, Glen Mary, Three W's, Arnot Stephen's Champion Sample etc. \$5.00 per thousand or \$1.00 per hundred. Everbearing varieties \$1.50 per hundred.

WM WALKER
 PORT BURWELL - ONTARIO

SEED CORN

Address
IRA L. GRAHAM,
 Windsor, Ont., Essex County.

Seeds—Haldimand Grown—A quantity of Medium Red Clover Seed, Government grading, will be given on application. An attractive price will be quoted to prospective buyers. Address

W. D. LINDSAY
 Hagersville, Ont.

Reg. O.A.C. No. 72 Oats—Winning sweepstakes at Lambton's Winter Fair. White, pure and plump, with 99% germination; 400 bus.; Government inspected and sealed. Second germination at \$1.45 bus. while they last.

Keith R. Hillier, R.R. No. 1, Camlachie, Ont.—A quantity of select Early Leaming, Longfellow, Wisconsin No. 7 and White Cap Yellow Dent. A card will bring full particulars.
GEO. B. LANGFORD, Kent Bridge, Kent Co.

FOUNDED 1866

CORRECT YOUR SOIL WITH Beachville White Lime

If your soil is not as fully productive as it should be, it may be over-acid, and an application of BEACHVILLE WHITE LIME will produce wonderfully beneficial results in your crops.

Our Lime-stone is the highest grade in Canada. Write for free folder containing information you would have.

Beachville White Lime Co., Limited
Beachville, Ontario

SEEDS

In the County of Haldimand

County took First Prize at Winter Fair this season on Red Alsike and-Alfalfa.

Prices good till next issue of paper, as long as our stocks last.

- No. 1 \$28.00
 - No. 2 26.50
 - No. 2 (No. 1 Purity) 18.50
 - No. 2 (No. 1 Purity) 7.25
 - No. 3 6.25
 - No. 2 and No. 3 24.00
- (All grown, Ontario Variegated)
Bags are 60c. each.

Golden Vine \$ 2.50

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Haldimand Grown—A quantity of medium Red Clover Seed, Government grading, will be given on application. Price will be quoted to buyers. Address
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er, R.R. No. 1, Camlachie, Ont.—A quantity of Select Early Leaming, Longfellow, Wisconsin No. 7 and White Cap. A card will bring full particulars. G.FORD, Kent Bridge, Kent Co.

The Farmer's Advocate and Home Magazine

PERSEVERE AND SUCCEED

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LIV.

LONDON, ONTARIO, MARCH 6, 1919

1280

EDITORIAL.

It is said that Roumania wants beans. We can supply her.

During the mild days of March is a favorable time to wash, oil and repair the harness.

If short of pasture land sow a few acres to oats and clover to be pastured early in July.

One hundred hens to every farm is now the slogan and an export volume of 250,000,000 eggs is the objective. Biddy will have to speed up production this spring.

As a rule the sooner the grain is sown once the soil is dry enough to be worked the better the crop. Seeding may be on within the next six weeks; are you ready for it?

The Ontario Housing Committee could well prepare plans and specifications of cottages for the hired man on the farm. This would be doing considerable to solve the housing problem.

This has been a good winter for cutting wood. Is next winter's supply cut, split and piled beside the woodshed? The man with a large pile of good hard wood need not worry about coal shortage.

Fruit growers should get back to the old-time swing. Some of the local associations should be revived and new ones organized. We still have the orchards and vineyards but the industry has been drifting.

When you consider that the seed grain is ready to sow, run it through the fanning mill once more. There may be some small kernels there that will make as good feed as larger kernels but are not as suitable for sowing.

After almost half a century in public life Sir Wilfrid Laurier passed away without a stain on his character and without wealth. The example set by the late Chieftain should be emulated by the rising generation of politicians.

Because the price of clover seed is higher than usual should not cause less seed to be sown. Canadian farms would be better for having a good deal more clover sown each year. Clover is one of our best roughages for stock, besides being a soil renovator.

The Canadian Press dispatches the information that Daylight Saving will be re-enacted in Canada if it is continued in United States. Why our Government should follow the example of another country rather than meet the wishes of its own is beyond comprehension.

Do you remember that a number of the harrow teeth were broken and that a couple of bolts were missing from the cultivator when you went to hitch on to them at seeding time last year? Valuable time was lost making the necessary repairs. Have repairs made now and so be in readiness for the spring drive.

Those thinking of sowing sweet clover this spring should bear in mind that it is most valuable as a fertilizer or pasture crop. Anyone who can grow alfalfa successfully will find it superior to sweet clover as an all-round crop, but there are so many districts and so many farms where alfalfa will not grow that farmers are looking for something else. For the two purposes mentioned sweet clover will be found O.K.

Work for Agricultural Organizations.

It is well that we now have some well-established agricultural organizations to present the farmer's case and crystalize into brief form the demands of the rural population. Furthermore, while Parliament and Legislatures are in session there is need of some one to present the arguments of the rank and file and place them before Dominion and Provincial Governments in such a way as to impress upon legislators the fact that the majority are making a request. The Ministers of Agriculture in the various Governments must have the support of the people engaged in the industry they represent; otherwise it is like an advance of infantry without artillery preparation and support. The Federal Minister of Agriculture has said that the oleomargarine regulation will not be definitely settled until it is discussed in the House of Commons. This gives the National Dairy Council an opportunity to prove its worth by collecting data and presenting the case for the dairymen. If the Daylight Saving measure is again introduced all provincial and dominion agricultural organizations should combine at once to see that it is given a long hoist. These are only two of many questions which are likely to arise, and representative bodies should study proposed legislation and be prepared to oppose any objectionable features.

The proposed increase in express rates is still pending, and there is need of dairymen and fruit growers being very active in behalf of their respective industries. This matter comes under the jurisdiction of the Board of Railway Commissioners, and while representations have been made to that body there is need of action till the enquiry is finally and definitely closed.

There is another matter of more or less provincial concern, namely, the bean market. It has been reported that credits have been arranged whereby Roumania is to obtain \$25,000,000 worth of Canadian goods, and probably two-fifths of this output will be agricultural produce. Beans are mentioned amongst the list of commodities wanted by Roumania and if such be the case farmer's clubs and other local organizations in bean-growing districts should make a survey at once of the quantity of beans in their neighborhoods and be ready to effect a transaction if the opportunity presents itself.

Farmers all along the line must needs be awake and ready to cope with conditions as they arise. Legislation and markets have too long been left for others to play with and manipulate as they please. Farmers should throw their hats into the ring, link up with some good strong organization and fight a clean open battle for their rights. Agricultural organizations have a big program ahead but they can do little without the support of those for whom they are fighting. Sign up!

We Are Drifting.

We have plenty of mines in this country but we are not a nation of miners, and our aim should be to get away from it. We have been producing grain and have been called the "Bread Basket of the World," but that title should, in time, be changed to give us prominence as a nation of live stock producers. There is now a better market for live-stock products than there is for wheat, and this is our opportunity to branch out and establish ourselves in those markets where our future lies. Soon after the Armistice was signed there was evidence of some enthusiasm in official quarters but that is apparently subsiding. Spring will soon be here and farmers will be busy putting in their crops, and the live stock will be on pasture. It will be a poor time then to stir the country with an appeal for greater live-stock production and an improvement in our

stocks. Some program should be mapped out and presented to the people. The Government alone can effect nothing. The producers themselves are not in a position to devise ways and means of putting Canada on the map as headquarters for choice bacon and a source of good beef. There must be co-operation, and a Canadian National Live Stock Council was never so urgently needed as right at the present time. Producers could act through it to reach the Government, and the Government could act through it to reach producers. We are drifting in regard to this matter of expansion.

Sow Plenty of Clover Seed.

Red clover seed has reached an unprecedented price this spring, and many farmers are inclined to cut down somewhat on the acreage they seed down and on the amount of seed they sow per acre. Such a practice is not in the best interests of agriculture. The clover crop is one of the most important grown on the average farm, and in order to get a satisfactory catch a liberal amount of seed should be sown. It is unwise to cut the amount of seed per acre too low, as we believe that failure to get a satisfactory catch is frequently due to too light a seeding, and also to burying the seed too deeply. In a wet season the lighter seeding might give a good stand, but we do not know what the 1919 summer will be like. Consequently we should be prepared for all weather contingencies. Where clover is sown alone we believe that not less than eight or ten pounds per acre should be used, and twelve pounds would be preferable. Where four or five pounds of timothy and a couple of pounds of alsike are used per acre, the red clover could possibly be reduced to six pounds. An extra two or three pounds of red clover seed per acre may be made up for many times over by the difference in the crop the following year.

When purchasing clover or grass seed it is advisable to secure the best, and that which is free from weed seeds. Some of our most noxious weeds frequently grow in the clover field, and the seeds which are similar in size to that of clover are very difficult to remove. Weeds accumulate on most farms quickly enough without sowing them in the grasses and clover. We wish to emphasize that if good catches are to be obtained plenty of seed must be sown.

Get Ready!

February is past, and in March the land, in more southerly districts, frequently begins to show signs of readiness for the seeding. The winter has been shortened by the exceptionally mild weather, and ere long it will be necessary to pull out the cultivators and drills. In the meantime there may be blizzards and the mercury may creep down into the bottom of the thermometer for a spell; nevertheless spring will come in its natural and appointed time—Be ready. Being ready for seeding is almost equivalent to an extra man and a team of horses when the work is on. Have the grain cleaned and the grass seed bought. Go over the implements and make an inventory of the new parts needed and those requiring repairs. Follow this step to its logical conclusion and put the machinery in readiness for all springtime operations. Obtain a supply of seed corn with a good germination guarantee, and test it again to be sure of its vitality. Where possible and advisable haul out the manure and put it in piles or spread it on the fields. Make all plans regarding the kind of crops to be grown, and the acreage for each. The season may interfere with the program and necessitate alterations and adjustments, but unexpected circumstances never embarrass the individual who has something mapped out nearly so much as the one who was not ready.

The Farmer's Advocate and Home Magazine.

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The Constitution of the League of Nations Summarized.

BY ALLAN MCDIARMID.

On St. Valentine's Day, the 14th of February, the covenant of the League of Nations was read by President Wilson, before the members of the Peace Congress at Paris.

It is a pretty lengthy document and the majority of people will not take the trouble to read it through, although it is likely to be of importance to every man, woman and child that will be living on this earth in the years that are to come.

To get the nations of the world to co-operate; to guarantee peace between these nations; to control the conduct of Governments by international law, and insisting on scrupulous respect being shown all treaties made between organized peoples, this League is adopted.

Article 1. The High Contracting Parties (or Nations) will act through the meeting of a body of delegates. Also through the more frequent meeting of an Executive Council. The office of Permanent International Secretary will be established.

Art. 2. Meetings of the body of Delegates will be held at the seat of the League as occasion requires, for attending to matters with which the League is concerned. Each High Contracting Party will have but one vote, but may have three representatives at the meeting.

Art. 3. The Executive Council will be composed of representatives from Great Britain, the United States of America, France, Italy and Japan, and also from four other states which are members of the League. Meetings will be held at least once a year.

Art. 4. All matters discussed at these meetings will be decided by a majority vote of the representatives. The first meeting to be summoned by the President of the U. S. A.

Art. 5. The office of the Permanent International Secretary will be established at the seat of the League. The Secretary-General will act in his capacity at all meetings of the Delegates or Executive Council. The expenses of this Secretary's office to be borne by the nations, members of the League.

Art. 6. Representatives and officials, when engaged on the League's business, will enjoy all diplomatic privileges, and the buildings in which the meetings are held will be considered as being on neutral territory.

Art. 7. When States that have not signed the Covenant of the League of Nations wish to be admitted to the League it must be by the consent of two-thirds of the regular State Delegates. No state to be admitted unless it can give guarantees of its intention to fulfil

all its international obligations and to become subject to the League regarding its naval and military forces.

Art. 8. The nations of the League, through their Delegates, will take steps to reduce national armaments to as low a point as national safety will permit. The Executive Council will decide what military equipment and armament is reasonable in the case of each nation interested. The Executive Council will also advise in regard to the regulating of the manufacture of ammunition and war-instruments. It is agreed that there will be free interchange of all information in regard to military and naval programs.

Art. 9. A Commission will be appointed to inform the League if the provisions of the foregoing article are being carried out, and to advise on military and naval questions in general.

Art. 10. The League Nations undertakes to protect all states, members of the League, against invasion by any outside Power. In this case the Executive Council will advise as to what steps will be taken.

Art. 11. Any threat of war, whether affecting any of the League nations or not, is to be considered a matter of concern to the League, which will take steps to maintain the peace of nations. It is also considered the friendly right of any of the League nations to warn the League of any circumstances known to them that is likely to disturb international peace.

Art. 12. If any serious dispute arises between the League Delegates it is agreed that war will not be resorted to until three months after the questions involved have been submitted to arbitration, or brought before the Executive Council. And in any case they shall not declare war on any nation that submits to the award of the arbitrators.

Art. 13. It is agreed that when any dispute arises that it is likely can only be settled by arbitration, that the whole matter in connection be submitted to arbitration and that all concerned shall abide by the decision given. In case of refusal to so abide the Executive Council shall decide what action will be taken.

Art. 14. A permanent court of International Justice will be established which will try all cases that are suitable for submission to it.

Art. 15. Any dispute between states' members of the League which is not submitted to arbitration can be referred to the Executive Council, and it is agreed that the League will not go to war with any party that complies with the recommendations of the Council.

Art. 16. In case of any of the contracting parties disregarding their agreement, as under Article 12, it will be considered to have committed an act of war against the rest of the members of the League. This will mean the breaking off of all trade relations and other intercourse. The Executive Council will then recommend what military and naval forces each member of the League will contribute towards the suppression of the rebel nation. At the same time, mutual financial support will be in this case, a feature of the League program.

Art. 17. When a state member of the League has a dispute with a non-member, the non-member shall be invited to join the League, and when this is consented to the dispute is to be arbitrated as above. When not consented to the measures stated in Article 16 are to be taken. When both parties to the dispute refuse to refer the matter to the League the Executive Council will take such action as will prevent hostilities and bring about peace.

Art. 18. It is agreed that the League have supervision of the trade in arms and ammunition in the countries where this control is necessary in the common interest.

Art. 19. In regard to those colonies and territories that are, as a consequence of the war, no longer under the control of the nations that had sovereignty over them, it is held that the well-being and development of the inhabitants should be considered a sacred trust of civilization, and securities for the carrying out of this trust should be embodied in the constitution of the League. The best method of giving effect to this idea is in giving the education of these peoples into the hands of the advanced nations.

Art. 20. It is one of the objects of the League to secure fair and humane conditions of labor for men, women and children, both in their own countries and in the countries with which they have commercial relations, and with this in view, will establish a permanent Bureau of Labor.

Art. 21. It is agreed that provision will be made, through the League, for the freedom of movement and the equitable treatment of the commerce of all states, members of the League, this especially so in regard to regions that were devastated during the Great War.

Art. 22. It is agreed that all International Bureaux be placed under the control of the League.

Art. 23. It is decided that in future all international agreements or treaties shall be registered with the Secretary-General before they shall be considered binding.

Art. 24. It shall be the right of the body of delegates to advise the reconstruction of treaties which have become inapplicable, and to give notice of international conditions that are likely to endanger world peace.

Art. 25. The contracting parties to the League individually agree to accept the present Covenant as doing away with all obligations that are not consistent with the terms of said Covenant, and if they have become subject to such obligations they shall at once take steps to release themselves from same.

Art. 26. Amendments to this Covenant will be effective when agreed to by the States whose representatives compose the Executive Council, and by three-fourths of the states whose representatives compose the body of delegates.

Nature's Diary.

A. B. KLUGH, M.A.

Those who are interested in birds take a delight in welcoming the various species as they arrive from the South, and in order to aid them in their observations we this week present a table giving the earliest, latest and average dates of arrival of the spring migrants. This table is compiled from data accumulated by the members of the Wellington Field Naturalists' Club at Guelph, Ont., during eight consecutive years. The average dates will be correct for central Ontario, while the period between the earliest and latest dates will cover the time of the arrival of a given species practically wherever that species occurs in eastern Canada. The table brings out the fact that there is a great variation in the dates of arrival in different years, depending on the character of the season, and this difference is wider in the case of the early migrants than in that of the later ones.

Dates of Arrival of Birds at Guelph, Ont.

Table with 4 columns: Name of Species, Earliest, Latest, Average. Lists various bird species and their arrival dates in Guelph, Ontario, across eight consecutive years.

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Birds at Guelph, Ont.

Earliest	Latest	Average
Feb. 8	Feb. 27	Feb. 18
Feb. 15	Feb. 24	Feb. 22
Feb. 19	Mar. 10	Feb. 28
Feb. 15	Mar. 29	Mar. 9
Mar. 9	Mar. 29	Mar. 10
Feb. 19	May 2	Apr. 2
Feb. 8	Mar. 25	Mar. 9
Mar. 8	Mar. 23	Mar. 10
Mar. 10	Apr. 4	Mar. 12
Mar. 11	Apr. 5	Mar. 17
Mar. 11	Mar. 30	Mar. 15
Mar. 12	Apr. 24	Mar. 26
Mar. 23	Apr. 10	Mar. 26
Mar. 15	Apr. 5	Mar. 23
Mar. 15	Mar. 30	Mar. 17
Mar. 24	Apr. 15	Mar. 26
Mar. 23	Apr. 12	Mar. 28
Mar. 13	May 19	Erratic
Mar. 23	Apr. 16	Apr. 4
Mar. 19	Apr. 11	Apr. 6
Mar. 27	Apr. 24	Apr. 12
Mar. 23	Apr. 23	Apr. 7
Mar. 16	Apr. 17	Apr. 12
Mar. 20	May 5	Apr. 11
Mar. 24	Apr. 14	Apr. 9
Mar. 25	Apr. 23	Apr. 9
Apr. 6	Apr. 18	Apr. 17
Mar. 26	Apr. 24	Apr. 6
Apr. 10	May 6	Apr. 18
Apr. 2	Apr. 28	Apr. 11
Apr. 6	Apr. 27	Apr. 10
Apr. 15	May 3	Apr. 16
Mar. 30	Apr. 16	Apr. 6
Apr. 12	May 2	Apr. 15
Apr. 13	Apr. 18	Apr. 15
Apr. 14	Apr. 29	Apr. 23
Apr. 17	Apr. 25	Apr. 19
Apr. 16	Apr. 23	Apr. 16
Apr. 16	Apr. 28	Apr. 22
Apr. 21	May 6	Apr. 28
Apr. 16	Apr. 28	Apr. 20
Apr. 24	May 3	Apr. 27
Apr. 26	May 11	Apr. 29
Apr. 22	May 4	Apr. 29
Apr. 28	May 2	Apr. 29
Apr. 24	May 20	May 4
Apr. 24	May 16	Apr. 30
Apr. 28	May 12	May 4
Apr. 27	May 13	May 4
Apr. 29	May 6	May 4
Apr. 27	May 10	May 4
Apr. 24	May 10	May 4
Apr. 28	May 11	May 2
Apr. 28	May 10	May 2
May 1	May 11	May 2
Apr. 29	May 15	May 6
May 1	May 10	May 3
Apr. 29	May 9	May 4
Apr. 22	May 10	May 5
May 3	May 12	May 5
Apr. 30	May 11	May 5
May 5	May 17	May 12
May 4	May 25	May 10
Apr. 27	May 9	May 6
May 5	May 12	May 6
May 4	May 13	May 6
May 4	May 15	May 11
May 6	May 13	May 9
May 7	May 18	May 10
May 9	May 11	May 9
May 9	May 13	May 12
May 4	May 12	May 8
May 4	May 11	May 8
May 9	May 13	May 11
May 3	May 20	May 13
May 8	May 20	May 10
May 9	May 11	May 9
May 4	May 17	May 11
May 15	May 24	May 17
May 8	May 12	May 11
May 4	May 13	May 11
May 11	May 26	May 11
May 5	May 30	May 28
May 11	June 3	May 19
May 12	May 19	May 18
May 17	May 23	May 23

THE HORSE.

Some Common Leg Ailments.

The most common form of leg trouble in horses is "erythema," an inflammation of the skin; characterized in the early stages by local redness, heat, swelling and irritation. The redness can be noticed only in animals whose skin is white, but the other symptoms are readily recognized in horses of all colors. The terms used to express the disease differ according to the parts affected. When the trouble appears in the heels it is called "scratches" or "cracked heels;" when the greater part of the leg from the foot to the body is involved it is called "mud fever;" when the front of the hock is the seat it is called "sallanders," and when the trouble exists behind the knee it is called "mallanders."

Causes.—Some horses, notably those whose bone may be said to be beefy or round, are particularly predisposed to it, and require careful attention in order to avoid it. High feeding with little exercise also predisposes to an attack, but in many cases it appears without well-marked cause, doubtless due to some unexplained alteration in the blood. In the majority of cases, however, good care will prevent it, as it is usually caused by inattention to cleanliness, allowing horses to stand in damp stalls, when the heels frequently become damp or wet with liquid or semi-liquid manure; cold and heat operating alternately on the skin; wet, friction, dirt, pressure, debilitating diseases, plethora or poverty. Probably the most frequent cause is the habit of washing the heels and legs. During late winter or early spring, when it thaws during the day-time and freezes towards evening, horses, especially those with considerable long hair on their legs, come into the stable with water and slush frozen to the hair, and when the roads are muddy, even though there be no frost, an accumulation of mud will be present. In such cases it is common practice for the teamster (through mistaken kindness) to wash the frozen matter or mud off with warm water, and then stand the horse in his stall and allow the legs to become dry by the natural heat of the legs and the stable. Washing with warm water opens the pores of the skin, and a free secretion sets in, which, however, is suddenly checked by the cold air or probably drafts; the vessels of the skin thus become congested and subsequently inflamed, and if this practice be repeated a few times cracked heels is usually the result. Washing with cold water is not so bad, as the reaction is not so great, but the legs should not be washed at all unless the teamster decides to remain with his team and rub the legs with cloths or wisps of hay or straw until they become dry, in order to avoid the reaction mentioned. As this entails a large amount of both time and labor it is seldom done. The safer plan is to allow the horse to stand until the mud has dried, and then brush the legs clean, or when there is ice he should remove as much as he can by careful hand-rubbing, and allow the rest to drop off as melted by the heat of the legs, and when the hair becomes dry brush well to remove any tendency to mat, and also any dirt or foreign substances that may be present.

A fertile cause of that disease called "mud fever," a form that is hard to treat, is the practice of clipping horses' legs during cold weather. Suddenly depriving the animal of this natural protection in cold weather appears to cause a congestion of the vessels, which is followed by inflammatory action of the same and surrounding tissues, hence the disease. Horses that are to be clipped should be clipped before the weather becomes too cold in the fall, not later than the middle of November, else in the spring after danger of severe weather is past, say the middle of April. Spring clipping, in our opinion, is the better, as at this season the horse does not require the protection of a long coat, and, as he perspires much less without it, he will do more satisfactory work on less feed than his mate that is not clipped. Then again, as before stated, some horses are so predisposed to the disease under discussion, either from the peculiar quality of bone or other hereditary traits, that both feeding and want of exercise are liable to cause it. For this, as for all diseases, prevention is better than cure, and, if we recognize the causes mentioned as those that cause the disease, we can readily see the means of prevention with reasonable certainty. It is seldom the disease appears where reasonable preventive measures have been observed.

Symptoms.—The first symptoms noticeable are swelling, and tenderness to the touch, and a stiffness or lameness, which, with the swelling, usually disappear on exercise. After a time the skin cracks, when the soreness and lameness will increase, and there is a greater tendency to swelling. There will be more or less of a discharge from the cracks, and if intelligent treatment be not given, the discharge becomes fetid, over-abundant granulations (called proud flesh) appear, and the condition of the limb gradually becomes worse.

Treatment.—It is good practice to administer a purgative of 6 to 9 drams of aloes (according to size of patient) and 2 drams of ginger. This has a tendency to reduce general plethora and stimulate the circulation. Follow this with diuretics and alteratives as 2 drams nitrate of potassium and 1 to 1½ oz. Fowler's solution of arsenic twice daily for 4 or 5 days. The feed should be light, as hay, bran and a few raw roots. Very little grain should be given unless it is necessary to work the horse. Local treatment consists, if adopted in the early stages, in the application of an antiseptic, astringent and cooling lotion, as one made of one ounce each of acetate of lead and sulphate of zinc to a pint of water, applied freely 3 times daily. If cracks have appeared and the weather be warm the lotion should still be used, but if the weather be cold better results are usually

obtained from the use of the oxide of zinc ointment, or 1 part carbolic acid to 30 parts sweet oil, as the lotion is too astringent and drying. Ointments or oils should not be used in warm, dusty seasons, unless the horse is allowed to stand idle, as dust, etc., will adhere to the parts and aggravate the trouble. If proud flesh and a fetid discharge be present the parts should be dressed once daily with a caustic, as butter of antimony, applied with a feather, and poulticed with warm linseed meal with a little powdered charcoal added, applied freshly three times daily for two or three days and nights before using the lotion or ointment.

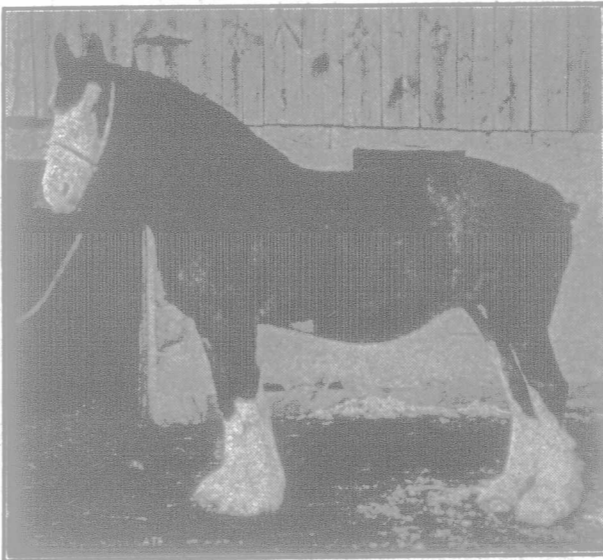
WHIP.

Quality in Horses.

BY DR. F. C. GRENSIDE.

There is no subject upon which there seems to be more diversity of opinion amongst horsemen than as to what constitutes "quality" in a horse. It is a term in very common use but if you ask a number of horsemen what they mean by it you are sure to get a variety of answers. One will say it means breeding; another an accentuation of all fine points; another magnetism; another, refinement of lines or perhaps a combination of some or all of these attributes. Some say that quality is recognizable, but indefinable and unexplainable.

The term "quality" is an abstract one, indicating a special attribute in an individual, just as being well-bred, well-conformed and possessing finish are attributes to some individuals. When one says that a horse has "quality," one means that he has a special attribute which may or may not be combined with any or all of the others mentioned. Of course, there are varying degrees of "quality," so that the term can only be used in a comparative sense. In the light classes of horses it is very often used synonymously with breeding. Certainly the more warm-blooded a horse is the higher the degree of quality he is apt to possess, but one may take two equally well-bred Thoroughbreds and find one showing evidence of the possession of a higher degree of quality than the other. So that breeding and quality do not mean the same thing. Neither does quality



A Combination of "Quality" and Substance.

signify the possession of symmetry, good conformation, finish or "class." A horse may be defective in any or all of these respects and still possess a high degree of "quality." He may be fiddle-headed, lop-eared, ewe-necked, sway-backed, flat-sided, slack-loined, cow-hocked and calf-kneed, and yet show much "quality."

Much confusion is caused by using the term "quality" synonymously with "class." Horses are spoken of as high-class, medium-class and so on, indicating the degree of excellence they possess for the purpose for which they are best suited. Two individuals can be taken as an example showing equal "quality" but one of them on account of much better conformation, more style and action, may be worth twice as much as the other. Consequently he is a higher-class individual, although the two are equal in "quality." So that "quality" and "class" do not mean the same.

If then, quality does not mean breeding or conformation or symmetry or finish or class, or a combination of any or all of these, what does it mean? It is an easier matter to explain what constitutes quality than it is to give a concise and, at the same time, comprehensive definition of what it is. It may not inaptly be defined as *fineness in contradistinction to coarseness, or as fineness of texture.* How frequently one hears a prospective purchaser say to a dealer: "He is a very nice horse, but very light in bone." The dealer almost invariably replies: "Yes, but his bone is of good quality" and still further endeavors to make the statement more emphatic by saying that the bone is so dense, so compact so ivory-like, that a cubic inch of it will weigh more than a cubic inch of some other horse that has indisputably more bone. It is a fact that the bone of some horses is much more dense or compact, and is, as the dealer expresses it, of better quality than that of some others.

What causes this greater density in the bones of some individuals than in those of others? We have to look to the elements of which bone is composed for the determining cause. The animal tissues are made up of fluids and solids. The solids are composed of three simple elements, viz.: granules fibres and cells

that are only determinable by means of a microscope. This difference of quality is most easily determinable with regard to the element fibres. The fibres that form part of the tissues of an individual of high quality are more slender, more compact and tougher than those of one of less quality. One can appreciate this even with the naked eye in examining the walls of horses' hoofs. In a horse possessing a fairly high degree of quality, the fibres which run from the coronet down, in forming the basis of the wall, are most palpably finer than in those of the wall of a coarser individual. So with the bone; the elements that combine to form it in a horse of high quality are finer and more highly organized than in those of a coarser individual.

What you find in regard to quality in the bones of an individual, you find pervading all the tissues of his organism. You do not find a horse with coarse bone and fine skin, or coarse skin and fine bone. If the horse is fine or has quality, the muscles, tendons, ligaments, skin, hoofs hair and all the other tissues which enter into his composition are equally fine or are of equal quality. The quality of a horse's bone may be perfect, but undue or disproportionate length or other defective form or faulty relationship of one bone to another, may make his conformation very imperfect indeed, so that it is difficult to understand why some horsemen think there is any relationship between quality and conformation.

A high degree of quality is apt to be associated with defects so that one might almost state that a horse can have too much quality. Size or more correctly, substance is strength other things being equal. A horse with a high degree of quality may be so lacking in substance as to impair his power for the performance of work or for severe tests of endurance or speed. He may be so light-limbed that he cannot stand the "wear and tear" of hard work and remain practically sound. We often find horses that are superfine with disproportionately small feet and every experienced horseman knows that it is seldom that such horses do much work and remain sound. A horse, however, cannot have too much quality providing it is combined with sufficient substance for the purpose for which he is required. A high degree of quality and sufficient substance are most important attributes in contributing to perfection in horse flesh.

There are many every-day evidences of the ill consequences of deficient quality in horse flesh. You hear a horseman say that a horse has soft legs, and he points out an individual inclined to fill about the skin of the fetlocks, to show windgalls which extend up the sheaths of his back tendons, and whose hocks are inclined to be puffy throughout. If he gets a bruise or injury of any kind to the skin of his legs, the consequent swelling is apt to extend and is inclined to remain. Abrasions, cuts, cracks and scratches heal rather tardily. Concussion and direct injury to bone are very much inclined to result in bony enlargement, such as splints, that spread out and have no well-defined limits. Standing in the stable too much readily produces stocking of the legs. There is a predisposition to greasy legs. The feet are inclined to be flat, large and easily bruised. These tendencies show coarseness of tissue and low organization, a meagre blood supply and inactive nutrition. Horses with quality also develop windgalls and splints if subjected to sufficient cause, but their character differs from those of coarse horses in being clean-cut and well-defined and not having the tendency to spread out. A horse with quality may have a bog-sparvin, but it will show as a well-defined prominence and not as a round puffiness of the hock throughout.

Draft horsemen talk "quality" just as much or more than those who have to do with the light breeds. The difference in the quality of individuals of the draft breeds is just as well marked as in the light breeds. Take for instance a Clydesdale or Shire, both of which breeds have a considerable quantity of long hair on the back of the legs, which is often referred to as "feather." If this hair is found to be fine and silky, not coarse and wiry, you will find that it is possessed by an individual that shows quality throughout. His skin will not be coarse and beefy, his bone will have a tendency to flatness, showing density of structure. The hair of his mane and tail will be fine, like that at the back of his legs. The eminences and depressions formed by the bones of his head will be comparatively finely chiseled. He, in fact, shows "quality" when compared to other members of the same breed that are equally well bred as far as possessing the characteristics of the breed, and as far as the stud book is an indication of breeding. This is a further example of the fallacy of the view that quality and breeding are the same thing.

A resolution was carried at the Indian Head Horse Breeders' Association that is of general interest to horsemen. The resolution was as follows: "That we request the Government to request owners, who are willing to lease their stallions under the Federal Scheme, to enroll their stallions; also a record be kept of the satisfaction they give, as far as potency and quality are concerned, so as to enable the various clubs to have a quick and efficient method of securing stallions.

Keep the colt's feet level and the toes shortened.

Guard against scratches and such this spring. Prevention is better than cure.

LIVE STOCK.

Re-Cleaned Screenings.

At the large elevators there is always a large quantity of weed seeds, small and broken grains screened out of the market grain. At one time these screenings were considered of little value for feed, and were very often destroyed by being burned or dumped into the lake. This was a waste of feed products, as the screenings contain quite a large percentage of broken and shrunken wheat, wild buckwheat, wild oats and flax, all of which have a fairly high feeding value. Of course, some of the weed seeds have no feeding value, in fact, are detrimental to the stock. By recleaning the screenings, a good deal of valuable feed has been secured for stockmen. In an experiment recently carried on at a number of experimental farms, recleaned screenings were compared with barley as a feed for swine. Twelve lots of pigs were used. Both barley and screenings were fed alone, and also in combination with shorts and feed flour. The pigs were very uniform and highly suited for experimental purposes. The results showed that the lot on barley alone cost \$10.76 for a hundred pounds of gain; on screenings alone, \$10.12; barley and feed flour, \$10.75; screenings and feed flour, \$10.76; barley and shorts, \$10.52; screenings and shorts, \$10.14. More pounds of barley were required for a hundred pounds of gain than of screenings, although there were only a few pounds' difference. This shows that screenings gave a little more economical gain than did barley. Where screenings were the main feed, the pigs made a daily gain of 1.54 lbs., and where barley was the main feed the gain was 1.5 lbs. The lots on screenings ate more than those on barley, thus showing that the feed was palatable. From this experiment one would not need to hesitate about feeding recleaned screenings. The following describes what elevator screenings are, and gives their chemical analyses. Instead of permitting this by-product to be shipped across the line, Canadian stockmen might advisedly consider using it.

What is Elevator Screenings?—This is the total product which is taken out of the commercial grades of wheat at the large wheat elevators. It was formerly shipped in bulk, as it came from the elevators, to firms in the United States. There it was regraded and used to excellent advantage.

The composition of the complete elevator screenings varies widely, according to the district from which the wheat was shipped, the quality of the crop, cleanness of threshing, etc.

The complete elevator screenings is now under government supervision at large terminal elevators, and is commercially separated into the following different grades and percentages:

1. Scalpings, 5 per cent. to 35 per cent. This grade is subject to further recleaning and, in most cases, includes largely the commercial grades of wheat, oats and other coarse grains.
2. Succotash flax, 2 per cent. to 7 per cent. This is about one-third flax seed of good commercial grade.
3. Black seeds, 15 per cent. to 70 per cent. This varies in composition as in quality, but is composed largely of seeds from pig weed, lambs-quarter and the mustards. All these seeds are useless, and the latter are distinctly objectionable in feeds, adding thereto a bitter flavor which makes the feed most unpalatable. Black seeds must be removed in order to make screenings a good stock feed.
4. Recleaned screenings (Standard Stock Feed) (buckwheat screenings), 10 per cent. to 35 per cent. In the following paragraphs the term complete elevator screenings denotes the ungraded product as it is separated in the cleaning of wheat, while recleaned screenings is the term used for that part of the complete elevator screenings which is of special value as a live-stock feed.

Recleaned Screenings, Composition of.—This product, now available in large quantities for Canadian stockmen, may vary somewhat in character, but is fairly uniform and wherever used is providing an excellent feed. The average composition of many samples used is as follows:

	Per cent.
Broken and shrunken wheat.....	46.1
Wild buckwheat.....	37.1
Wild oats.....	8.6
Oats.....	1.0
Flax.....	0.1
Chaff.....	5.65
Mustard seeds.....	0.70
Other seeds.....	0.65

The actual percentage contained of wheat and buckwheat varies more than in the case of the other constituents. Both, however, are of high food value.

A fair chemical analysis of recleaned screenings may show as follows:

	Per cent.
Protein.....	14
Fat.....	5
Fibre.....	8

It will be seen that recleaned screenings shows a higher analysis in both protein and fat than either wheat or domesticated buckwheat. The fibre content is reasonably low.

Grinding Screenings.—The complete elevator screenings may contain such a dangerously high percentage of weed seeds that grinding would be imperative, in order to prevent the spreading of noxious weeds. This applies also, though in lesser degree, to the recleaned screenings, and it is distinctly advisable that this pro-

duct be ground finely even where intended for sheep or poultry.

It is practically impossible to grind complete elevator screenings sufficiently fine in the ordinary grinder, to destroy all of the smaller seeds. Recleaned screenings, however, from which the greater part of the small seeds have been removed, may be safely used after being subject to fine chopping or grinding. That this feature of fine pulverizing is highly important, will be appreciated by owners of clean farms.

Appearance of Buckwheat Screenings.—The prospective purchaser of this material must not be misguided by its appearance either whole or ground. The unground product would seem to contain an alarming quantity of wild buckwheat. This weed seed has, however, a feeding value almost equal to that of the cultivated variety. In the ground form the meal is very dark in appearance, due entirely to the color of the wild buckwheat.

Training Live Stock Judges.

EDITOR "THE FARMER'S ADVOCATE":

As I have often watched the live stock judge place his awards on the different animals at the fall fairs, have wondered if it would not be more interesting if he would give his reasons why one animal was placed above another. Most of the stockmen would be glad to know why one animal was placed over theirs, or why theirs was placed above the others. I recently overheard two gentlemen talking about judging. One was a prominent breeder and the other a judge at one of the fall fairs. The question was, why they did not give reasons for placing their awards, and the answer was "Why, the judge would get into hot water too often." I do not think the judge would get into hot water if he gave just awards, but perhaps he is sometimes unable to give reasons. The judges at most of the fall fairs are mostly large breeders and judge their own line of stock. Are they qualified enough for their position, and if so, how is it that their sons, who ought to be experienced, do not always take the honors at a judging competition? One would almost think that the farmer's son who was experienced would be the better judge, but such is not always the case.



Niblaw Nimrod.

Reserve champion at Birmingham, England, selling for 2000 gs.

In judging there are two faculties which must have special development—observation and judgment. The eye must be trained to see accurately, and quick to see things as they really are. It is absolutely essential that the judge be familiar with the highest types and have the standard clearly in his mind. This comes as the result of study, observation and experience. To become an expert judge one must have sufficient training. It would look foolish for a person to say he was an expert mechanic just because he owned and was able to drive his automobile, and it is the same with judging. Because a farmer has pure-bred stock does not necessarily qualify him as an efficient judge. If a person were to ask some of the judges why they had placed this animal over that one, he might say it was the best type, but the chances are he could not show you the good points.

The Department of Agriculture has done a great deal towards training young men to become efficient judges. The four to six-weeks course held by the District Representative gives the young men an idea of the best types of animals. They train them to give reasons for their placings. The large fairs, such as the Canadian National Exhibition, Toronto, also Guelph and Ottawa, hold judging competitions which are becoming very popular with the young farmer. Great interest is centred around the Inter-County Stock Judging Contests and great is the anxiety of the District Representatives as they watch their boys work and await the result of the contest. In watching the boys judging, a person can almost pick out the ones who would make the best success as judges. Some are greatly excited and, in the rush, while trying to place the animals become bewildered and the time is up before they are finished; others examining the animals in a cool and determined way, and are finished in plenty of time.

York County encouraged stock judging in an ex-

cellent way when the Hon. G. S. Henry, Minister of Agriculture, offered a silver cup to the best judge in the county. It would be very interesting if the different counties in Ontario offered a prize for the best judge in their county, and the prize winner in each county competed for a yearly prize at some suitable place, such as the Canadian National Exhibition, Toronto, for the championship of Ontario. The winner would certainly be an all-round judge, efficient enough to judge in any show-ring.

York Co., Ontario.

HERBERT KANE.

The Cheviot Sheep.

The Cheviot is a breed of sheep which is not particularly common in Canada, although there are a few exceptionally fine flocks, representatives of which are usually seen at our larger exhibitions in the fall. The native home of the Cheviot is on the border line between England and Scotland. The country is mountainous, and the breed possibly got its name from what are known as the Cheviot Hills in that district. The hillsides are covered with short, nutritious grass. Little is known of the origin of the Cheviot. It has been bred in the border countries from early times. Early in the eighteenth century mention was made of this breed. However, since that time the character of the breed has undergone considerable change. In the early days there was a tendency toward this breed of sheep being upstanding, with thin shoulders and a close, even fleece. It is claimed that in 1838 the first Cheviot was brought to the United States. Previous to this date, however, there were representatives of the breed in Canada. The size of the Cheviot is medium; rams will weigh around 200 pounds and ewes about 160 pounds. As a mutton producer, the breed ranks first class. It does not lay on excessive external fat, but the fat and lean are well proportioned. They are excellent grazers, as would be expected from the environment under which the breed originated. It is claimed that no breed is more

essentially a grazing sheep. It does not flock in the ordinary way, but each sheep apparently moves about independent of the others; thus a flock will spread over a considerable space. It is a hardy breed, however, and if it were to flock better would be an excellent breed for the ranch. The lambs are vigorous from birth, and apparently are well suited to withstand severe conditions. There are better breeds as wool producers. While the fleece is of good quality, it is a little on the light side. The breed belongs to the middle-wool class. The Cheviot is used a good deal for crossing with other breeds for the production of mutton. Leicesters, Lincolns and Oxford Downs are frequently crossed with the Cheviot, and produce rapid-fattening lambs with high-quality flesh. Cheviots are quite popular in England and Scotland and are to be found in most of the British colonies, though not to the same extent as some of the other breeds. Quite a number of Cheviot flocks are found in Quebec. They are rather an attractive sheep, and at auction sales in England have brought a high figure.

The following are the points of excellency as given in the "Shepherd's Hand-Book": Head—Of medium length, broad between the eyes, well covered with short, fine, white hair. Ears—Nicely rounded and not too long, should rise erect from the head; low set, or drooping ones are a decided fault, but at the same time they should not be what are called "hair-lugged," that is, too near each other, as that indicates a narrow face, which generally denotes a narrow body. Nose and Nostrils—Black, full and wide open. Neck—Strong and not too long. Breast—Broad and open. Legs—Set well apart. Ribs—Well sprung, and carried well back towards the hook bones, as a long, weak back is about the worst fault a Cheviot can have. Back—Must be broad and well covered with mutton. The hind quarters full, straight and square. Tail—Well hung, nicely fringed with wool. Legs—Must stand squarely from the body (if bent hocks, either out or in, the latter especially, are looked upon as a weakness) the bone must be broad and flat, and all must be covered with short, hard, white hair. Wool—It ought to grow a fleece weighing 10 or 12 lbs. of fairly fine wool, densely grown, and of equal quality; coarseness on the top of the hocks is a decided blemish; the wool should meet the hair at the ears and cheeks in a decided ruff; bareness there or at the throat is inadmissible, and it should grow nicely down to the hocks and knees. The belly and breast ought also to be well covered. The same description when modified will apply to ewes also, which will weigh 100 to 150 lbs. Cheviots, when in a natural state, must grow finer wool, as hard feeding inclines to make it stronger, but it must be stiff and dense and not too short.

Hon. G. S. Henry, Minister of Agriculture, presented a silver cup to the best judge in the very interesting if the different prize winner in each county prize at some suitable place in National Exhibition, Toronto, Ontario. The winner would be a good judge, efficient enough to

HERBERT KANE.

Cheviot Sheep.

breed of sheep which is not particularly common in Canada, although there are a few flocks, representatives of which are shown at the larger exhibitions in the fall. The Cheviot is on the border between Scotland and England. The country around the breed possibly got its name from the Cheviot Hills in Scotland. The hillsides are covered with short grass and it is known of the origin of the breed in the border countries as early in the eighteenth century as this breed. However, since that time the breed has undergone considerable changes. In the early days there was a tendency for the sheep being upstanding, with thin fleeces. It is claimed that the Cheviot was brought to the United States in 1847, and since that date, however, there were no more bred in Canada. The size of the rams will weigh around 200 to 250 pounds. As a mutton breed it is first class. It does not lay down much fat, but the fat and lean are well developed, excellent grazers, as would be expected in an environment under which the breed is claimed that no breed is more essentially a grazing sheep. It does not flock in the ordinary way, but each sheep apparently moves about independent of the others; thus a flock will spread over a considerable space. It is a hardy breed, however, and if it were to flock better would be an excellent breed for the ranch. The lambs are vigorous from birth, and apparently are well suited to withstand severe conditions. There are better breeds as wool producers. While the fleece is of good quality, it is a little on the light side. The breed belongs to the middle-wool class. The Cheviot is used a good deal for crossing with other breeds for the production of mutton. Leicesters, Lincolns and Oxford Downs are frequently crossed with the Cheviot, and produce rapid-maturing lambs with high-quality flesh. Cheviots are quite popular in England and Scotland and are to be found in most of the British colonies, though not to the same extent as some of the other breeds. Quite a number of Cheviot sheep are raised in an auction sales in England have

points of excellency as given in the "Standard Book": Head—Of medium size, the eyes, well covered with eyelids. Ears—Nicely rounded and not protruding from the head; low set, or slightly curved, but at the same time what are called "hair-lugged", that is, as that indicates a narrow forehead and a narrow body. Nose—Broad and wide open. Neck—Short. Breast—Broad and open. Ribs—Well sprung, and carried back, as a long, weak back is a Cheviot can have. Back—Covered with mutton. The tail—Short and square. Tail—Well set. Legs—Must stand on bent hocks, either out or in, and looked upon as a weakness. Feet—Flat, and all must be covered with hair. Wool—It ought to grow in lbs. of fairly fine wool, densely packed; coarseness on the top of the neck; the wool should meet the cheeks in a decided ruffle; the throat is inadmissible, and it is to the hocks and knees. The wool also to be well covered. The modified will apply to ewes also, and 150 lbs. Cheviots, when in a finer wool, as hard feeding, but it must be stiff and

Quebec Breeders Meet.

President the Hon. N. Garneau, in opening the 25th annual meeting of the General Stock Breeders' Association of the Province of Quebec, held at the Place Viger Hotel on Feb. 20, called attention to the progress which the Association had made during the twenty-five years of its existence. He pointed out that the live-stock interests of the province had received material benefit as a result of the efforts of the Association in different channels. The most important of these activities being the annual sales of pure-bred stock at established centres throughout the province, and the efforts to provide legislation which would benefit the live-stock interests. He was pleased to point out that after years of fruitless efforts, a Stallion Law had been presented to the legislature by Hon. Mr. Caron. He cautioned the members of the Association against resting on their laurels, but urged a greater effort that more might be accomplished in the future.

The Secretary, Dr. J. A. Couture, also reported progress and the following facts were submitted: The total membership of the Association is 977, made up as follows: Sheep Breeders' Association, 377 members; Swine Breeders' Association, 345 members; French Canadian Horse Association, 94 members; French Canadian Cattle Association, 161 members.

The receipts and expenditures for last year have been as follows:—Receipts, \$31,715.70; expenditures, \$26,361.70, leaving a balance on hand of \$5,354.00.

The following animals have been registered in the various Record Books, in the course of the year, viz.: 351 French Canadian cattle, 53 French Canadian horses, 10,255 sheep, and 14,858 swine.

Mr. Grisdale, Acting Deputy Minister of Agriculture, delivered a splendid address, featuring the horse breeding end to quite an extent, and pointed out that if we were to assume our proper place as a horse breeding country, we must attach greater importance to a choice of stallions. The speaker referred to the French Canadian horse and cow, and pointed out that the Dominion Farm System recognized the merits of these breeds, and that they had a place in farm practice. The great drawback being that the breeds are not sufficiently strong in numbers of the right kind.

Professor Barton of Macdonald College in his address emphasized two things,—better sires and more feed, and continued to point out that many of our breeders and farmers had not yet learned the lesson of properly developing their stock. In connection with the swine industry, if we are to achieve the greatest results we must be prepared to meet the demand of the large market centres.

The election of officers for 1919 resulted in the Hon. N. Garneau being re-elected as President, Jas. Bryson as Vice-President and Dr. J. A. Couture as Secretary.

The annual meetings of the four affiliated societies were held on February 19, and resulted in the following elections for 1919:

French Canadian Cattle Breeders' Association: President, Arsene Denis, Vice-President, Louis Thoin, Secretary, Dr. J. A. Couture.

French Canadian Horse Breeders' Association: President, M. Victor Sylvestre, Vice-President, Louis Thoin, Secretary, Dr. J. A. Couture.

Quebec Sheep Breeders' Association: President, Nap. Lachapelle, Vice-Presidents, James Bryson, V. Sylvestre, Secretary, Dr. J. A. Couture.

Quebec Swine Breeders' Association: President, Louis Lavallee, Vice-Presidents, Clovis Ouiment, Frank Byrne, Secretary, Dr. J. A. Couture.

L. C. McQUAT.

Live Stock Supplies at British Markets.

EDITOR "THE FARMER'S ADVOCATE":

Below is a compilation of figures showing the number of live stock submitted to market in England, Wales and Scotland in 1918, and a comparative table displaying the average of numbers submitted in the years 1915-1917:

	England		Scotland	
	Number 1918	Number 1915-17	Number 1918	Number 1915-17
Fat cattle.....	374,456	642,309	122,623	226,544
Store cattle.....	540,865	536,999	215,411	220,273
Dairy cows.....	99,084	99,541	36,143	39,362
Calves.....	121,336	125,703	28,152	28,070
Fat sheep and lambs.....	1,950,339	2,752,084	639,325	827,435
Store ditto.....	1,011,302	1,058,312	1,183,264	1,279,024
Fat pigs.....	180,418	603,186	13,119	47,290
Store pigs.....	128,896	167,741	15,458	16,889

Except in store cattle (stores meaning cattle to feed until ripe for the fat stock market) there is a falling off in the figures all around. During 1918 America sent to Britain 3,583,582 cwts. of fresh beef and 13,285 cwts. of salt beef.

Canada bought from Great Britain in 1918, 313 head of pedigreed cattle of the declared value of £90 10s. 10d. each, and 244 sheep said to be worth £13 1s. 3d. apiece. One pig, also, valued at £46 was taken from the Homeland to Canada.

America, let it be said, bought 600 head of cattle valued in the official statistics at £106 19s. 3d. each, and 1,181 sheep valued at £13 5s. 9d. apiece. All told the value of Britain's cattle exports is set at £388,410, sheep at £120,441 and pigs at £4,606 Canada, in 1918, exported to Britain 23,222 horses worth £68 3s. 2d. apiece.

ALBION.

Going! Going!! Gone!!!

While a few auction sales of farm stock and implements, and a number of pure-bred stock sales, are held at all seasons of the year, there is usually an epidemic of sales in February and March and the familiar going! gone! resounds in the spring air. Breeders dispose of surplus stock in the spring; tenants move from one place to another, and hold a sale from force of habit; farmers, owing to shortage of help or to failing health, dispose of their farms and consequently are obliged to sell their stock and implements. For one reason or another there is a sale within a radius of fifteen miles practically every day in February and March, and there are men who follow these sales very religiously, looking for "bargains." There are some who claim that better prices are secured at a private sale, but when a man wants to get rid of his stuff he wants to do so quickly, and the auction sale has proven to be the best method of getting value out of an offering that includes articles both of high and low grade. There is a magnetism about a sale which draws men, and women, too, from far and near. Practically everyone has stood at the ring-side and watched the auctioneer dispose of one thing after another, at varying prices. Sometimes the price is reasonable; at other times the purchaser pays dearly for the whistle. Some folk appear to have a mania for buying second-hand goods, consequently the auctioneer is enabled to dispose of the most trifling things. It is astonishing the amount of stuff which accumulates about a farm during the course of fifteen to twenty-five years. One never knows what he really has until called upon to move, or hold an auction sale. Some sales are a big success, while others go flat. Why is it?

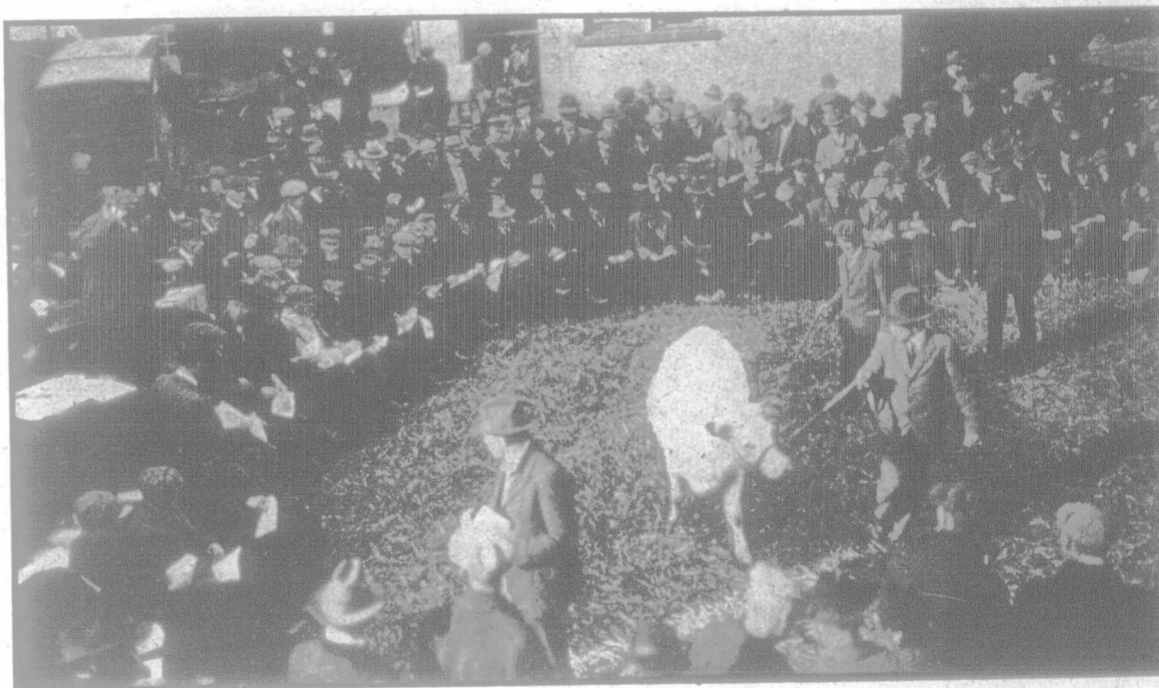
The success of a sale depends on the quality of the goods offered, the condition they are in, the management of the sale, and upon the auctioneer. Many sales have been a disappointment simply because the animals were out of condition and the implements and machinery not in repair. While there is a class of men who purchase only

may have an opportunity of examining them before the sale commences. In regard to stock, the owner should know definitely the age of the animals and the date of service, and should be on hand to give this information if the bidders request it. Of course, where pure-bred stock is being sold the information regarding the breeding, etc., is usually printed in a catalogue. We have been at sales where the proprietor could not be located when he was wanted to give information regarding the stock, with the result that there was either a delay in the sale or dollars were lost because of prospective purchasers ceasing to bid further without more detailed information regarding the animals in the ring. The order of the sale and details should be carefully planned and then adhered to. In this way much confusion would be avoided. Every man having a sale wishes to secure as much for his stuff as possible, and his disappointment is oftentimes due to his own carelessness or neglect. Some auctioneers are more successful than others. A good deal depends on their personality, their knowledge of the material to be sold and their ability to keep the crowd in good humor.

A good many consignment and dispersal sales of pure-bred stock have been and are being held. In the past some herds have been disposed of at a good figure while others went somewhat under their value when breeding was taken into consideration. In the latter case there is no doubt but that a little extra feed and attention would have netted the owner many extra dollars. Capt. T. E. Robson, who has had a good deal of experience in the selling of pure-bred stock, discusses details to be considered if best results are to be obtained in the following paragraphs.

"There is no locality that I know of in this country where a successful sale cannot be made if a reasonable amount of business ability is put forth in the preparation of the stock.

"To insure the best results many details should be



The Bids are All In.

The above is the sale ring of the London Consignment Sale Co. on the occasion of their fall sale, 1918.

that which is prime, there are others who apparently can look beyond the present condition of the things offered and see where, by a little extra feed and care, the value of the animals can be considerably enhanced; or, by the purchase of a few repairs and the use of a little paint, the implements and machinery which now appear practically useless can be made as serviceable as new stuff. It is not uncommon to see implements, harness and sundry things about the farm selling at auction for almost the price of new things. In fact, during the past couple of years the advance in the price of implements and machinery has permitted some to dispose of these effects for practically as much as they cost a few years ago, while in the meantime they have had these years of service.

The man contemplating having an auction sale should commence sometime previous to the date set to get the things in order. The implements should be repaired, and if there is time to paint the wooden parts it would be to his interest. A dollar's worth of paint will very often increase the price of the implements on which it is used. In the case of live stock it will pay to give extra feed and attention to have it in good condition. This applies to the sale of grade stock as well as pure-bred. The time spent in grooming, cleaning, and in polishing up the horns will be amply repaid. The cattle should also be trained to lead.

Many fall down in the management of a sale. In place of having the things to be sold arranged in the order in which they are to be disposed of, the auctioneer at a general farm sale is too often moved from one place to another about the yard, with the result that the crowd is scattered and interest lags. Where possible, the implements, machinery and sundry things should be grouped in one place and so arranged that the crowd

considered and carefully carried out. Success or failure lies with the man at the helm. In getting cattle prepared for a sale they do not require to be so highly fitted as for a show, but it is necessary to have them fairly well on. They should be fed liberally and regularly on wholesome food but not overdone. They should be kept clean when in the stable, and well bedded, their feet trimmed so that they walk well and stand level, be exercised and well groomed. The use of a brush and cloth brings good results but I have found in all kinds of stock rubbing with the hand brings out a better gloss on the hair than by any other means. The stock should be well halter broken and taught to pose properly while standing. Many an animal has lost prizes in the show-ring from being badly handled, also many in the sale-ring have not brought the price they should, from the same cause. I have frequently seen an animal brought into the sale-ring standing in a most awkward position and the man in charge watching bidders or talking to some friend at the ring side. A good "first impression" counts with buyers.

"Then too, the man who brings into a sale ring scrawny, awkward animals wonders why he does not get more money, and, of course, is disappointed.

"The breeders who make a success of public sales are those who care for the stock from the time they are born until they are disposed of. They keep the milk calf flesh on. If an animal is stunted when young it can never be developed as well as it would have been if liberally treated.

"When making a sale have the time and place well advertised in some good stock journal, have catalogues carefully prepared, furnish a proper breeding list. Select a cosy place for the sale-ring, (which should be well bedded with straw or shavings,) and provide comfortable seats for the buyers.

"Bring the animals into the ring in good condition with horns polished, the hair clean and silky, trimmed at tail, head if necessary and the switch washed and combed out. Have them well trained at the halter so as to make the best possible pose while standing. This may be acquired by careful and kind treatment at all times thus avoiding having to lead in nervous, frightened and awkward animals. Do not send inexperienced men to handle stock in a sale ring, if the stock offered be worthy and the method of selling honorable the sale should surely be a success."

For the convenience of the purchasers, the clerk should be prepared to make settlement whenever desired during the sale. In order to do this it may be necessary to have assistants, which may oftentimes be secured from the local bank. We were at a sale not long ago where the clerk was obliged to go to each purchaser to get his name and address, instead of this information being brought to him by someone appointed for this job. The result was that he had no time for attending to the business. Furthermore, he was not supplied with blank cheques and was apparently ignorant regarding shipping arrangements, pedigree transfers, etc. This was a considerable inconvenience to many of the purchasers, and naturally they were not very well pleased. The man who is in the business, and intends to continue doing business with the public must cater to the purchasers. Furthermore, he should be frank and above board when discussing the stock offered. If he knows of any slight defects, it is advisable to mention them when the animal is in the ring, rather than have the purchaser find them out a few months later and become dissatisfied with his bargain. A man who tells the truth about his animals, gets the repeat orders which every breeder should expect if his stock is satisfactory.

Whether pure-bred stock, grade stock, or farm effects, are to be disposed of by auction, it is necessary to have a reasonable sized crowd. To secure this the people must know what is being sold. Grade stock and farm effects are usually purchased locally, but with pure-bred stock it is different. If the stock has quality and good breeding, men will go long distances to attend the sale; consequently the advertising must be on a greater scale. A glance over the report of a pure-bred stock sale will show from what distances purchasers are drawn. There is really no logical reason why a sale should be a failure if reasonable care is taken in fitting and training the stock, and in conducting the sale properly. If every detail has been attended to there is no reason why, when the last going! going! gone! is sounded by the auctioneer, both seller and purchaser should not be satisfied.

Dogs? Certainly.

EDITOR "THE FARMER'S ADVOCATE":

I read an article in "The Farmer's Advocate" with a great deal of interest. This article was entitled, "Dogs or Sheep—Which?" Mr. McDiarmid, the writer of the article, takes the same attitude towards the dog that so many of the writers of the present day do, namely "Hock the Dog." I must confess that I am not a "Jack London" either in my persuasive ability as a writer or in my affection for man's "companion" the dog, but I must say that the attitude numberless public men voice in their discourses certainly "gets on my nerves." As the dog can neither speak nor write for himself, I am going to be his "champion" if the Editor will let me.

Mr. McDiarmid confesses, at the conclusions of his article, that he never had a dog. Anyone who ever had a "real dog" would know that before he had read half-through it—for if he had he would be taking a different stand on the dog question.

The dog has been blamed for retrogression in the sheep raising industry in America. If it had not been for the dog sheep would be found on every farm, we would have lamb chops three times a day, the cotton spinners would be put out of business, we would be shipping wool and frozen carcasses to Europe and there would not be a weed left on our farms.

Anyone who has given the matter very serious consideration knows that we must look farther than the dog sitting on our door-step for the decline in the sheep raising industry which was steadily taking place up to the outbreak of the present war. The great, wide fertile plains of Western America and Australia made ideal sheep ranches. Pasture was abundant and cost practically nothing. Flocks increased rapidly. Transportation facilities were rapidly improving from year to year. Transcontinental railroads were built in America. Steamship service was developed to Australia. The result has been that these two great mutton and wool producing centres were able to produce their product and sell it on the open market far cheaper than it was profitable for the eastern farmer to dispose of his. The result has been that the eastern sheep raisers gradually went out of business except the breeders of pure-bred stock who found a ready sale for all their animals as breeding stock for the western ranges.

The war caused many changes in the merchantile world. Perhaps none felt it as much as the sheep raising industry. Every available vessel was needed for transporting men and munitions, the Australian supply was naturally curtailed. With the abnormal demand for wool for the manufacture of uniforms and blankets for our men overseas, the price naturally went sky-rocketing. We civilians have had to pay dearly for our woollens, which at best were but a mixture of shoddy and cotton. Surely we cannot trace all the changes in the sheep industry to the dog.

I can understand that when a man has been used to paying two-fifty for a suit of good woollen combinations and inside of two years has to pay more than twice the price for an inferior article he just naturally kicks. As

the dog is usually the handiest thing to kick, he certainly has got a great deal more than was coming to him.

We all must admit that there are numerous animals running at large throughout the country that are not fit to be called "dogs." Animals that are composite samples of all the known breeds, with perhaps a little wolf or coyote thrown in for good measure. This indiscriminate breeding has given us a dog with the disposition and traits of the "Historical Half-Breed." A being without any of the good points of any of its pure-bred ancestors, and all of their bad traits concentrated in one. Is it any wonder that on a still moonlight night he finds the wander-lust of one of his remote ancestors creeping through his veins and we find him on a knoll behind the barn barking at the moon. This hunting call of the pack awakens the dormant instinct in the mind of a dog of similar breeding over on the other concession who replies in like manner. In a short time they are together and the hunt is on. The next day it is reported that a number of sheep have been killed in the neighborhood, which is what we would expect.

Dogs as a class may be divided into two distinct divisions, dogs that are representative of some of the known breeds, and mongrels or curs. With but few exceptions it would be a Godsend to the owners as well as to the country as a whole if all of this latter class were sent to the "happy hunting ground". The most of the sheep-killing and depredations by dogs throughout the country are caused by this class of canines. While it may sound inhuman to destroy them as a class, nevertheless it would be good business. The same



On Guard.

cannot be said of the dogs which are representative of some breed. All the different breeds have been bred along certain lines for a certain purpose, and have proven more or less useful to man, but are in disfavor because of a few of their renegade brothers.

There is only one breed of dogs suitable for our farms, the collie. He fills the bill every way you take him. He can be taught anything from jumping through a hoop to counting. As a watch-dog he is better than the notorious bull. As a playmate and caretaker of the children he has no equal. The services he renders and the steps he saves around a farm pay for his keep many times over. The men who own collies that money could not buy are numerous. They say they could not run their farms without them. Their view is not taken from a purely sentimental standpoint, but from a straight dollar and cents proposition.

I have been the champion of the dog ever since I carried a six weeks old puppy home in my pocket seven years ago. This same collie has done more to win the war than lots of people. She has watched the farm at night, is always on hand to help with the cattle, horses or hogs, and most of all—there are about fifty of her sons and daughters throughout the country, many of which could not be bought from their owners who are all practical farmers who paid five dollars for their puppy.

When a fellow works all day and has to bring the cows at night, I cannot think of anything pleasanter than sitting down at the gate while the dog brings the cattle up for you; or when you are tying them in—to go on in the stable and have the old dog bring them in as well or better than you could yourself. This is not a mythical story, but just an instance of what the dogs are doing every day throughout the country, and it is the main reason the farmers will pay their dog tax and persist in keeping "the sheep raisers plague."

The assumption that you cannot have both sheep and dogs has no foundation whatever. In Great Britain where sheep are raised extensively, every shepherd has his dog. Coming home to our own province, we find one of the most prominent breeders of Southdowns in America—also a breeder and exhibitor of collie dogs. I can well remember being at the home of the man who put Oxford sheep on the map in Ontario—at lambing time in the spring. He was going around the lambing pens looking after the newborn and weak lambs, his dog was with him. The ewes were not the least nervous, even when the dog jumped from one pen to the other, often landing alongside the mother and her wobbly offspring. I cannot imagine such dogs as a menace to the sheep industry.

We have heard a lot about the money farmers have lost by keeping scrub bulls, has it been advocated to kill all bulls? No: Farmers are advised to use a

pure-bred sire and improve their stock. The same can be said of the horse; only the Government has gone one step farther and we have the Stallion Enrolment Act. Would it not sound more sensible and reasonable if, instead of wasting so much effort trying to have all the dogs exterminated—when they have proven themselves to be a real assistance to the farmer—we would start a dog improvement campaign to do away with the mongrel dog along with the scrub bull and the grade stallion. By all means let us have dogs, but let them be good dogs of a useful breed.

Prince Edward Co., Ont.

G. E. DE LONG.

THE FARM.

Flat Rack Changed Into Sliding Rack.

EDITOR "THE FARMER'S ADVOCATE":

For the benefit of your readers I have outlined what I think is a simple method of converting an ordinary flat hay rack into a cheap and serviceable roller rack, which no farmer who expects a hay crop should be without, not only because it saves one man but also because it makes loading hay an easy job for the one doing it.

The rack described is sixteen feet long and seven and one-half feet wide. The tracks are two and one-half feet apart, but I would make them no less than three feet apart if I made another. The roller platform need not be tightly boarded, thus saving considerable in cost and weight. The car is made of two one-inch by four-inch boards, with two-by-two-inch pieces clamped in between so as to form a flange to run on both sides of the track. Each side of the car is equipped with three wooden rollers, (I simply sawed a round bed-post into the desired lengths.) The centre roller may be raised a little off the track so as to act as auxiliary only when platform is loaded.

For transporting the loaded platform forward a windlass was simply stuck into the rack-lifter hooks at the rear of the rack and the rope run forward under the rack and through a pulley fastened on front end of rack (stationary) on to the roller platform. An old hay fork rope clamped on to a one-inch gas pipe will do for a windlass. The windlass may be put on front end of the rack, if convenient, saving the price of a pulley. The tracks are made of pine, two by two and three-quarter inches, but hard wood would be better. The rollers are less than three inches in diameter. Stop blocks must be placed on the front end of rack to avoid running forward too far.

Brother farmers, now is the time to construct a sliding rack. It will save your muscles and help you to enjoy those hot days next haying season.

Waterloo Co., Ont.

MILTON A. BECHTEL.

A Method of Raising Revenue.

EDITOR "THE FARMER'S ADVOCATE":

I read with considerable interest the reported official reply by the Canadian Manufacturers Association to the platform of the Canadian Council of Agriculture, and all indications point to a political and economic struggle in Canada in the near future. The organized farmers are demanding on their side that the economic burden placed on their shoulders by the protected interests should be lifted while the organized manufacturers have replied in effect that they do not intend to have the tariff interfered with one iota.

Their main contentions seem to hinge on the question of revenue and employment for returned men. They claim the total federal revenue from all forms of taxation during the last fiscal year was \$214,182,156 and the Dominion Government has announced that a revenue of \$450,000,000 will be required to meet next year's expenditure. The manufacturers advise the best way to raise this amount is by the tariff as they point out in their official statement that 61 per cent. of the revenue raised during the last fiscal year was raised by this method, and they urge that it should be maintained. If we are to follow the advice of the manufacturers and make the tariff collect the bulk of the revenue we want to at least double our purchase of foreign-made goods during the coming year because by buying foreign-made goods the revenue goes to the Government of Canada to help meet the expenditures of the country.

It is a good suggestion, however. If we purchase sufficient foreign-made goods we can make the tariff take care of the entire revenue and thus avoid being taxed in other directions. By following this method we would find ourselves considerably ahead in pocket, as we pay the same price for an article whether it is made in Canada or imported. So in order to be truly patriotic and provide revenue for our Government, farmers should make a practice of purchasing all the machinery they require in foreign markets.

As to the manufacturer's anxiety in regard to the question of giving employment to returned men, I notice that the returned soldiers in Winnipeg had to stand over them with a club before they would part with their alien labor and give the returned men a chance, they make a plea for more time in order that the boys will become sufficiently humbled so that when they become their employees they will not dare to vote otherwise than they are directed.

They claim also that this is no time to make any changes in the tariff, that all controversial problems

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Ont. G. E. DE LONG.

should be avoided, yet they made all haste to Ottawa to try and have the duty on small tractors restored. However, the farmers must have a few friends in the Government strong enough to fight for them in the matter with the result that tractors go on the free list for another year. At this session of Parliament the Government should make this a permanent law.

So the farmers have gained the first ground in the tariff fight and they will win out if they hang together and if they don't hang together they will all hang separately.
Middlesex Co., Ont. J. W. FREEBORN.

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**A Glimpse Into the House of
Commons.**

The outstanding event in the political arena at Ottawa, following the death of Sir Wilfrid Laurier, has been the selection of a temporary leader to replace the departed Opposition Chieftain in the House of Commons for the present session. As stated last week the house met for a short time only on Thursday, February 20, and adjourned until the following Tuesday, out of respect for the late Opposition Leader. The interim, aside from the state funeral on Saturday, was fully occupied by the Opposition in preparation for a party caucus on Monday. The result of this caucus, while undoubtedly known beforehand to a small coterie of the inner guard was an entire surprise to nearly everyone else. All this, of course, need necessarily have no deep significance for the average farmer, but it may, however, especially when conjoined with the number of Liberal-Unionists now supporting the Government, assume much greater significance as the session advances.

Regarding the debate on the speech from the throne not much can be said as yet, for the reason that at the time of writing proceedings have apparently just been started. We have not yet reached a sufficient degree of satiation to make adequate comment on the needless waste of time in the House. A great deal of this waste is occasioned by the unlimited verbosity affected by nearly every member who rises to speak, a destructive practice apparently accepted as a cardinal principle of good conduct and recognized as a bounden duty of the members, by Government and Opposition alike.

One point in an address by the Hon. F. B. Carvell, Minister of Public Works, is worthy of comment here. It has to do with Canada's financial position and is not altogether new. Mr. Carvell pointed out that the country's fixed yearly expenditures due to the war alone will amount to about \$185,000,000 for some years at least, while the whole income of the country from the three principal sources of revenue, namely, customs duties, excise duties and income and business profits tax, will amount to no more than \$195,000,000. In addition, the ordinary expenses of government require \$125,000,000 yearly and this money must be secured from some quarter. This is a matter deserving of careful thought by everyone, especially as the estimates which will be brought down in a short time may be expected to suggest means for meeting this extra expenditure. It would be as well when considering this question to remember the oft repeated statement that our national debt must be paid from the top six inches of Canadian soil and that, to use figures estimated roughly by the Minister of Public Works in his recent speech, this national debt will be little if any short of two billion dollars.

What of the farmer? Will he and his affairs figure at all conspicuously in the discussions of the House? Aside from the abnormal emphasis laid publicly upon the pursuit of farming during the last four years, a fair idea of the probable discussion might be obtained from an analysis of the House membership by occupation which is given herewith. An study of the table given shows 68 lawyers, 32 farmers, 22 merchants, 19 physicians, 17 manufacturers, 11 journalists, 8 lumbermen, 5 publishers, 5 financiers, 4 military, 4 agents, 4 brokers, 3 notaries public, 3 gentlemen, 2 politicians, 2 contractors, 2 ship owners, and one each of the following occupations or professions: clergyman, druggist, accountant, land surveyor, gas and oil operator, plumber, dentist, veterinarian, passenger conductor, public servant and professor. There is, it will be noticed, a small percentage of farmers and of these that are listed as farmers, some, it is to be feared, are not of the simon pure variety. Nevertheless, the sentiment emanating from the farms of Canada is at the present time being expressed so strongly that farm opinion is a matter for very grave consideration by both Government and Opposition. Both realize the potential strength of the farmer's vote and both appreciate the fundamental importance of the industry, but we are of the opinion that, rather than from a desire to legislate for the economic betterment of Agriculture, both Government and Opposition are keeping an ear to the ground from political motives. Politics is the deepest game man ever invented and history has proven time and again that the shrewdest brain of the country is none too keen to play it.

Members of the House of Commons.

Constituency	Member	Political Affiliation	Occupation
Algoma, East	G. B. Nicholson	Unionist	Lumberman
Algoma, West	T. E. Simpson	Conservative	Merchant
Antigonish and Guysborough	J. H. Sinclair	Liberal	Lawyer
Argenteuil	P. R. McGibbon	Liberal	Lumber Merchant
Assiniboia	J. G. Turriff	Liberal-Unionist	Politician
Bagot	J. E. Marcile	Liberal	Merchant
Battleford	H. O. Wright	Unionist	Rancher
Battle River	W. J. Blair	Unionist	Farmer
Beauce	Hon. H. S. Beland	Liberal	Physician
Beauharnois	L. J. Papineau	Liberal	Lawyer
Bellechasse	C. A. Faurrier	Liberal	Druggist
Berthier	Theo. Gervais	Liberal	Physician
Bonaventure	Hon. Chas. Marclil	Liberal	Journalist
Bow River	H. H. Halladay	Unionist	Insurance Agent and Farmer
Brandon	H. P. Whidden	Ind.-Cons.-Unionist	Clergyman
Brant	Jno. Harold	Liberal-Unionist	Manufacturer
Brantford	W. F. Cockshutt	Conservative	Manufacturer
Brome	A. R. McMaster	Liberal	Lawyer
Bruce, North	Hugh Clark	Conservative	Publisher
Bruce, South	R. E. Truax	Conservative	Manufacturer
Burrard	S. J. Crowe	Liberal-Unionist	Retired Contractor
Calgary, East	D. L. Redman	Unionist	Lawyer-Financier
Calgary, West	T. M. M. Tweedie	Cons.-Unionist	Lawyer
Cape Breton North and Victoria	D. D. Mackenzie	Liberal	Lawyer
Cape Breton South and Richmond	J. C. Douglas	Lib.-Conservative	Lawyer
Cariboo	R. H. Butts	Lib.-Conservative	Lawyer
Carleton	F. J. Fulton	Cons.-Unionist	Lawyer
Chamby and Vercheres	Geo. Boyce	Unionist	Farmer
Champlain	Jos. Archambault	Liberal	Lawyer
Champlain	A. L. Desaulniers	Liberal	Physician
Charlevoix-Montmorency	P. F. Casgrain	Liberal	Lawyer
Charlotte	T. A. Hart	Conservative	Farmer
Chateauguay-Huntingdon	J. A. Robb	Liberal	Merchant Miller
Chicoutimi-Saguenay	E. Savard	Liberal	Physician
Colchester	F. B. McCurdy	Cons.-Unionist	Financier
Comox-Alberni	H. S. Clements	Conservative	Farmer and Estate Agent
Compton	A. B. Hunt	Liberal	Lumberer & Real Estate Dealer
Cumberland	Hon. E. N. Rhodes	Lib.-Conservative	Lawyer and Financier
Dauphin	R. Cruise	Liberal	Farmer
Digby and Annapolis	A. L. Davidson	Conservative	Lawyer
Dorchester	L. Cannon	Liberal	Lawyer
Drummond and Arthabaska	J. O. Brouillard	Liberal	Financier
Dufferin	John Best	Conservative	Farmer
Dundas	O. D. Casselman	Conservative	Merchant
Durham	Hon. N. W. Rowell	Liberal-Unionist	Lawyer
Edmonton, East	H. A. Mackie	Unionist	Lawyer
Edmonton, West	W. A. Griesbach	Conservative-Unionist	Military
Elgin, E. Riding	David Marshall	Conservative	Canner (Fr. and Veg.)
Elgin, W. Riding	Hon. T. W. Crothers	Conservative	Lawyer
Essex, N. Riding	W. C. Kennedy	Liberal	Gas and Oil Operator
Essex, S. Riding	J. W. Brien	Conservative-Unionist	Physician
Fort William and Rainy River	R. J. Manion	Liberal-Unionist	Physician
Frontenac	J. W. Edwards	Liberal-Conservative	Physician
Gaspe	Hon. Rodolphe Lemieux	Liberal	Lawyer
George Etienne Cartier	S. W. Jacobs	Liberal	Author
Glengarry and Stormont	(Vacant)		
Gloucester	O. Turgeon	Liberal	Journalist
Grenville	Hon. J. D. Reid	Conservative	Manufacturer
Grey, N. Riding	W. S. Middlebro	Cons.-Unionist	Lawyer
Grey, S.E. Riding	R. J. Ball	Conservative	Merchant
Haldimand	F. R. Lalor	Conservative	Merchant and Mfrg.
Halifax	Hon. A. K. McLean	Lib.-Unionist	Lawyer
Halifax	P. F. Martin	Unionist	Lawyer
Halton	R. K. Anderson	Cons.-Unionist	Physician
Hamilton, E. Riding	Hon. S. C. Mewburn	Unionist	Lawyer
Hamilton, W. Riding	T. J. Stewart	Conservative	Manufacturer
Hants	H. B. Tremain	Conservative	Lawyer
Hastings, E. Riding	T. H. Thompson	Cons.-Unionist	Cheese Buyer
Hastings, W. Riding	E. G. Porter	Conservative	Lawyer
Hochelega	J. E. Lesage	Liberal	Physician
Hull	J. E. Fontaine	Liberal	Physician
Humboldt	Norman Lang	Unionist	Farmer
Huron, N. Riding	Jas. Bowman	Conservative	Politician
Huron, S. Riding	J. J. Merner	Conservative	Merchant
Inverness	A. W. Chisholm	Liberal	Physician
Jacques Cartier	D. A. Lafortune	Liberal	Lawyer
Joliette	J. J. Denis	Liberal	Lawyer
Kamouraska	Ernest Lapointe	Liberal	Lawyer
Kent (N. B.)	A. T. Leger	Liberal	Farmer
Kent (O.)	A. B. McCoig	Ind.-Liberal	Farmer and Mfrs. Agent
Kindersley	E. T. W. Myers	Conservative	Physician
King's (N. S.)	Rt. Hon. Sir R. L. Borden	Conservative	Lawyer
King's (P. E. I.)	Jas. McIsaac	Cons.-Unionist	Journalist
Kingston	W. F. Nickle	Unionist	Lawyer
Kootenay, E. Riding	S. Bonnell	Unionist	Physician
Kootenay, W. Riding	R. F. Green	Conservative	Merchant
Labelle	H. A. Fortier	Liberal	Lawyer
Lambton, E. Riding	J. E. Armstrong	Conservative	Manufacturer
Lambton, W. Riding	F. F. Pardee	Liberal	Lawyer
Lannark	Vacant		
Laprairie and Napierville	R. Lanctot	Liberal	Farmer
L'Assomption-Montcalm	P. A. Seguin	Liberal	Notary Public
Last Mountain	J. F. Johnston	Unionist	Farmer
Laurier-Outremont	R. R. Du Tremblay	Liberal	Lawyer
Laval-Two Mountains	J. A. C. Ethier	Liberal	Lawyer
Leeds	Hon. Sir Thos. White	Conservative	Financier
Lennox and Addington	W. J. Paul	Conservative	Cheese Manufacturer
Lethbridge	W. A. Buchanan	Liberal-Unionist	Publisher
Levis	J. B. Bourassa	Liberal	Notary Public
Lincoln	J. D. Chaplin	Unionist	Manufacturer
Lisgar	F. Bolton	Cons.-Unionist	
L'Islet	J. F. Faford	Liberal	Land Surveyor
London	Hume Cronyn	Unionist	Financier
Lotbiniere	Thos. Vien	Liberal	Lawyer
Lunenburg	Wm. Duff	Liberal	Shipowner
Macdonald	R. C. Henders	Ind.-Unionist	Farmer
Mackenzie	J. F. Reid	Lib.-Unionist	Farmer
Macleod	H. M. Shaw	Unionist	Farmer
Maisonneuve	Hon. Rodolph Lemieux		

Members of the House of Commons---Continued.

Constituency	Member	Political Affiliation	Occupation
Maple Creek	J. A. Maharg	Independent	Farmer
Marquette	Hon. T. A. Crerar	Liberal	Pres. United Grain Co.
Maskinonge	H. Mayrand	Liberal	Farmer
Matane	F. J. Pelletier	Liberal	Retired Merchant
Medicine Hat	Hon. A. L. Sifton	Unionist	Lawyer
Megantic	L. T. Pacand	Liberal	Lawyer
Middlesex, E. Riding	S. F. Glass	Conservative	Insurance Broker
Middlesex, W. Riding	D. C. Ross	Liberal	Lawyer
Missisquoi	W. F. Kay	Liberal	Farmer
Montmagny	A. M. Dechene	Liberal	Lawyer
Moosejaw	Hon. J. A. Calder	Liberal-Unionist	Lawyer
Muskoka	Peter McGibbon	Liberal	Lumber Merchant
Nanaimo	J. C. McIntosh	Unionist	Lawyer
Neepawa	F. L. Davis	Liberal-Unionist	Lawyer
Nelson	J. A. Campbell	Liberal-Unionist	Lawyer
New Westminster	W. G. McQuarrie	Unionist	Lawyer
Nicolet	A. Trahan	Liberal	Lawyer
Nipissing	C. R. Harrison	Unionist	Passenger Conductor
Norfolk	W. A. Charlton	Liberal	Lumbering
North Battleford	C. E. Long	Liberal-Unionist	Farmer
Northumberland (N. B.)	W. S. Loggie	Liberal	Manufacturer
Northumberland (Ont.)	C. A. Munson	Conservative	
Ontario, N. Riding			
Ontario, S. Riding	Wm. Smith	Cons.-Unionist	Farmer
Ottawa	A. E. Fripp	Conservative	Lawyer
	J. L. Chabot	Conservative	Physician
Oxford, N. Riding	E. W. Nesbitt	Liberal	General Agent
Oxford, S. Riding	D. Sutherland	Cons.-Unionist	Farmer
Parkdale	H. M. Mowat	Unionist	Lawyer
Parry Sound	Jas. Arthurs	Conservative	Hardware Merchant
Peel	S. Charters	Cons.-Unionist	Publisher
Perth, N. Riding	H. B. Morphy	Conservative	Physician
Perth, S. Riding	M. Steele	Conservative	Farmer
Peterboro, E. Riding	J. A. Sexsmith	Conservative	Farmer
Peterboro, W. Riding	J. H. Burnham	Conservative	Author
Pictou	Alex. McGregor	Conservative	Lumberman
Pontiac	F. S. Cahill	Liberal	Broker
Portage la Prairie	Hon. Arthur Meighen	Conservative	Lawyer
Port Arthur and Kenora	F. H. Keefer	Unionist	Lawyer
Portneuf	M. S. Delisle	Liberal	Merchant
Prescott	E. Proulx	Liberal	Lawyer
Prince Albert	A. Knox	Liberal-Unionist	Farmer
Prince Edward	W. B. R. Hepburn	Conservative	Pres. Navigation Co.
Prince (P. E. I.)	Jos. Reid	Liberal	Merchant
Provencher	J. P. Molloy	Liberal	Veterinarian
Qu'Appelle	Levi Thomson	Liberal	Lawyer
Quebec County	H. E. Lavigneur	Liberal	Merchant
Quebec, East			
Quebec, South	C. G. Power	Liberal	Lawyer
Quebec, West	Geo. Parent	Liberal	Lawyer
Queen's (P. E. I.)	D. Nicholson	Conservative	Tobacco Manufacturer
	J. E. Sinclair	Liberal	Farmer
Red Deer	Michael Clarke	Liberal-Unionist	Rancher
Regina	W. D. Cowan	Conservative	Dentist
Renfrew, N. Riding	H. J. Mackie	Unionist	Lumberman
Renfrew, S. Riding	I. E. Pedlow	Liberal	Merchant
Restigouche and Madawaska	P. Michaud	Liberal	Lawyer
Richelieu	P. J. A. Cardin	Liberal	Lawyer
Richmond and Wolfe	E. W. Tobin	Liberal	Merchant
Rimouski	J. E. D'Anjou	Liberal	Insurance Broker
Royal	H. H. McLean	Lib.-Unionist	Lawyer
Russell	Hon. Chas. Murphy	Liberal	Lawyer
St. Ann	Hon. C. J. Doherty	Lib.-Conservative	Lawyer
St. Antoine	Sir H. B. Ames	Conservative	Financier
St. Denis	A. Verville	Labor	Plumber
St. Hyacinthe-Rouville	L. J. Gauthier	Liberal	Lawyer
St. James	L. A. Lapointe	Liberal	Gentleman
St. John City and Counties of	S. E. Elkin	Unionist	Manufacturer
St. John and Albert	R. W. Wigmore	Conservative	Public Servant
St. Johns and Sherville	M. J. Demers	Liberal	Lawyer
St. Lawrence and St. George	Hon. C. C. Ballantyne	Independent	Manufacturer
St. Mary	H. Deslauriers	Liberal	Physician
Saltcoats	T. MacNutt	Liberal	Farmer
Saskatoon	J. R. Wilson	Unionist	Gentleman
Selkirk	Thos. Hay	Conservative	Farmer
Shefford	G. H. Baivin	Liberal	Lawyer
Shelburne and Queen's	Hon. W. S. Fielding	Liberal	Journalist
Sherbrooke	T. N. McCrea	Liberal	Lumberman
Simcoe E. Riding	J. B. Tudhope	Unionist	Manufacturer
Simcoe, N. Riding	J. A. Currie	Conservative	Journalist
Simcoe, S. Riding	W. A. Boys	Conservative	Lawyer
Skeena	C. W. Peck	Unionist	Military
Souris	A. E. Finley	Conservative	Physician
Springfield	R. L. Richardson	Radical	Publisher
Stanstead	W. K. Baldwin	Liberal	Merchant
Strathcona	J. M. Douglas	Liberal	Merchant
Swift Current	I. E. Argue	Unionist	Farmer
Temiscouata	C. A. Gauoreau	Liberal	Author
Terrebonne	J. E. Prevost	Liberal	Journalist
Three Rivers and St. Maurice	J. Bureau	Liberal	Lawyer
Temiskaming	Hon. F. Cochrane	Conservative	
Toronto, Centre	E. Bristol	Conservative	Lawyer
Toronto, East	Hon. Sir Ed. Kemp	Conservative	Manufacturer
Toronto, North	Rt. Hon. Sir Geo. Foster	Lib.-Conservative	Professor
Toronto, South	Chas. Sheard	Unionist	Physician
Toronto, West	H. C. Hocken	Unionist	Publisher
Vancouver, Centre	H. H. Stevens	Conservative	Broker and Accountant
Vancouver, South	R. C. Cooper	Unionist	Accountant
Vaudreuil-Soulanges	C. Boyer	Liberal	Agr. Journalist
Victoria (Alta.)	W. H. White	Liberal	Farmer
Victoria (A.)	Hon. Sir. Sam Hughes	Lib.-Conservative	Military
Victoria and Carleton (N.B.)	Hon. F. B. Carvell	Lib.-Unionist	Lawyer
Victoria City (B.C.)	S. F. Tolmie	Unionist	Veterinarian and Farmer
Waterloo, N. Riding	W. D. Euler	Ind.-Liberal	Real Estate
Waterloo, S. Riding	F. S. Scott	Conservative	Manufacturer
Welland	E. E. Fraser	Conservative	Contractor
Wellington, N. Riding	W. A. Clarke	Conservative	Merchant
Wellington, S. Riding	Hon. Hugh Guthrie	Lib.-Unionist	Lawyer
Wentworth	G. C. Wilson	Conservative	Merchant
Westminster District	F. B. Stacey	Unionist	Fruit Grower

Our Scottish Letter.

I am writing in the midst of one of the most ominous labor disputes this city has ever known. I have been resident in Glasgow since the last month of 1875, and up to yesterday I had never heard of the Riot Act being read in our streets, and a charge following thereon of the police with drawn batons. As a result of yesterday's melee in front of the Municipal Buildings and in the old Jail Square many have sore heads to-day, and over fifty citizens and about a dozen members of the police force, including the chief constable, have sustained more or less serious injuries. Four persons, including a Town Councillor, are under arrest. The Town Councillor vanished yesterday when he saw there was likely to be trouble and sore heads, but he was arrested in his own house in the small hours of this morning. The charge against these persons is that of inciting to breaches of the peace. The strikers and the Trades Union leaders, but a policy of terrorizing has been adopted, and what is erroneously called "mass picketing" at the entrance to public works, is in operation. As a result many men are in a state of enforced idleness who desire to work, and protest meetings have been held by the more orderly and sober-minded of the workers. The city is to-day being paraded by detachments of soldiers, with arms in readiness, and as far as I can learn things generally are quiet. What is the ostensible cause of the trouble is more than I can tell. Some time ago certain classes of workmen resolved on a 47-hours' week. This, by agreement, was to be tried for three months, but for some reason or other it was not in operation for three weeks before discontent was expressed and trouble began. Some men want a 40-hours' week, although what they mean to do with the balance, during the time they are not sleeping, has never been explained. Certain it is that the nation whose workers put in a 54-hour week will easily beat the nation whose workers will only toil for 47 working hours in the six days.

Research problems are bulking more largely than usual in the views of farmers. A movement is in progress for establishing a Plant Breeding and Research Station on the lines of the well-known Swedish station at Svalof. The results of the work done at that station have been very notable, and there is no reason why equally good results should not be obtained at a station in Scotland. In quite an unusual degree Scotland is an ideal site for such an institution. Many plants are grown in Scotland for seed, and such seed is very popular in England. The reason is obvious. Our northern climate produces seed with more enduring qualities than the sunnier climes. Ayrshire is famous for its product of perennial rye-grass, Aberdeenshire for its turnips, and Fife and the Lothians for potatoes; with the exception of rye-grass Scotland has not excelled in the production of grasses. It has been much more famous for its potatoes. An unusually large proportion of the best varieties are of Scottish parentage. Mr. McKelvie, a baker in the Isle of Arran, has produced the famous Arran Chief. Since its advent and success he has put two other varieties on the market, and one of them is at present selling at a fabulous price per ton. The reason, of course, is that the stocks are limited. Another famous seed potato grower is Dr. John H. Wilson, St. Andrews. This enthusiastic worker has done splendid service on very limited means. One of the most famous growers of seed wheat, Sheriff, was an East Lothian farmer. Altogether there is good reason to anticipate that the Scottish Plant Breeding and Research Station will prove an unqualified success. A sum of £40,000 or £50,000 is wanted to set it in motion. About one-fourth of that sum has already been subscribed. It will be an uphill job getting the balance, but the promoters are sanguine.

A further scheme is spoken of for research into sheep diseases. The losses from the two diseases of "Jouping-ill" and braxy are estimated at £1,000,000. We do not know how this figure is made out, but we do know that the losses from these two diseases are very heavy. Scientific men have been wrestling with these diseases, but so far not to much purpose. A renewed effort is being made, but unhappily the forces are divided. In place of concentrating on one great effort and allocating certain lines of inquiry to certain institutions, these institutions are engaged in a kind of race for position, with the result that very little progress is being made. A commendable movement is on foot for unification, and consolidation of effort, and it is to be hoped that it may come to fruition. The spectacle of one scientific man saying to another: "Your methods are all wrong; they will never lead you anywhere," does not make for sound results. The first thing is to get rid of this sort of rivalry, and efforts to that end are worthy of every encouragement. What we badly need in Scotland is a liberally-endowed, and efficiently-manned Board of Agriculture. Neither of these things can be said to be at our disposal, meantime efforts towards their attainment are in progress. Some of these appear fitted to reach their goal; as for others we should think the issue to be doubtful. Parochialism is painfully rife in the higher command, and while this condition persists no great success can be achieved.

Clydesdale Activities.

Clydesdale breeders had a great outing on Tuesday, January 14th, when all the Clydesdale stallions, owned by William Dunlop, Dunure Mains, except three, were sold in Ayr market. The three retained by Mr. Dunlop are Dunure Footprint 15203, whose terms this season are to be £50 at service, and £50 additional for a foal; the great old horse Auchenflower 12007, a wonderfully well-built draft type, and the young horse Dunure Norman 18709, a comparatively young horse whose

Scottish Letter.

In the midst of one of the most ominous times that Scotland has ever known. I have been in the country since the last month of 1875, and have never heard of the Riot Act being read, or of a charge following thereon of any kind. As a result of yesterday's meeting of the Municipal Buildings and the many have sore heads to-day, and about a dozen members of the police, including the chief constable, have been seriously injured. Four persons, including a councillor, are under arrest. The riot broke out yesterday when he saw there were a number of men in the small hours of this morning, and against these persons is that of the peace. The strikes and demonstrations are being maintained by the responsible parties, but a policy of terrorizing has been adopted, that is erroneously called "mass action" to public works, is in operation. Men are in a state of enforced idleness, and protest meetings have been held, and are being held in an orderly and sober-minded of the to-day being paraded by detachments of arms in readiness, and as far as generally are quiet. What is the trouble is more than I can tell. The classes of workmen resolved on a strike by agreement, was to be tried for some reason or other it was three weeks before discontent was begun. Some men want a 40-hour week, what they mean to do with the 40-hour week they are not sleeping, has never been in it is that the nation whose 40-hour week will easily beat the nation's 47 working hours in the

are bulking more largely than the farmers. A movement is in progress in the Plant Breeding and Research Station of the well-known Swedish station of the work done at that station, and there is no reason why it could not be obtained at a station in an unusual degree Scotland is an institution. Many plants are bred, and such seed is very popular. It is obvious. Our northern stock is more enduring qualities than the Ayrshire is famous for its product. Aberdeenshire for its turnips, and for potatoes; with the exception of Scotland has not excelled in the. It has been much more famous for its usually large proportion of the Scotch parentage. Mr. McKelvie, of Arran, has produced the famous "advent and success he has put on the market, and one of them a fabulous price per ton. The stocks are limited. Another breeder is Dr. John H. Wilson, St. Andrew's, who has done splendid work. One of the most famous breeders, was an East Lothian breeder, and is good reason to anticipate the success of the Breeding and Research Station. A sum of £40,000 or more has been subscribed. About one-third of the balance, but the promoters

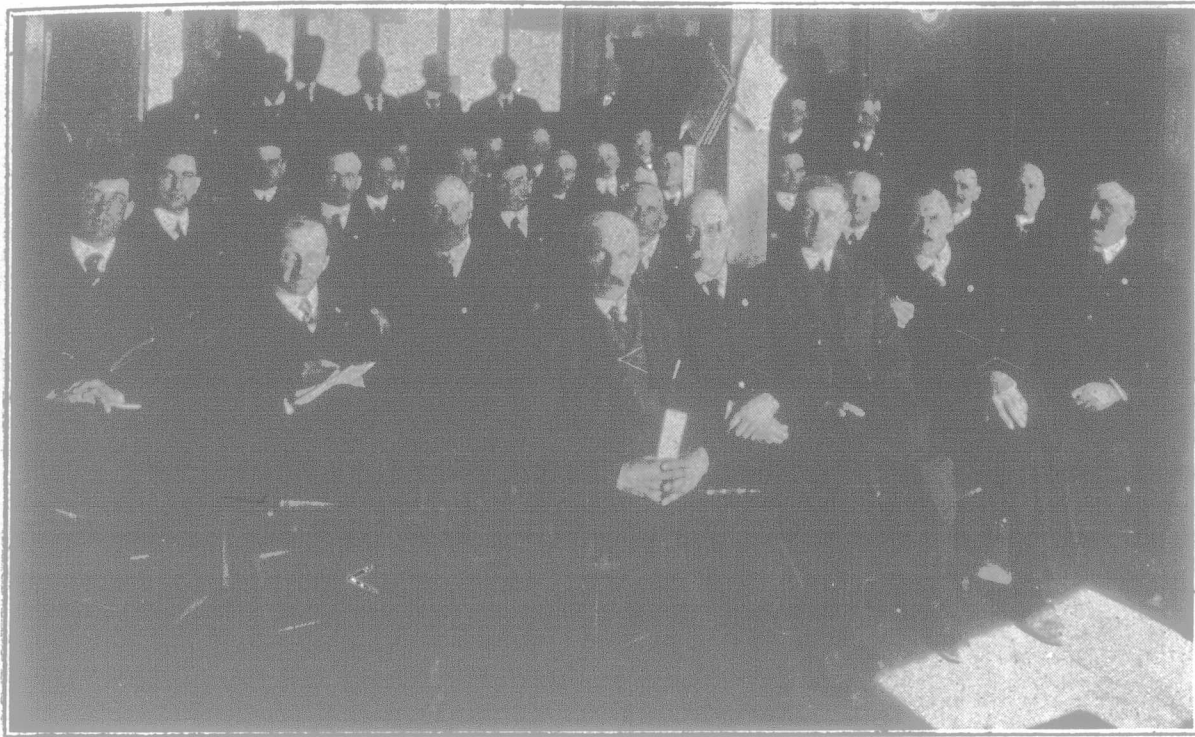
spoken of for research into sheep diseases in the two diseases of "loping" and "rot," at £1,000,000. We do not know that, but we do know that the two diseases are very heavy. Wrestling with these diseases, a renewed effort is being made. The forces are divided. In one great effort and allocating to certain institutions, these in a kind of race for position, little progress is being made. It is on foot for unification, and it is to be hoped that it will be. The spectacle of one scientific method, "Your methods are all wrong, anywhere," does not make for anything is to get rid of this sort of end are worthy of every effort. The badly need in Scotland is a efficiently-manned Board of these things can be said to be efforts towards their attainment of these appear fitted to us, we should think the issue of this condition persists no

Activities.

and a great outing on Tuesday, the Clydesdale stallions, owned by the Mains, except three, were retained by Mr. Dunlop, whose terms this season are £50 additional for a foal; and £12007, a wonderfully young horse Dunlop's young horse whose

Members of the House of Commons---Continued.

Constituency	Member	Political Affiliation	Occupation
Westmoreland	A. B. Copp	Liberal	Lawyer
Westmount-St. Henry	J. A. Leduc	Liberal	Pork Packer
Weyburn	R. F. Thompson	Unionist	Farmer
Winnipeg, Centre	G. W. Andrews	Liberal	Estate Agent
Winnipeg, North	M. R. Blake	Conservative	Physician
Winnipeg, South	G. W. Allan	Cons.-Unionist	Lawyer
Wright	E. B. Devlin	Liberal	Lawyer
Yale	Hon. Martin Burrell	Conservative	Fruit Grower
Yamaska	J. E. O. Gladu	Liberal	Notary
Yarmouth and Clare	E. K. Spinney	Liberal	Merchant
York, E. Riding	Thos. Foster	Unionist	Gentleman
York, N. Riding	J. A. M. Armstrong	Conservative	Estate Agent
York, S. Riding	W. F. Maclean	Ind.-Conservative	Journalist
York, W. Riding	T. G. Wallace	Conservative	Merchant-Miller
York-Sunbury	H. F. McLeod	Conservative	Military
Yukon			



A Meeting of the U. F. O. Board of Directors.

breeding constitutes something outside of the Baron's Pride line. At the sale Mr. Dunlop sold 13 stallions without a reserve. They drew a total sum of £21,792 15s., or an average of £1,676 7s. 4d. each. The highest price was 4,900 guineas (£5,145), at which figure Dunure Independence 18706 became the property of Robert Bryan, Orchardton, Cumnock. Dunure Kaleidoscope 18335, which has won both the Cawdor Cup and the Brydon Challenge Shield, made 4,100 guineas (£4,305), his buyer being George A. Ferguson, Surrodale, Elgin, who has one of the largest and most valuable studs of Clydesdales to-day. Both of these horses are got by the £9,500 horse, Baron of Buchlyvie 11263, about which there was the great litigation some years ago. Dunure Keynote 17869, also by the same sire, and own brother to the famed Dunure Footprint, made 3,300 guineas (£3,465) his buyer being John Baird, M.R.C.V.S., Dumfries. This is a very fine horse; a noted winner and in high favor with Clydesdale breeders. Dunure Refiner 17872, individually, perhaps, the best horse offered, and a Cawdor Cup winner, when two years old, made 3,500 guineas (£3,675) his buyer being John P. Sleight, St. John's Wells, Fyvie, who it is understood was acting on behalf of Falconer Wallace, of Balcairn, Oldmeldrum, the owner of the famous Edgcote herd of Shorthorns, which has been transferred to Aberdeen-shire. The best bred Clydesdale stallion alive to-day is Dunure Ernest 19101. He was bred at Harviestoun by J. Ernest Kerr, and was got by Dunure Footprint, out of Harviestoun Phyllis by Royal Favorite 10630; grandam, Chester Princess by Baron's Pride 9122. His sire, dam and grandam, and also the full brother of his dam, the Noted Scotland Yet, were all winners of the Cawdor Cup. We know no horse with an equal pedigree record. He was bought by John Pollock, Byres Farm, Pollokshaws, the owner of the famous Hiawatha 10067. For Dunure Ernest Mr. Pollock paid 1,100 guineas (£1,155). A very good young horse but somewhat gaudily-colored is Dunure Steel 19429. He was bought by James Dick, Balinton, Blair-Drummond, at 1,060 guineas (£1,113). There is a movement on for the purpose of more effectively advertising the Clydesdale breed, but a sale of this kind is an advertisement which speaks for itself. All of these horses were bought as commercial speculations. All of them are hired for 1919; more than one of them for 1919 and 1920, and Dunure Kaleidoscope is hired for 1919, 1920 and 1921. A draft breed which can produce stallions which sell at public auction for the prices named, to tenant farmers who have to earn their living that way, can hold its own against the world.

Ayrshires Prospering.

Ayrshire cattle breeders are having great trade for their bull calves, and have been making record prices. During January several sales were held, and wherever good milk records were shown in the pedigree, and

the dams were seen to have good silky vessels and pliable long teats, great prices were obtained. The highest prices on record for an Ayrshire bull calf was made at the Bargenoch sale of John Logan, on Wednesday, January 15. A. W. Montgomerie, Lessnessock, Ochiltree, there paid 1,420 guineas (£1,491) for the bull calf Bargenoch Royal Champion. This youngster is own brother to Bargenoch Casabianca, for which at the previous sale two years ago Mr. Montgomerie paid 320 guineas (£336). The dam of these bulls had in her first lactation period of 37 weeks a record of 1,045 gallons of 3.91 per cent. butter fat. In her second lactation period of 41 weeks her record was 1,053 gallons at 3.88 per cent. butter-fat. In her third of the same duration her record was 1,085 gallons at 4.09 per cent. butter-fat. At Mr. Montgomerie's own sale in November last, 15 bull calves, got by Bargenoch Casabianca, made an average of £141 each. The average for 17 bull stirks at the Bargenoch sale was £159 13s. 3d. Seven got by the home-bred Bargenoch Magnificent made £309 15s. At the previous Bargenoch sale in 1916 Bargenoch Bright Star made 380 guineas (£399), which was the record price up to that date. The extraordinary advance to 1,420 guineas indicates the growing influence and value of the milk record pedigree. All Ayrshire sales do not, of course, give equally great results, still the milk-record sales hold the field. At the Dunlop Place sale, held early in the month the highest price for a bull calf was 145 guineas, and the average for four heifer stirks was £49 7s. 0d. and for 15 bull stirks £48 6s.

At the present time Ayrshire breeders are endeavoring to frame a scheme whereby the milk record will be taken into account when Ayrshires are being judged in the show-ring. This is rather a novel proposal for Scotland, and the adjustments necessary are not too easily made. It is understood that a system of the kind prevails in the United States and Canada, and if it can be worked there, it can surely be worked here. A representative committee has been appointed to deal with the subject, and already one meeting of that committee has been held. It is alleged that the reason why some breeders are opposed to this system is because their herd milk records come well short of what would be regarded as a minimum in a herd that was to yield a profit to its owner. It is generally agreed that records of about 800 gallons in the normal lactation period of 40 or 42 weeks are wholesome and to be commended. When cows show four-figure records they are well above the normal or average, hence the very high prices for the bull calves out of such cows. One thing is certain, never again will men see in the showyard, the folly so long perpetrated in connection with Ayrshires, of giving the highest honors to cows of no special merit otherwise, provided they had the tight vessel, carried level and well along the belly, with the unflinching accom-

paniment of such a vessel, viz., small corky-shaped teats. It is amazing, yet it is a fact, that in days past it was considered a fault for an Ayrshire cow to give too much milk, to show a vessel which indicated heavy milk production. The chief trouble by which breeders of milk-record Ayrshires are now confronted, is the frequency with which their efforts at improvement are frustrated, though the appearance among their cows of animals having small, corky teats and tight, fleshy vessels. In spite of all their efforts to eradicate these features it will re-appear. The mania for that type was deep-seated, it long persisted, and its effects cannot be neutralized all at once. In spite of all the lessons taught by past experience there are still breeders, who, if they do not defend the type, do all in their power to cog the wheels of progress. Such cannot prevail, because utility and commercial value is too in the end triumph over mere "fancy," which is too often folly.

SCOTLAND YET.

CANADA'S YOUNG FARMERS AND FUTURE LEADERS.

A Farm Boy's Hobby.

EDITOR "THE FARMER'S ADVOCATE":

I have lived on a farm all my life except while I was going to school. I have been actively engaged in farming ever since I passed my entrance in 1913. The boy who is at home working on the farm with his father generally takes the place of a man from the time he is thirteen years old. He does just as much work as one hired, and does it better, because he takes an interest in it. Every boy has his hobby, some horses, some cattle, hogs and sheep; mine is horses. I have had sole charge of our horse stable ever since I was fourteen. We farm one hundred acres, growing mostly grain and clover seed. We do not keep very many horses; one good team of mares, a driving horse, and a horse to work the slings and hay fork. He also does to use with the driver in seeding time. We do all the other work, plowing, mowing, raking, drawing in and cutting with the team. They are always ready for work at seven o'clock a.m. They work till a quarter to twelve and a quarter to six, are well cared for, well driven, never abused and well groomed. And they do as much work as plenty of farmers get out of four or six working plugs not properly cared for. They are watered six times a day with a pail in summer and winter. In the hottest part of summer we remove the harness from the horses at meal hours as it can be done in less than five minutes and replaced in the same time. In harvest, when we are drawing in, we have supper at five o'clock standard time and then bring in a few loads afterwards. That is all right as you are always getting more done, but in the winter time when the farm boy has more leisure maybe there will be two or three events in the same week which he would like to attend. We will say he attends the first one, but when he goes to the next one some may complain about him going away so often. They do not realize that he has worked night and main till dark in the summer-time to finish harvest. What is the difference between playing overtime a little while and working overtime all the while. The city boy can go every night, besides enjoying the advantage of shorter distance. This is one reason why the boy sometimes leaves the farm.

S. A. D.

Halton Co., Ont.

Ontario County Boys' Banquet.

The Whitevale Class in Agriculture concluded a most successful five weeks' course by giving a banquet to their friends on the evening of February 20.

Several toasts were proposed by members of the class and responded to by men of recognized standing in the Province and County. Professor Wade Toole of the Animal Husbandry Department at O. A. C., Guelph, was the guest of the evening. Professor Toole is an Ontario County boy, whose home is only a couple of miles from where the banquet was held. The reception accorded him bore ample evidence that he was "a prophet honored in his own country." For almost an hour he spoke to an interested audience. The gist of his address was for all farmers to improve their crops and quality of live stock. Give and demand a square deal in all things, work for the good of the Dominion and not cater to the narrow confines of class and so stir up class consciousness. "We must be moderate but firm in all our demands."

Referring to the Dairy Industry, Professor Toole said that Canada's opportunity to capture the British market was never better than at the present. Denmark, he showed, had lost the British market by catering to Germany during the war, and it was not likely that Britain would renew her connections with Denmark so long as supply could be procured satisfactorily elsewhere and particularly from the colonies.

In responding to the Toast to "Our Class" which was proposed by E. V. Lawson, H. G. Michell and Geo. Toole, members of the class gave a short review of the work taken up during the course. The course started on January 21, and the number on the roll, exclusive of those who had attended only a few days and special lectures, was twenty-one. During the course the mornings had been spent in the class-room taking lectures on various agricultural subjects. The afternoons were devoted to practical work in seed and root judging, poultry killing and dressing demonstrations, milk and cream testing, and visits to neighboring farms for

practice in stock judging. About twenty-five classes of live stock had been used for this work. During the course, the boys had taken a trip to Toronto and visited the Parliament Buildings, a large dairy plant, a packing plant and the Union Stock Yards.

The 1919 course was considered one of the most successful yet held in Ontario County though the attendance has been considerably larger. The prizes offered for the best work throughout the course in stock judging were won as follows: Gordon McKay, first; Fred Ireson, second; F. H. White, third. The prizes for the best work in the class-room were won thus: F. H. White, first; Fred Ireson, second and the third was a tie between Gordon McKay and J. A. Torrance.

At the conclusion of the class, the members organized themselves into the Whitevale Junior Farmers' Improvement Association with officers as follows: President, F. H. White; Vice-Pres., Blake Annis; Sec.-Treas., Gordon McKay; Committee, Geo. Tool and Wm. Pugh; Auditors, Fred Ireson and H. G. Michell.

The objects of the Association are to continue the good work begun by the class and do any other work that will tend to the social and educational uplift of the community.

AUTOMOBILES, FARM MOTORS AND FARM MACHINERY.

The Spring Overhaul.

Weather conditions have been so unusual this winter that a larger percentage of cars than ever before have been operated during what we are accustomed to call the cold months. Nevertheless a great many machines were laid away in the fall. When you determine to take them out again there are a number of things that you should not forget. See that you have plenty of oil, grease and water; that all unnecessary play in the working parts has been removed, and that each bolt and nut is tight. Give an eye to the running gear and carefully inspect the tires.

All this is said in a general way. We now wish to be particular and give some good advice to those who own a small four cylinder car with a detachable head. It is always good policy to regularly grind the valves, and to accomplish this you first drain the radiator and then, in order, remove the cylinder head and the two valve covers on the right side of the engine. Now elevate the valve springs and pull out the pins under the valve seats. It is now possible to remove the valves. For the purpose of grinding, it is necessary to use a good paste. A large number of brands are on the market but do not adopt one until some expert has assured you that it is alright. Having determined upon a mixture, place some of it on the bevel face of the valve and then rotate the valve back and forth on the valve seat. Keep lifting the valve and turning it back and forth because the one thing that is absolutely necessary in this operation is a motion that will prevent any scratches or cuts around the entire circumference of the valve and seat. When you are satisfied that the valves are perfectly ground wash them with kerosene and cleanse the valve seat with maximum care. Any experienced motorist knows that disaster will attend the presence of foreign matter in the cylinder or valve guides. Hence in grinding valves make certain that your work is tidy, and that no particles of metal or grit get into the mechanism of the motor. Should you find that the valves or the push rods are very badly worn do not hesitate to buy new push rods as they are inexpensive and can be easily installed. It is also well to remove any valve springs that may have become inefficient. These springs should give you even action, and when they fail to do so good results cannot be obtained from the motor.

"Grind the valves and burn out the carbon,"—this is the most frequent order heard in an automobile repair shop. We have already told you about the valve grinding system for your little car and we can now advise you that while gas is used to burn the carbon for most cylinders, it is possible for any motorist to accomplish the same excellent purpose with a screw-driver or similar sharp instrument. Drain the water from the radiator, disconnect the wire at the top of the motor and the radiator connection at the cylinder head. Then remove the cap screws which hold the cylinder head in place. You can now lift it off and with your screw-driver scrape from the surface of the cylinders and piston heads any carbon that may have collected. Be sure that any carbon you remove does not get into a part of the motor where it can do harm. You may find that the circulation of the water in your car is faulty, but even suppose it should be running through the radiator, the hose connections and the water jackets without difficulty, it is always good policy to disconnect the radiator inlet and outlet, and subsequently pour a lot of water through the radiator in order that any foreign matter may be washed away and the tubes thoroughly cleaned out. Also run a large quantity of water through the jackets around the motor. Dust and dirt frequently get into a radiator through the cap and the presence of this filth may have a clogging effect that will sooner or later cause disconcerting results. If you have been in a collision or in any way accidentally jammed one of the radiator tubes use some solder to stop the leak, because even the smallest opening in a tube will allow a certain amount of water to run away and, if you are at all forgetful you may not replace the water in time to stop inconvenience. If the tube is badly broken or jammed it will be necessary to cut out the affected part and solder in a new piece of tube. When a radiator has been badly damaged it is not ad-

visable to spend a great deal of time repairing it, because a new one can be installed very easily and at a fair expense.

Tires give mileage in direct ratio to the amount of care put upon them. Before taking your machine out this spring, go over each casing, and if there are any cuts, see that they are washed out with kerosene and then properly sealed up. It does not take a small bruise very long to become a large one if sand and grit are allowed remain in it. With tires as well as everything else, the old adage remains perfectly true,—"an ounce of prevention is worth a pound of cure."

If you are at all fussy about squeaks and rattles, clean the spring leaves thoroughly and then have them well oiled. A cheap system is to use the old oil from your crank case. Some people bind the springs with electric tape in order that the lubricant may be allowed to work in freedom from dust and dirt. The idea is an excellent one but not absolutely necessary if the springs are cleaned and oiled at regular intervals.

With a rag and some sweet oil the upholstery of your car can be made to almost look as good as new. A small brush can be first utilized to clean out the pleats in the upholstery and the oil applied subsequently. Rub the cushions until they are thoroughly dry, as otherwise some of the oil may remain and damage clothing.

AUTO.

Batteries.

1. How is a storage battery built?
2. What chemicals do you use for the purpose and the quantities? Could you tell me the chemical they use to make it test 1300, the quantity they use and the way they use it?

H. W. P.

Ans.—1. If you are inexperienced do not attempt to rebuild a storage battery. This work can only be properly attended to by an expert.

2. Chemicals do not bring a battery up to 1300. Chemicals should be put in at 1050 to 1100 and the battery charged from an outside source until it reaches 1300. Batteries are extremely sensitive and require a great deal of care. Do not tamper with them but rather place their maintenance and up-keep in the hands of some experienced workman.

AUTO.

Heat Values of Wood.

In a discussion by the Forest Products Laboratories, Montreal, of the heat values of dry wood, it is stated that the below amounts of wood have equal heating value to one ton of anthracite: 1.00 cord of birch, 1.15 cord of tamarack, 1.20 cord of Douglas fir 1.50 cord of jack-pine, 1.55 cord of poplar, 1.60 cord of hemlock, and 2.10 cords of cedar.

The above comparison is based on the supposition that the calorific value of the coal is 13,000 B. t. u., but the grade of coal received in Canada last winter was much less, possibly as low as 10,000 B. t. u., which, in comparison, would decrease the above-stated quantities of wood by 23 per cent.

Comutator Blackens.

I have car equipped with three-brush generator, this generator fires at the brushes and blackens comutator and if not cleaned every fifty miles will not generate at all. I have had new brushes put in and it is no better. What is cause of this and how can it be repaired?

D. F. M.

Ans.—It is difficult to answer this question because there are a great many different makes of generators in the market. You may be using carbon brushes where copper ones would be more suitable and it is also possible that the brushes, though the proper kind, may be set wrong. If you desire further information please be good enough to send the name of the generator.

AUTO.

THE DAIRY.

Waste of feed very often results from the herdsman not properly balancing the ration.

If an enquiry comes for stock or information about your method of feeding, it is courtesy to answer it, and answer it at your earliest convenience.

Is the price of milk commensurate with feed costs? The only way to know whether you are keeping the cows, or they are keeping you, is to have some idea of what it costs in the way of feed and labor to produce a hundred pounds of milk.

☐ Raphella Johanna Aaggie 3rd, a seven-year-old cow owned by Napa State Hospital, California, recently secured the world's championship for a year's milk production under official test by giving 30,641.2 lbs. of milk, making 1,033 lbs. of butter. This cow pastured in an alfalfa field, and one pound of grain for five and a half pounds of milk was the ratio of the concentrate ration. While on the test this cow gained 300 pounds. She weighs over 1,600 lbs.

Have you told your neighbors how you fed and managed that cow which made such a good record? If you haven't done so, it is your duty as a citizen to let others have this information. Of what use are we in the world if we do not help our neighbor in every way possible? Too many who have made a success, keep

their methods so tightly locked up that no one but themselves profits by them. At your farmers' club meeting would be a good place for you to divulge some of your secrets of feeding and herd management for the benefit of your neighbors.

The Brant District Holstein-Friesian Club recently held their annual meeting in Brantford, when about fifty members were present and entered freely into the discussion of questions of vital interest to the Club. President E. C. Chambers gave a resume of the work accomplished during the past year, and drew attention to the fact that 90 head of cattle had been sold at the two sales, realizing in the neighborhood of \$16,000. A resolution was passed fixing the dates of sale as the second Wednesday in March, and the third Wednesday in December, each year. This comes into effect next fall. The election of officers gave T. W. Craig, of Brantford, the Presidency; W. Lemon, Lyden, of elected first Vice-President; C. Lee, of Kelvin, second Vice-President; N.P. Sager, of St. George, was re-elected Secretary-Treasurer.

Durham County Holstein Club held their second annual meeting and banquet at Orono. Both the business meeting and the banquet were well attended. S. Jose, President of the Club, reviewed the great history-making events of the past year, and predicted a bright future for the breeders of Holstein cattle. It was decided not to hold a sale this year, but the members were urged to prepare for a sale in 1920. During the afternoon the herd of A. J. Tamblin was inspected. The speakers at the banquet were G. A. Williams, the District Representative; R. M. Holtby, Mr. De Long, Rev. Rae, C. G. Armstrong; Geo. Stevens, Reeve of Darlington Township; F. W. Bowen, Reeve of Clarke Township; A. Henry, Secretary of the Agricultural Society; and W. L. Smith. A very interesting evening was spent. Officers elected were: President, S. Jose, Newcastle; Vice-Pres., A. J. Tamblin, Orono; Sec.-Treas., A. H. Gibson, Newcastle.

Milk having an average of 3.25 per cent. fat, when separated with four hand machines at the O.A.C., Guelph, produced cream containing an average of 35.45 per cent. fat. Milk with 3.93 per cent. fat separated under similar conditions produced cream testing an average of 44.96 per cent. fat. These results indicate that the per cent. of fat in the milk separated has quite a marked effect on the percentage of fat in the cream. Increasing the speed of three disc type cream separators, six revolutions of the handle per minute above normal, caused an increase in the percentage of fat in the cream of about one-half of one per cent.; while a decrease of six revolutions per minute caused a decrease of about one-half of one per cent. fat in the cream, all other conditions being similar in both cases. With a "suction-feed," hollow-bowl separator, the very opposite of the foregoing results were obtained—the higher the speed, the lower the percentage of fat in the cream; and the lower the speed the higher was the test of the cream for fat.

Flat cheese made in May and June at the Dairy Department, O.A.C., Guelph, and paraffined when about one week old saved from 1.5 per cent. shrinkage when one month old, to 3.1 per cent. when three months old, as compared with similar cheese not paraffined. Both lots were held in cold storage at about 40 degrees F. Similar lots held for one to three months in an ordinary curing room lost in weight 2.4 per cent. in one month when coated with wax, and 4.7 per cent. not coated. Cheese, paraffined and weighing sixty to seventy pounds each, lost 1.3 per cent. in weight during one month in cold storage, and 2 per cent. in three months. Similar cheese not paraffined lost 1.4 and 2.8 per cent. in one and three months. In the curing room the losses on paraffined lots were 2.2 and 3.6 per cent., respectively, for one and three months; the lots not paraffined, under similar conditions, lost 3.1 and 5.3 per cent., respectively, during one and three months. Similar results were obtained with September cheese and indicate that there is a very marked saving of shrinkage as a result of coating cheese when about one week old.

The chief objection to the manufacture of buttermilk and cottage cheese is the labor involved. Recent tests made at the dairy of the O. A. College indicate that the curd can be separated by means of centrifugal force in a separator bowl. While we have not applied it in a commercial way, our work indicates that the separation of curd by centrifugal force from sour milk is quite feasible. There are now special machines for this purpose built on the principle of a laundry dryer. We obtained from nine to as high as twenty-nine pounds of cheese from 100 pounds of sour milk, averaging 15.5 pounds to the hundred. The low yield was too dry, and the high yield too moist. From twelve to fifteen pounds of excellent food material can be obtained from ten gallons of buttermilk or sour skim-milk. This will spread on bread like butter, and may easily replace the more expensive butter for at least one meal in the day. If the manufacturer received fifteen cents per pound, which would pay well, the returns per hundred pounds sour milk would be from \$1.80 to \$2.25. If the consumer paid twenty to twenty-five cents per pound for it, this soft cheese would be comparatively cheap food. Cheese of this class was held in cold storage at a temperature of 40 degrees F., packed in 14-lb. butter boxes, and kept in good condition for six weeks.

The Situation in Denmark.

Some of the latest information to be made public regarding the situation in Denmark, our keenest rival, was received by J. A. Ruddick, Dairy Commissioner, in the following letter from Harold Faber, Agricultural Commissioner to the Danish Government in London:

"With regard to the outlook in Denmark and our export to United Kingdom, which you ask about, it is broadly as follows:

"The number of cattle has been reduced from 2½ million to 2 million; the number of cows and heifers with one calf, from 1,310,000 to 1,024,000, but on account of the absence of oil-cake and corn the milk yield has fallen off to a considerable extent. From this it follows that the production of butter has been reduced. At the same time the production of margarine in Denmark has been completely stopped for want of raw materials. That means that the consumption of margarine, 1,000,000 cwts. annually, has had to be replaced by butter. Furthermore, Sweden and Norway, that used to export butter to England, have been buyers of Danish butter. From all this you will see that the export of butter to England has necessarily been very much curtailed. At the same time considerable quantities have been offered regularly to the British Government, but they have not accepted the offer as they had sufficient on hand.

"With regard to the export of bacon, we have for a long time had an insufficient quantity for the home supply, the stock of pigs having been reduced from 2,500,000 to 500,000.

"Consequently, I am sorry to say that Denmark will not, as you supposed, be in a position to supply the United Kingdom with dairy products. This all the more because the demand for milk to the suffering nations in Europe is expected to cause a large export of milk as fresh and dried milk to these countries, and, therefore, leave still less for butter-making and pig raising.

"At present the butter production in Denmark is very little more than required for home consumption, say 17,000 casks weekly, of which 16,000 are consumed at home."

A Review of the Creamery Industry.

Changing conditions and methods of manufacture in the creamery industry were noted in a recent address by L. A. Zufelt, Eastern Dairy School, Kingston, who is quoted in part as follows:

"The process of butter making at the present time seems to be undergoing a series of evolutions and many of us are beginning to wonder just where we are at and if we have got to go back to school and learn the science of butter making all over again. There have been some rather startling announcements made of late in regard to new methods advocated for the improvement of creamery butter, and whilst I am in favor of taking advantage of every aid which science may evolve for the improvement of the finished article, at the same time we must not overlook the fact that the quality of the raw material has a preponderating effect on the quality of the finished article over and above any mere deviation in method of manufacture.

The one big weakness which affects dairymen in general is a tendency to apply local or surface remedies for evils deep seated and of constitutional character. From time immemorial we have been taught that in order to have a fine quality of butter we must first produce a fine quality of milk and cream, feed the cows on good wholesome foods and use every precaution to guard against the flavor being injured from any cause whatever. The development of lactic acid in the cream by the butter maker was considered of paramount importance in order to produce that distinctive butter aroma so characteristic of fine, well-made butter. The market to-day apparently demands a mild, almost tasteless butter, and we are getting away from that distinctive aroma always associated with good butter in the past. I have frequently wondered if we are always safe in being guided by the opinions of the trade. Do these people fairly reflect the desires of the consuming public, or do they not rather reflect the opinions of the dealers as to the qualities which are less risky and show the smallest percentage of losses. There may be a vast difference between the qualities which the consumers may want and those which the dealers find profitable in handling. It should be our business as educators to co-ordinate these two requirements.

"When the buttermaker separated the cream from the milk himself at the creamery he could by pasteurization and the use of a pure culture of lactic acid organisms produce a butter which not only had that desirable distinctive aroma but had good keeping qualities as well, which made it a safe commodity for the dealer to handle. As the whole milk creamery is practically extinct and as the butter maker is being furnished with a constantly changing quality of raw material the whole process of butter making is being gradually changed to meet in the first place the demands of the dealers for a safe commodity to handle and which will be reasonably satisfactory to the public. Our effort to do this has resulted in the production of a butter of entirely different characteristics to those required a few years ago.

"We are now making a butter which may be more easily imitated by the 'Oleo' manufacturers and for that reason is to be regretted. It is the tendency of human nature to travel along the lines of least resistance and we as butter makers have found it more convenient to cover up the defects in our butter by changing our methods of manufacture rather than attack the real cause of these defects by demanding a better quality of cream and by being prepared to pay a premium for this cream when it is offered.

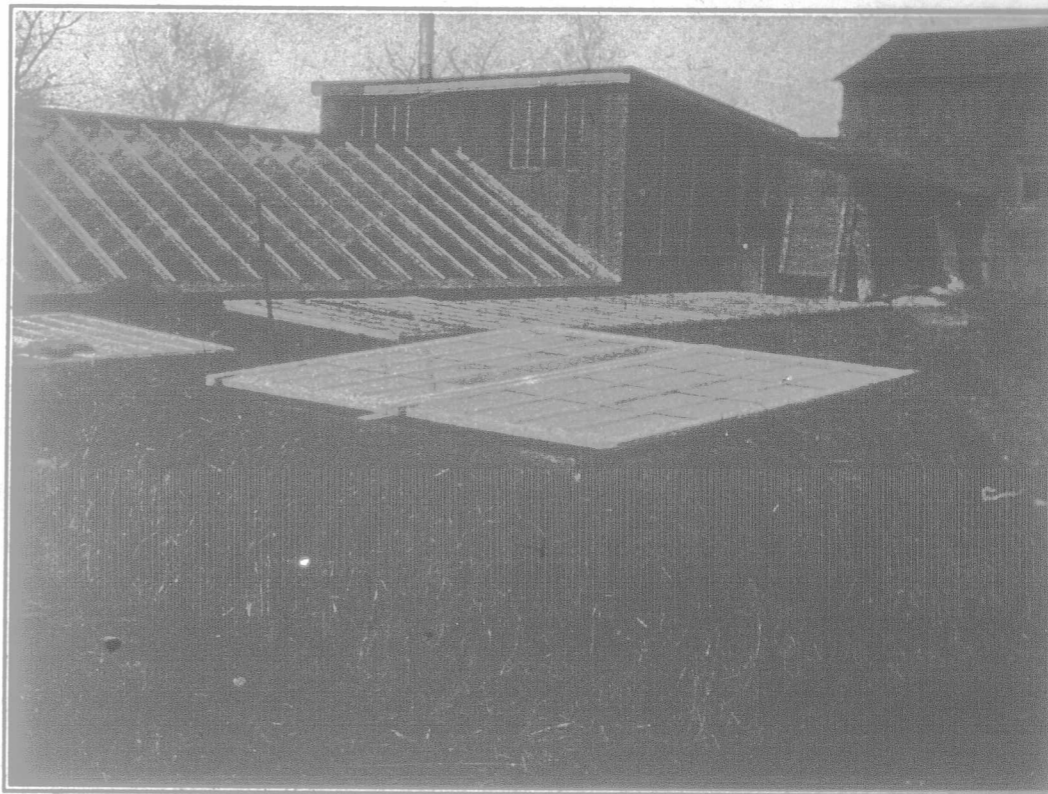
"Pasteurization is the one great aid to be used to give butter its keeping qualities. If the cream has a high acidity, first warm up to between 70 and 80 degrees F. and then add sufficient neutralizer to reduce the acid to form .28 to .35%. Then pasteurize to a temperature of 170 degrees F. for 5 to 10 minutes and cool to churning temperature. The longer the period between pasteurization and churning the better the results, especially in the texture and grain. At least three hours should elapse before churning. Wash the butter with pure water in which germ life has been rendered inactive at a temperature 2 to 5 degrees lower than churning.

"In order to have control of the moisture content, pass the butter through the rollers a few times and allow all free moisture to escape. Then make a test for moisture, and salt by the trench system adding at the same time water necessary to bring the moisture content up to the point desired. Work the butter from 15 to 25 minutes to ensure a perfectly uniform color, thorough dissolution of the salt and a perfect incorporation of moisture with a bright, smooth, waxy texture. It is absolutely necessary for every creamery to be supplied with acid and moisture tests and, in addition, a fat test of each vat must be made each day if we wish to do our work intelligently and produce a uniform quality of butter. To simply say you have not the time cannot be accepted. You must make up your mind that you have got to take time to perform these tests or else get out of the business and I may tell you right now that the butter makers who think anything is good enough and that performing these necessary tests is too much trouble had better quit while the quitting is good."

sized sash are most common and are made by simply doubling the length of the frame and putting a three-inch piece down the centre to support the sash.

Vegetable growers who annually use many hotbeds conserve manure by digging a pit in the fall and setting the frame on this when the beds are made. These men usually haul manure during the fall and winter months also, and cover the ground in the hotbed yard. This is to prevent the ground from becoming frozen so that when the season for making the hotbed comes this manure can be replaced by fresh manure of which only ten or twelve inches will then be required.

Fresh horse manure should be secured that has been stored a few days so that it will ferment readily. If the manure is rather dry, hot water will help to start fermentation. Ordinarily, when first piled the manure will begin to steam in a day or two. When it has started to ferment well, it should be turned over again, turning the pile inside out so to speak. After the manure has then been allowed to stand two or three days, or until the entire mass is hot, it is ready to prepare for the frame. As the manure is placed on the site of the hotbed, it should be laid down in layers of five or six inches in depth, and each layer tramped firmly, especially along the edges. The manure will settle five or six inches so that allowance should be made for this when stacking it for the frame. After the manure is all piled and well tramped to a depth of from eighteen to twenty-four inches, depending upon the length of time it is expected to provide heat, the frame may be set on top of the pile and from four to six inches of soil placed on the manure. If flats are to be used for growing plants, two inches of soil will be all that is necessary to absorb the steam and



A Well-made Hot Fed in Operation.

HORTICULTURE.

The Hotbed.

Although the commercial truck or vegetable grower has come to rely largely upon the greenhouse for the early forcing of plants, the hotbed has, nevertheless, a very common use with the small home gardener, and even the vegetable specialist who may have reason to employ hotbeds quite extensively in addition to his available greenhouse space. Where the hotbed is used seeds can be sown outdoors before the snow is off the ground, and the plants, therefore, have from four to six weeks' start before warm weather comes in the spring. This early start means early marketing for the vegetable grower and early table delicacies from the farm garden.

It is advisable to locate the hotbed in as warm a position as possible, preferably close to some building, and, if at all possible, facing the south. It should be protected from wind, and water should be within easy access. Moreover, if more than one bed is used, they should be so arranged that it will be easy to handle the plants and do all the work that is necessary around them, such as handling the glass, shovelling snow and handling the plants. Ten feet between each row of beds is probably not too far. Most hotbeds are heated by the fermentation of fresh horse manure, although some are heated by a steam pipe extensions from nearby greenhouses. The standard size of hotbed sash is three by six feet, and it is a good plan, unless for some special reason, to use sash of this size. However, a storm window is frequently used and in such a case the frame should be made to fit. The frame is constructed so that there is a fall of one-inch for every foot in length. This is to provide sufficient slope to catch the rays of the sun and to run off rain or moisture which may collect on the glass. The high end of a standard hotbed should be sixteen inches in height, and the lower end twelve inches. Hotbeds of double-

to keep the air pure. Manure should be piled around the frame on all sides right up to the top, because this keeps the sides as well as the bottom supplied with heat. The top sash should be put on and the bed allowed to stand for three or four days so that gases can escape from the manure, and so that the temperature may reach a safe height for the sowing of the seed. If the sash is lifted for a little while each day, the gases may escape from the interior of the frame, and as soon as the temperature has come down to eighty-five or ninety degrees Fahrenheit, which will be about the fourth day, the soil should be raked level, sticks, stones and other refuse removed, and planting begun.

Considerable attention is, of course, required in order to successfully operate a hotbed. This is evident if only because the hotbed is used during severe winter weather. Watering and ventilating must be given very careful attention; the former being done only on bright days. Watering should be done in the morning, preferably with a can that throws a fine spray, and then when the plants really require it.

Hotbeds are ventilated by supporting one end of the sash on a small block of wood, or by raising one side of the sash and blocking it up. The side facing the wind should never be opened. As the season advances and there is less danger of chilling the plants, the sash may be partly drawn off, while in the warmer weather they may be taken off entirely during the day. A thorough circulation of air is essential, but too much cold air will check the plants. Ventilation is always in order after watering, especially if the sun is bright, in order to avoid scalding the tender plants.

As soon as the seed is sown in the hotbed it will be necessary to watch for weeds, which will appear before the crops that have been sown. If the plants begin to crowd they can be thinned out some, and the soil can be stirred to advantage as the plants are growing. The bed can be made to give a good supply of lettuce, radish, beets and carrots, while young tomato, cabbage, celery, onion, cauliflower and many other plants can be started in the hotbed. At the latter end of the season musk melons can be grown in the spent bed.

POULTRY.

Tuberculosis in Poultry.

Numerous enquires have been received of late regarding tuberculosis in poultry, and this article is written for the purpose of giving our readers as full information as we can with regard to the disease. Practically everything said here has been secured from Bulletin 255, of the Ontario Department of Agriculture. The illustrations also are reproductions from originals

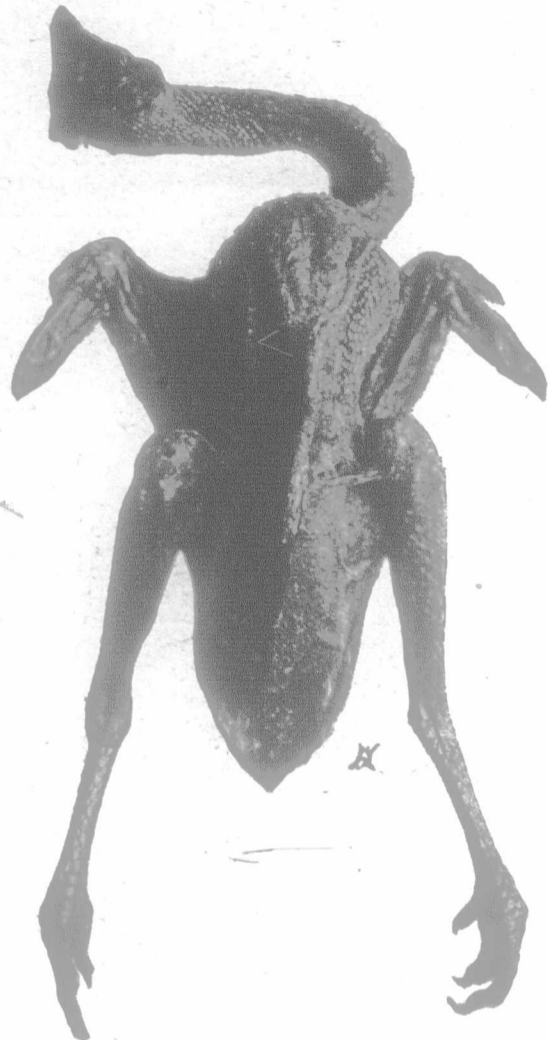


Fig. 1—Body of a Hen Showing Advanced Stages of Tuberculosis.

used in the above-mentioned Bulletin. It appears that tuberculosis of poultry is very widely spread over the Province of Ontario and it is quite evident from the enquiries which reach this office that it is present in a great many flocks where the owner has not yet recognized it. The first effect of tuberculosis is to cut down egg production, and its final effect may be to kill a great many of the birds, or otherwise so decrease their usefulness as to make the whole flock a burden rather than a profitable asset to the farm.

The disease is caused by a very small organism, visible only under microscopes of high power. When the organism gains entrance to the tissue of the body, it feeds on whatever juices may be surrounding it and

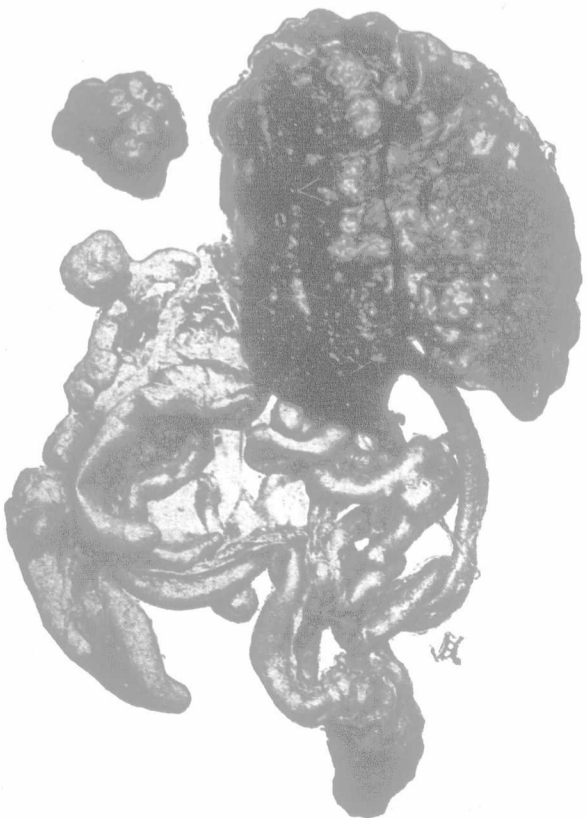


Fig. 2—Liver, Spleen and Intestines of Hen Shown in Fig. 1.

multiplies with variable rapidity. During its development it produces a toxin or poison, which causes a local injury and finally the degeneration and death of the affected tissue cells. A tubercle is nothing more nor less than a mass of such affected cells, but it is very important in that bacteria pass from it through the blood or lymph stream to other parts of the body and produce other tubercles. They are usually of a pale yellow color, but vary somewhat in texture. In fowl they are usually cheesy or gritty in texture and vary in size from less than a pinhead to as large as an egg, although the commonest size is that of a pea. Tubercles are most commonly found in the liver, spleen, intestines, and mesentery, but other parts of the body, such as the lungs, bones, ovaries, kidneys, etc., are frequently affected.

Symptoms of Tuberculosis.

In live fowl it is difficult to detect tuberculosis in its early stages. Later on, however, one or more of the following symptoms are likely to develop: 1. First symptom worth remembering is emaciation, shown very well by Figure 1 which is that of a bird in the advanced stage of avian tuberculosis. The owner of this particular fowl who sent it to the Ontario Agricultural College for examination stated that it had continued to eat heartily, but had not been laying for some time. The crop was full of grain. Birds affected with the disease may continue to eat as much or more than the healthy fowl, but eventually they may become very thin, the breast and legs losing all their flesh and, if the bird is lifted, it will be found to be very light in weight. It is worth noting, however, that even in the advanced stages some birds may remain fat, but if so they will be very mopy and inactive. 2. Paleness about the unfeathered parts of the head, the eyes and mouth, comb and wattles is another symptom of the disease. These parts will become dull and although the eyes usually remain bright and clear they are usually lacking in life and fire and are often closed. The feathers become dry and lack lustre. 3. Listlessness is indicated by gradual loss of vigor and activity, the birds being inclined to mope around and lie down when not feeding. 4. Lameness occurs only when tuberculosis develop in the bones and joints. 5. Egg laying is frequently stopped altogether.

Practically the only sure way of determining the presence of tuberculosis in fowl is to conduct a post-mortem examination on birds which have died and are suspected of having had the disease. If, during the course of this examination, tubercles are found in the liver, spleen or other parts of the bird, the indications of the disease are, of course, clear enough. It is however, wise and advisable to have the examination made by competent persons, because other diseases cause tubercles which might be confused with those of avian tuberculosis. We would suggest, therefore, that birds which are lost from the flock from unknown causes and where the symptoms are similar to those enumerated above, should be sent for examination to the Bacteriological Laboratory, at the Ontario Agricultural College, Guelph, or to the nearest poultry expert of a Provincial, or the Dominion Department of Agriculture. Any of these officials will make an examination and an accurate report free of any charge to the owner of the flock. Anyone who knows the separate organs of the fowl may conduct a post-mortem examination themselves, but to be absolutely sure it is necessary, of course, to have a bacteriological examination made.

Figure 2 shows the liver, spleen and intestines of the hen shown in Figure 1. The white-looking swellings are the tubercles and a very large one is to be noted at the end of the intestines, just at the bottom of the picture. The droppings from this bird were very much infested with the bacteria which cause the disease; so that such a bird would be a very dangerous spreader of the disease. Figure 3 shows livers from two hens affected with tuberculosis. The smaller one shows the early stages of the disease, only a few tubercles being present and the liver retaining its normal size and weight, which was about two ounces. In the case of the larger one, the disease was very much advanced, the weight of the liver having increased to about nine ounces. The liver is really the most commonly affected organ, and the tubercles are scattered over the surface and sometimes throughout the whole mass of the tissue. A tubercular liver is usually softer and more easily torn than a healthy one, while, as mentioned previously, an enlargement frequently accompanies the ailment, the enlargement usually being due to an attempt on the part of the organ to get the better of the disease.

The spleen is the little purplish-red organ situated just under the liver, and is usually affected whenever the liver is tubercular. Like the latter organ, the spleen frequently becomes irregular in shape and enlarged. Next to the liver and spleen the intestines are the most commonly affected organ and tubercles will be found within or on the intestinal walls, in the form of hard lumps about the size of a pea or larger. Their presence very often causes a constriction leading to partial stoppage of the bowels. When this organ is affected the disease is rapidly spread through the flock by means of infested droppings. Infection of the lungs is not so common, although occasionally seen. When tubercles are present the action of the lungs is interfered with and the lung tissues gradually destroyed. In small chicks tubercles of much the same nature are produced by the disease known as Aspergillus, caused by the growth of a fungus occasionally present on the feed.

Tuberculosis is also likely to develop through the presence of tubercles in the bones or in the ovaries. In the former case inflammation, sourness, softening and decay frequently develop, while in the latter case the eggs may be infected with tubercle bacteria and chicks hatched from such eggs are likely to develop the disease at an early date.

The disease usually enters the flock through the

addition of a bird suffering from it and it is incumbent, therefore, upon every poultry raiser to watch carefully for outward symptoms. Once it has been definitely traced to the flock, control measures are in order. These are described as follows in Bulletin 255:

Control and Eradication.

"Care should be taken in buying new stock that birds are obtained only from flocks known to be free of the disease. When once the disease gets established in a flock it is difficult to eradicate except by the most drastic measures. The quickest and most effective



Fig. 3—Livers from Hens Suffering from Tuberculosis.

method is to kill off all birds that have run with those proven to have the disease and to disinfect the entire premises as thoroughly as possible. New stock should be obtained from healthy sources, but should not be placed on the runs which had been used by the diseased flock, for a year or more. The houses, providing they have been thoroughly disinfected, may of course, be used. The first thing to do in putting the poultry premises in sanitary condition is to scrape the roosts, walls, ceilings, floors and nest boxes of the houses thoroughly clean with a hoe or other convenient implement. Accumulated manure may be mixed with lime, spread on the land and plowed under. Loose litter, pieces of boards or other valueless material should be completely burned. When this has been done the entire inside of the houses may be washed down with some good disinfectant such as carbolic acid, one part in twenty of water, or some good coal tar disinfectant. Any of these may be put on with a spray pump. In place of these, quicklime in the form of whitewash may be used,

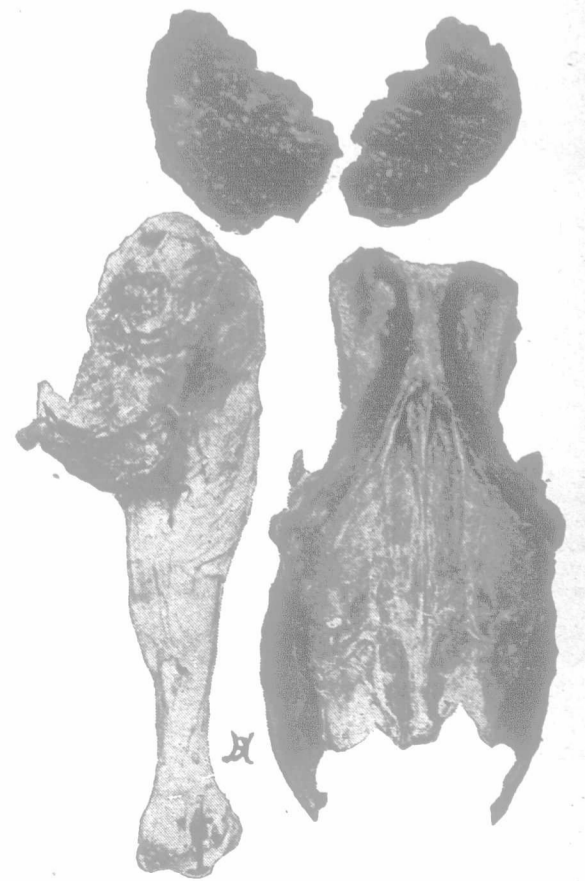


Fig. 4—Tubercular Lungs and Bones from a Hen.

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prepared as follows: Slake the quicklime by adding water in the proportion of one and one-half pints of water to each quart of lime, or by weight, sixty parts of water to one hundred parts of lime. The resulting dry powder is hydrate of lime. For use mix one quart of this with four quarts of water. This must be freshly prepared in small lots and used immediately. It is best applied by means of a spray pump, although it may be put on with a brush or broom. If a spray pump is used, the slaked lime should be put through a fine sieve or strainer in order to prevent clogging of the nozzle. It is important that every crack and crevice and every particle of surface be covered with the disinfectant. After disinfection, clean boards may be placed beneath the roosts to catch the droppings, thus facilitating the work of future cleaning. Slacked lime placed on these boards will absorb the moisture from the droppings besides adding to their fertilizing value. Disinfection of the houses should be carried out at intervals as long as any diseased birds remain in the flock.

"To disinfect the runs is a difficult matter, because it is impossible to have the disinfectant come into contact with each minute particle of soil. The best that can be done is to completely cover the ground with freshly-slaked lime and plow under. Sow some quick growing crop for green manure, lime and plow under again. By this method the soil can eventually be well disinfected. The fact must be kept in mind, however, that any tubercular fowls may be continually reinfesting the soil by voiding the tubercle bacilli with their droppings; consequently, it would be impossible to keep soil free from infection so long as diseased fowls were kept on that ground."

FARM BULLETIN.**Hickory Hill Herd Brings a Fair Price.**

It is seldom that Ayrshire breeders have the opportunity of securing such high-quality stock, at their own price, as was afforded at N. Dymont & Son's sale, at Brantford. Bidding was not as brisk as one would expect with the quality of stock which was offered. It was a good day for the buyer, as he secured excellent stock at a comparatively low figure. Of course, when looking over the catalogue one will note that many of the cows were well past their prime; consequently they were not worth as much as younger stuff. The young cattle offered would undoubtedly have brought a higher figure had they been in higher fit. F. Bryne, of Quebec, purchased several head. He was the only buyer from outside of Ontario. The following is a list of the animals selling for \$100 and over:

Snowdrop of Hickory Hill, Frank Byrne, Charlesburg, Que.	\$135
Primrose of Hickory Hill 4th, Frank Byrne.	170
Snowdrop of Hickory Hill 2nd, Hunter Bros., Burlington.	360
Snowdrop 4th of Hickory Hill, P. Cairns, Brantford.	120
White Lass of Hickory Hill, W. H. Greenzabach, Woodstock.	250
Florence of Hickory Hill, P. Cairns.	100
Lassie of Hickory Hill, Hunter Bros.	325
Lassie 2nd of Hickory Hill, M. McDonough, Branchton.	125
Lassie 3rd of Hickory Hill, Morley Shaver, Millgrove	110
Hillhouse Victoria, Major Eaton, Oakville.	175
Nellie Gray of Hickory Hill, J. T. McDonough, Branchton.	260
Eva of Hickory Hill, M. Shaver.	125
Sylvia of Hickory Hill, M. McDonough.	125
Blossom of Hickory Hill, W. H. Greenzabach.	360
Laura of Hickory Hill, R. W. Smith, Hagersville.	105
Milkmaid of Hickory Hill, Frank Byrne.	295
White Floss, R. Kline, Cayuga.	205
Lady Diamond, W. J. Connelly, Strathroy.	145
Marguerite, E. T. Tietz, Hagersville.	150
Trixie of Hickory Hill, R. J. Smith, Hatchley.	190
Lady Sydneham 2nd, Frank Byrne.	200
Scottie of Hickory Hill, A. Henderson, Athens.	155
Dairymaid of Hickory Hill 3rd, T. J. Arthur, Ancaster.	200
Rosebud of Hickory Hill, P. Cains.	135

Changes in the Ontario Department of Agriculture.

Changes in the Ontario Department of Agriculture were announced last week. Dr. G. C. Creelman, President of the Ontario Agricultural College and for two years Commissioner of Agriculture for Ontario relinquished the later post and will devote himself entirely to work at the college. C. F. Bailey, erstwhile Assistant Deputy Minister assumes the role of Agricultural Commissioner and in such capacity his duties will continue to include general supervision of the Agricultural Representative service, supervision of the agricultural work of the Lands, Forests and Mines Department, and whatever may be suggested in the minister's statement when he announced that "The change is an recognition of the splendid work which Mr. Bailey has rendered as an official of the Department during the past six years, and will also give scope for enlarged usefulness to the live stock and agricultural interests of the province, with which he is very familiar.

Justice Miller, who was Assistant Commissioner, is to remain with the Department and continue his work in connection with the standardization of potato varieties and supervise similar lines of work in regard to the improvement of seed supply of other staple farm crops.

Percheron Breeders Meet

A two-days' convention of the Canadian Percheron Horse Breeders' Association was held in Calgary, on February 12 and 13, and several proposed changes in the by-laws were considered.

A very generous appropriation has been set aside for prizes at the majority of Western shows, while the Futurity will be very much encouraged. At Calgary, Edmonton, Regina, Saskatoon and Brandon Summer Fairs there will be a first prize of twelve dollars and a second prize of eight dollars given for the best stallion, Canadian bred; best mare, Canadian bred; best grade Percheron gelding, and best grade Percheron mare. The two latter must be two years and up, and sired by a registered Percheron horse. At many of the smaller Western fairs there will be a first prize of eight dollars and a second prize of five dollars given for the best 1919 foal, sired by a registered Percheron horse, and the best Percheron mare or gelding sired by a registered Percheron horse. A sum of \$250 was voted for the Toronto Fair to be awarded for such classes as may be named later.

A very enthusiastic discussion arose over the 1919 Futurity competition. It was voted to have one competition for the entire Dominion. To overcome the handicap which may be experienced by breeders unaccustomed to showing, it was decided to grant the exhibitors forty dollars for each and every animal shown in the Futurity, up to four head. The prize-list for the Futurity is not yet announced, but the Association decided that there shall be fifteen prizes for stallion colts and fifteen prizes for filly colts. Entries will be accepted up to May 1, but notification of the number of colts which each exhibitor proposes to enter must be sent to the Secretary at once. The Secretary announced fifteen entries already in his hands.

A resolution was carried at the Convention calling upon the Alberta Government to adopt a more lenient attitude towards the Percheron horse, and show a greater appreciation of his value. Another resolution was addressed to the Canadian Government, particularly the Department of Agriculture, asking that every step possible be taken to secure for the breeders of draft horses in Canada a foreign trade, and to encourage the breeding and production of the heavy draft horse in Canada. The Association pledged itself to render every assistance in the way of co-operation to any project looking to the advancement and development of our foreign trade in draft horses, realizing that the time is rapidly approaching when the price to be received for our best draft horses in Canada will be governed by the foreign demand.

Still another resolution was addressed to the Saskatchewan Government asking that typical Percherons be placed on institutional farms, under the control of the Provincial Government.

Soldier Sentiments

EDITOR "THE FARMER'S ADVOCATE":

Since the signing of the armistice the men of the Canadian corps in France, Belgium and Germany have been following with a natural interest everything in the home papers relating to demobilization, reconstruction and after-the-war plans. Practically all these problems have been considered by the Government, the G. W. V. A., or political reformers, but it has occurred to us that it might be of some interest to know the opinion of the overseas soldiers themselves, what they are thinking, and what they are talking about. We, of course, can speak for only one unit, but every unit is fairly representative of the whole corps, with the same problems, the same point of view toward them, and the same freedom from party or friction.

We have read one suggestion that the overseas troops be absorbed as post-war immigration, demobilization to cover a proportionate length of time—as though the Canadians here were devoid of initiative, vocational training, knowledge of Canadian conditions, or with no homes to go to. No wonder that we hear some of the boys speaking of emigrating to Australia after "emigrating" home—a country which has kept itself vastly more free than Canada has during the war, and whose Premier has not been afraid to "buck" the Imperial authorities when occasion demanded.

We have also read a dirge from Sir Edmund Walker about keeping us here "on this distressed continent" for some time to come. If the Venerable Knight is too old, or physically unfit to come and do his share of the good samaritan work, we would suggest that he raise and maintain a volunteer force for that purpose.

It must be admitted that the average Canadian soldier dislikes soldiering, and that military discipline grates on his nature even more now than in "rookie" days, when he had war to look forward to, and during the war no force of its size has had a finer discipline than the Canadian corps, endured because conditions demanded it. But now that the war is ended, so far as fighting goes, discipline is made up of the trivialities which loomed so large in the peace-time army. Although every other allied army has done away with brass buttons and burnished steel parts, such things take up the time of the Canadian soldiers here. The longer demobilization is delayed, the poorer citizens the men will make. Men who have nothing to do—and there is nothing we can do in a constructive or productive sense except such dinky jobs as shining brass bottoms—do not keep contented, and living in the powder-charged air of Europe, they may not return as docile citizens as some may hope.

Probably the army educational scheme has been considerably advertised at home, but speaking for this brigade of nearly a thousand men, about two dozen only are taking up the work with genuine interest.

Textbooks are scarce and inadequate for one thing. When the scheme started the students were allowed to miss the morning harness-cleaning parade—harness that is used perhaps once a week and cleaned daily. The afternoons were half-holidays for everyone—and very soon the lectures were transferred into the men's own time. Sergeant-Majors considered the whole thing mere camouflage to get out of parades, and perhaps it was. But this is illustrative of the educational work that is being done.

From the discussion among the men we believe they desire absolute equality in demobilization of both officers and men. They believe that pensions should be equal according to disabilities and abolition of military titles for field officers who have resigned their commissions. We were equals as Canadian citizens before we enlisted, and we believe that all ranks have done their duty equally well, and that an officer is no more entitled to retain his military title than a private, a sapper or a gunner. Unless Canada is careful we will before long have families with an established "officer tradition." Cap-tipping would be the next development. We have even heard that it has already been suggested that school children touch their caps to soldiers. And we laughed at the Germans here daily for the same thing!

Among various articles on how we are to be reconstructed, reformed and made into ideally efficient citizens generally, there were a couple in a Canadian magazine which made the troops swear a great deal. One article suggested in cold print that we choose our school teachers from soldiers and officers, and have colonels and generals as school inspectors, to encourage efficiency, patriotism and discipline. And in another leading article, General Critchley outlines a comprehensive scheme of compulsory schools for technical training in citizenship—with a slight military flavor which some people imagine citizens should have. We who have been fighting the result of this sort of thing over here can easily see through such camouflaged Prussianism. About forty years of such schemes, coupled with the idea that Canadians when properly trained and equipped can lick their weight in anything—and Canada will be ready for just such a drabbing as Germany has got.

The soldiers over here are "fed up to the ears" with soldiering, and with Europe—and the sooner we are spectators instead of participants in the mess here the better for all.

ARTILLERYMAN.

More Thinking Wanted.

EDITOR "THE FARMER'S ADVOCATE":

It seems obvious to me that more thinking is needed, on the average farm and on every farm, in the dominion. There is nothing that cannot be improved. If a farm is in excellent order it might yield double, with a different crop than the one usually grown. Down in Kansas, a group of farmers got together and hired a professor to tell them how to farm, to the best advantage. The scheme worked perfectly. They found some land would not produce anything profitably except sweet clover, and as a result the professor urged the growing of it, in that drought-cursed place. The modern farmer has to be a little of everything; a scientist, a laborer, a prophet, a mechanic, a naturalist, a botanist, and a good business man with sharpness to resist all kinds of sharks, and wolves in sheeps' clothing. The average farmer cannot work and think too; either one, or the other must be neglected. To be sure the farmer thinks, but not to the same extent that the manufacturer does. The manufacturers, are sending, trade commissioners to every country in the world to find sale for Canadian goods. What about the farmers?

Prince Edward Co., Ont.

A. G. V.

The Spaulding Jersey Sale

On February 20, T. J. Spaulding disposed of his Jersey herd by auction at his farm near Aurora. The mature cows were a choice lot of individuals. Some of the best blood of the breed has in past years been used at the head of the herd. Following is a list of the animals selling for \$100 or over, together with the names and addresses of the purchasers:

Jolly Meadow Grass, Geo. Forrester, Gormley.	\$100
Maid of Glen Farm, Mr. Shaw, Sharon.	135
Donalda's 1st, Thos. Read, Victoria Square.	250
Pudge 11th, Thos. Read.	155
Donora, Fred. Bagg, Unionville.	250
Donalda's 3rd, Robt. Rank, Aurora.	135
Aurora Maid's 2nd, C. S. Gleadhill, Maple.	180
Lily of Aurora, Wm. Deavitt, Newmarket.	180
Aurora Maid 3rd, John Stickwood, Queensville.	205
Fairy Maid, D. Love, Highfield.	225
Pudgette, J. Oliver, Newmarket.	185
Maiden, B. Petch, Cheltenham.	200
Lilian of Glen Farm, C. Line, Sherwood.	180
Maid's Golden, C. Line.	135
Lila, Jos. Thompson & Son, Owen Sound.	100
Maid Elsie, S. A. Grose, Keswick.	100

Bacon Trade With Britain to be Resumed.

The embargo on Canadian bacon is apparently being lifted and the prospects are that trade will be resumed in a satisfactory manner. Last week the Acting Premier Sir Thomas White, said that the British Food Ministry will purchase a large amount of tonnage immediately and the British market will be free for commercial purchase and importation after March 1, and for commercial sale and distribution after April 1.

Toronto, Montreal, Buffalo, and Other Leading Markets

Week Ending February 27

Receipts and Market Tops

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

Table with 6 main sections: CATTLE, CALVES, HOGS, SHEEP, and their respective receipts and market tops for various locations like Toronto, Montreal, Winnipeg, Calgary, and Edmonton.

Market Comments

Toronto (Union Stock Yards).

An active demand prevailed throughout the week for all grades of cattle and an advance of about 50 cents per hundred was made on the Wednesday market. Trading closed on Thursday at the higher level. There was a strong inquiry for cattle from American buyers and in the neighborhood of fifteen hundred head are purchased for export. Local abattoirs are now buying more freely and hope to be shortly in a position to handle most of the receipts. Only a few loads of really well-finished cattle were offered for sale, most of the stock being of medium to common grading. No really good heavy cattle were on hand, but a few small lots of fair quality were offered and these sold from \$15.50 to \$16 per hundred. Steers between the weights of ten hundred and twelve hundred pounds sold up to \$15.50 per hundred, twenty head of eleven hundred and fifty pounds bringing that price. Other good sales of stock of good weights were made from \$14.50 to \$15.25. Of the butcher steers and heifers of handy-weights, one baby beef of eight hundred pounds sold at \$18.50 per hundred, while a choice lot of twenty-three head averaging nine hundred and ten pounds sold at \$15.25 per hundred. Eighteen steers averaging nine hundred and eighty pounds were weighed up at \$14.50, fifteen head averaging nine hundred and sixty pounds at \$13.25, while numerous other sales were made at prices ranging from \$13 to \$13.75. The best heifers offered realized from \$12.75 to \$13.50 per hundred. Cows and bulls continued in good demand and as high as \$12 per hundred was paid for a few odd choice cows, while a few bulls of quality were bought at prices from \$11 to \$11.25 per hundred. Canners and cutters advanced in price in sympathy with other grades, and moved from \$5.75 to \$6.50 per hundred. The local demand for stockers and feeders is rather limited, and most of this class of stock is at present going to the shambles; farmers now hesitate before buying stock cattle at the prices asked. The calf market gained considerable strength during the week, and an advance of \$1 per hundred was noted on choice veal. A few calves sold as high as \$19 per hundred and most of the good veal moved from \$16 to \$17.50 per hundred. Medium quality calves sold from \$13 to \$16 and common calves from \$9 to \$12.

The lamb and sheep market also gained strength. A few lots of choice lambs sold from \$17 to \$17.25 per hundred, while a few choice sheep were weighed up at \$11, and one or two head at \$12 per hundred.

The hog market was unchanged since the previous week, and fed and watered hogs sold throughout at \$18 per hundred, although \$17.25 to \$17.40 was being paid for f.o.b. hogs, which is really equal to \$18.25 to \$18.40 fed and watered. It is expected that our bacon will be moving freely overseas very shortly and the local packers will then be in a position to handle all the hogs available.

Of the disposition from the Yards for the week ending February 20, Canadian packing houses purchased 282 calves,

Table with columns: CLASSIFICATION, No., Avg. Price, Price Range, Top Price for TORONTO (Union Stock Yards).

Table with columns: No., Avg. Price, Price Range, Top Price for MONTREAL (Pt. St. Charles).

3,507 butcher cattle, 453 hogs and 803 lambs. Local butchers purchased 124 calves, 458 butcher cattle, 245 hogs and 394 lambs. Canadian shipments were made up of 14 calves, 119 stockers, 121 feeders and 65 hogs. Shipments to United States points consisted of 49 calves, 2,056 butcher cattle, 51 feeders and 293 lambs.

The total receipts from January 1 to February 20, inclusive were: 47,813 cattle, 4,084 calves, 53,404 hogs and 20,620 sheep; compared with 32,200 cattle, 3,666 calves, 58,609 hogs and 8,019 sheep, received during the corresponding period of 1918.

Montreal.

The amount of stock at present being received at the local yards is capable of filling only a small part of the needs of the city of Montreal. During the week's market trading was brisk and prices of some grades, especially of medium fat cows, seemed firmer than during the previous week. There were two small lots of good cattle noticeable in the offerings. Of these, one lot averaged twelve hundred pounds and sold for \$14.50 per hundred, while the other lot was made up of nine heifers and six steers averaging eight hundred and seventy-five pounds, sold for \$12.75. A straight load of steers

weighing around ten hundred and fifty pounds was weighed up from \$11.75 to \$12, while the majority of the light steers sold from \$10.50 to \$11. Fairly good cows went to the scales at prices from \$8.50 to \$9, canner cows at \$5 straight and any cows fit for the butcher trade, from \$6.75 up. One choice young bull sold for \$12.75, and a few good bulls of heavy weights at a range from \$10 to \$10.50. Canner bulls of five hundred pounds and up realized from \$6.75 to \$7.50. Fat heifers sold generally from \$10 to \$11 and at a top of \$12.75, while small yearling heifers of poor quality were weighed up with the canner bulls. Veal calves are becoming more plentiful and in some cases there were straight car lots of these. Many of those offered are however, very young and unfit for butchering. Prices in most cases ranged from \$12.50 to \$14.50.

Lambs sold from \$14 to \$15 per hundred and sheep from \$8 to \$11.

The market price for hogs ranged from \$18 to \$18.25 per hundred for selects, off cars. The market for hogs is evidently influenced to some extent by the large numbers now being shipped direct to packers. Sows remain at \$3 per hundred below the price for selects.

Pt. St. Charles. Of the disposition

from the Yards for the week ending February 20, Canadian packing houses and local butchers purchased 477 calves, 132 canners and cutters, 80 bulls, 374 butcher cattle, 1,382 hogs and 109 lambs. Canadian shipments were made up of 47 milch cows. There no shipments to United States points during the week.

The total receipts from January 1 to February 20, inclusive, were: 6,190 cattle, 2,136 calves, 8,967 hogs and 4,597 sheep; compared with 4,809 cattle, 1,777 calves, 8,900 hogs and 4,827 sheep received during the corresponding period of 1918.

EAST END.—Of the disposition from the yards for the week ending February 20, Canadian packing houses and local butchers purchased 204 calves, 669 butcher cattle, 603 hogs and 116 lambs. Canadian shipments were made up of 83 hogs. Shipments to United States points consisted of 211 butcher cattle and 103 lambs.

The total receipts from January 1 to February 20, inclusive were: 7,263 cattle, 1,327 calves, 5,051 hogs and 4,940 sheep; compared with 5,741 cattle, 1,536 calves, 6,466 hogs and 4,463 sheep, received during the corresponding period of 1918.

Markets

Department of Agriculture Live Markets Intelligence Division

Table with columns: Same Week, Ending, Price. Rows for various livestock prices.

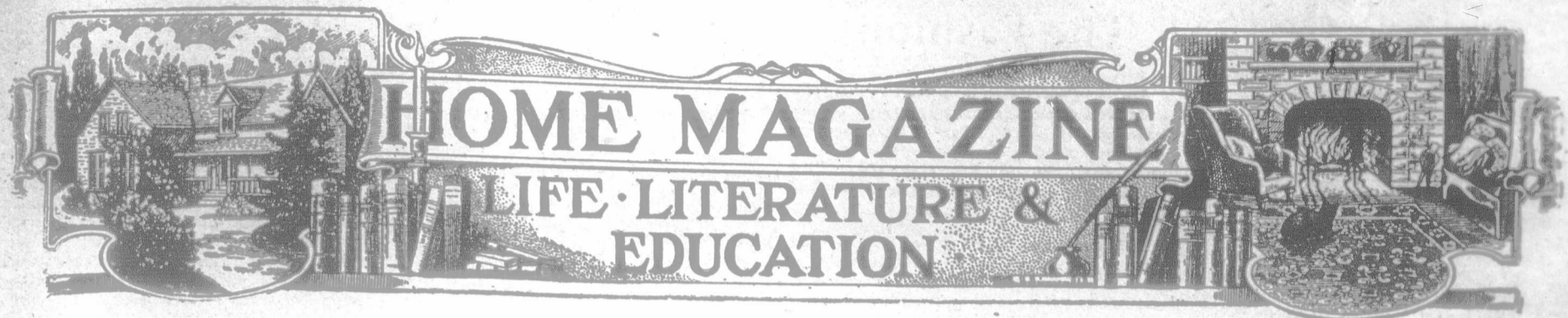
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Table with columns: Same Week, Ending, Price. Rows for various livestock prices.

for the week ending... 211 butcher cattle



The Return.

BY ISOBEL W. HUTCHISON.

They've brocht us back to London, where they celebrate peace a' day, An' to-morrow, they say, they'll send me hame.

Ay! Hame to Colonsay! I've neither mither, nor wife, nor bairn, but it's there that I was born, An' I've maist forgot what I've been through wi' thinkin' o' the morn!

There's plenty to see in London, but I'm slow to understand, I suddenly thocht the noo o' the waves comin' in on Kiloran sand Wi' never a pause—Man! It's wonderfu'! Crested wi' green an' gray, They'll have been comin' in an' in a' the time I've been away!

I'm standin' here in London streets—no' as ither folks behaves— They must h' thocht I was kind o' daft, for I stopt to hear the waves. I heard them through a' yon uproar fine, an' I'm no' ashamed to tell That they brocht the tears to my eyes at last an' washed me clear o' Hell.

There are ower many folk for me doon here, ower muckle fret an' rush, I just feel I'd like to sit awhile quiet-like wi' God in the hush O' Colonsay, where the waves come in an' whisper on the shore O' that Peace o' His that passes my understandin' more an' more.—In Westminster Gazette.

A Memorial Farm.

[In these days, when shipload after shipload of our brave soldiers is coming back over the Atlantic, and we are hearing so much about helping those who return and raising memorials to those who will never return, the following story, submitted in our Christmas Competition, may be read with especial interest. Perhaps its publication would have been more appropriate at Christmas time, but all gifts are not Christmas gifts nor are kind thoughts and actions confined to it.—Ed.]

The Shannon Memorial Farm.

BY MRS. W. N. GLENN, HENSALL, ONTARIO. A memorial farm. "Whoever heard of such a thing?" enquired Mrs. McQueen of her mother, as she deftly rearranged the silver and glass on their sideboard she was dusting. Grandma Shannon looked up from her flying knitting needles and said, "Well, because no one ever heard of it, is no reason why it should not prove to be a perfectly right, reasonable and helpful thing to do. There are memorial churches, halls, parks, hospitals, in fact, nearly everything; even money for jewelry and automobiles—may be given as memorials, but never yet have we heard of a farm. And I can't see why it should not prove at least,—and perhaps more—helpful and a greater blessing to humanity than many of the memorials I have mentioned. In the city cemeteries there are many, many thousands of dollars spent yearly in the erection of monuments. Even in the country cemeteries many thousands of dollars may be counted up, in some of them, invested in big, little, or medium quantities of granite, rock or substitute, many of them lacking in symmetry and possessing little or no beauty of any kind."

Just here, her little granddaughter, playing with her doll, looked up to say, "What are cemeteries and monuments for Grandma?" An amused smile was on Grandma's face as she turned to the serious little questioner. "The dictionary says", she explains, "that a cemetery is a public burying ground. But I would say

that it is a place where our bodies are laid to rest after life is gone and it is just the one place on earth where we are all on the same level. There are no reserved seats and no special entrances. And when our friends and acquaintances visit this place, there is usually a review of what we have done. And whether we have done much or little, ill or good, a monument or stone is put up by us, or for us, by others. An attempt is often made to erect one, in proportion to the love and respect born us; or in proportion to our usefulness or the size of our pocket book. Or they may be built entirely out of proportion of all these things. In many instances they are almost useless and of no benefit to either the living or the dead.

"Well, Grandma who started first putting up stones when people died?" "Now you have me cornered," said Grandma. "I have heard that long, long years ago when wild animals were plentiful, that the graves were loaded with stones to prevent the bodies from being unearthed and devoured. Another reason might be, that before the day of cemeteries people had to bury their dead wherever they thought most suitable and these stones helped to locate the graves. It seems to me, that our present day monuments are a continuation of the ancient stone piles, which were really useful and necessary at that time."

"Now run away Margy," said the mother to her little girl. "Grandma and I want to talk." Grandma turned to her daughter with misty eyes. "You remember dear," she said, "that when your father knew his earthly life was nearly over and he was making known his last wishes, some mention was made of a monument when the lawyer was drawing up his will. 'Don't mention the foolish, ugly things,

and colossal achievements we should not quail before possible difficulties. And who will say that money is better invested in a lifeless stone than in a productive farm with its life-giving and life-sustaining crops? When an anguished world weeps over millions slain and views with sorrowing eyes the wholesale destruction of entire countries, the piteous cry of starving people is for food, food, food! Even in our own country, we are advised by those who are in a position to know—to practice economy, eliminate waste and inefficiency, and above all things produce more food."

A family council was held by the Shannon family and it was decided that Grandma's plan was to be carried out with as little delay as possible. A 15-acre farm was found to be for sale for \$1,200. It had been the home of a retired farmer who kept only a horse and cow and a few hens. The principal crop was hay. After his death his wife went to live with a daughter. The place had been unoccupied for some time. Grandma decided that this little property could be made suitable for the memorial farm by expending some money in improvements. And so it was purchased.

The next morning found her busy with her pencil and paper, laying out the farm. She allowed one acre to be divided into a lane, from the buildings to the road, a barnyard and a garden, also a space for small fruits. Peach pear, cherry, plum and apple trees were to be planted around the garden and lane fences, and would provide shade as well as fruit. This left 14 acres for crop; 4 acres of this was to be sown with Alfalfa; the remaining 10 acres to be divided into three fields, with the usual three-year-rotation crop, pasture or hay first year; corn and roots second year; grain and seeding down the third year. "Or if a silo is built as it likely will be next year," she reflected, "less grain will be grown and more corn. This land should grow all or nearly all the roughage required by eight or nine dairy cows, one brood sow and a light team of horses that we are going to supply. When alfalfa and corn is grown very little grain is required, particularly if the young pigs are sold early. The hay field in the three-year-rotation crop, will have moveable fences and be used for exercise and pasture while it lasts, supplemented by feed in the stables. We know the astonishing amount of corn and roots that is often grown in the backyards of villages just because the land is well fertilized and cultivated. Our land is in good condition now, and when the manure from all that stock is drawn out daily and spread or piled on the land, according as circumstances will allow, it won't be long until there are bumper crops. And if our farmer is the right kind of a man—industrious, experienced and ambitious—I am sure he will make not only a good living but will save sufficient in, from three to five years, to start on a small place of his own. It is the dream of the hope of many men without means, to own their own land and make their living on it and enjoy an independence, that is unknown when in the service of others. We'll help some men to realize their hope for freedom and independence."



Delegates of the Women's Institutes of Ontario to the Dominion Convention at Winnipeg at the End of February. Mrs. William Todd, Orillia (right), and Mrs. J. Patterson, Gadshill. Mrs. Arthur Murphy (Janey Canuck), Edmonton, was president of the convention.

"Do you think we'll be able to get the buildings fixed up in time to have the farm in operation before Christmas," enquired Mrs. McQueen. "The sand and the gravel for the foundation of the barn will soon have to be drawn. There is a lot of fall work to do yet, and little help to be got."

"Don't worry about that my dear," replied her mother. "I feel sure, we'll have our farmer and his family comfortably settled before Christmas." And they did. They succeeded in hiring a little extra help, and when the neighbors heard of the purpose of their purchase, they freely offered their assistance which

was gladly accepted, and the dairy barn was ready for the stock in good time.

A carefully drawn up lease was next prepared for signature which required the tenant to faithfully follow any or all instructions given by the board of directors who would meet once a month on the farm or oftener if necessary. The tenant received free use of the farm, stock and implements by paying 4% interest on the money invested, keeping up the initial valuation of stock, feed and implements, valuation to be made at the close of each year, and paying taxes and doing road work. The interest amounted to \$100 per year, and this was to be set aside for the upkeep or further improvements on the buildings.

Grandma would have liked to give the use of the farm free of all charge. But the directors decided that the sum of \$100 per year was not much more than rent for the house and garden, with fruit, and that when the man had the proceeds of eight or nine good cows, which should give him a yearly income of from \$1,200 to \$1,400,—whether he sold the milk in the village or sold the cream raised calves—and then had the sales money from the pigs to pay expenses, such as extra feed, seed, taxes, etc., there was no reason why he should not save a considerable sum of money each year and at the same time be taught to give proper care to the property entrusted to him.

Grandma's only remaining son and her son-in-law were teaming in the feed required for the cattle, when one remarked to the other, that he wondered what Grandma would have done if that little place had not been for sale. "You need not wonder" answered his companion, "She would just have purchased a 50-acre or 100-acre farm, taken what she wanted off of it and sold the remainder, for memorial farms if possible. I heard her say last night that even two or three acres could be made produce as much money, as our memorial farm by keeping bees, growing onions, strawberries or poultry."

The last load of feed was stored in the barn. The dairy cows were purchased and delivered and stood ready for the inspection of the would-be-tenants, and many, many applicants there were. Finally the directors' choice fell on a returned soldier who had been slightly gassed and badly shell-shocked. Their choice was unanimously approved of by the whole country side. The man was well known and highly respected, having come to that neighborhood when a young boy from Doctor Barnardo's "Home." And during the intervening years between that time and his enlistment had grown from a timid but willing little helper into an energetic and valuable farm worker. His Canadian wife and son, aged ten, will prove able assistants and that he'll "make good" is the belief of all who know him.

A few days before they moved into their new home, Mary Dale—the promised wife of the missing son, Jack—called on Grandma and asked that she might have the privilege of repairing and painting a part of the house which needed it. "Jack would like it I am sure," said Mary.

"So would we all" replied Grandma. Mary had two or three willing helpers and the rooms were soon in perfect order. Next came a donation of fruits and vegetables from neighbors and while Grandma was furnishing the bare pantry shelves Mary Dale drove up again and brought in an armful of curtains and rugs. "I'll never need them, now that Jack is gone," she whispered to Grandma. Silently they wiped away their tears and continued in their good work. At last everything was in order and the tenant and his young family comfortably settled.

The Shannon family decided to hold a memorial service in the memorial farm house on Christmas Eve. They invited the helpful neighbors and a few friends. When they all arrived on that evening, a telephone message came, saying that their aged minister who was to have taken charge of the service could not be present owing to illness. It was decided to postpone the service until he would be able to officiate, when sleigh bells were heard and a knock was heard at the door. When it was opened a tall khaki-clad man strode in. "A Christmas present for Mary Dale and the Shannon family," announced the missing Jack.

We can slip away, unnoticed now, in the joyous welcome given Jack by his friends.

The Fashions.

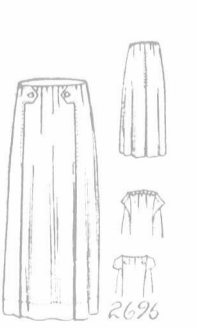
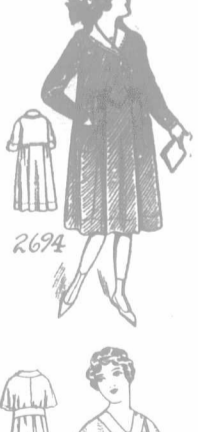
Note.—We cannot possibly supply patterns of designs clipped from other papers. If you order a number of patterns and one or two arrive before the rest, do not be alarmed. The division is sometimes made unavoidably.

When sending your orders for patterns to us, please cut out the picture of the pattern you want and enclose it. Also cut out the following blank, fill it in carefully and address to "Pattern Department, Farmer's Advocate and Home Magazine," London, Ont.

Name.....
 Post-Office.....
 County.....
 Province.....
 Bust measure (if for waist or one-piece dress).....
 Waist measure (if for skirt).....
 Age (if for child).....
 Number of pattern.....
 Date of issue in which pattern appeared.....

Allow a week or ten days in which to receive pattern.

2686. Ladies' House Dress.
 Cut in 7 sizes: 34, 36, 38, 40, 42, 44, and 46 inches bust measure. Size 38 requires 6 yards of 36-inch material. Width at lower edge is 2½ yards, with plaits drawn out. Price 10 cents.



2682. Girls' Dress.
 Cut in 4 sizes: 8, 10, 12, and 14 years. Size 10 will require 4 yards of 36-inch material. Price 10 cents.

2699-2698—Ladies' Costume.
 Waist 2699 Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Skirt 2698 Cut in 7 sizes: 22, 24, 26, 28, 30, 32, and 34 inches waist measure. To make the dress of one material will require 5½ yards of 40 inches wide, for a medium size. Width of skirt at lower edge is 2 yards with plaits drawn out. TWO separate patterns 10 cents FOR EACH pattern.

2676. Ladies' Waist.
 Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 2¾ yards of 36-inch material. Price 10 cents.

2339. Ladies' Dress.
 Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 7¼ yards of 36-inch material. The skirt measures about 3 yards at the foot, with plaits drawn out. Price 10 cents.

2567. Girls' Dress.
 Cut in 4 sizes: 10, 12 14 and 16 years. Size 12 will require 3 yards of 36-inch material for the foundation. The overblouse will require 2¼ yards. Price, 10 cents.

2702. Ladies' Coat.
 Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 4¾ yards of 54-inch material. Price 10 cents.

2696. Ladies' Maternity Skirt
 Cut in 7 sizes: 22, 24, 26, 28, 30, 32, and 34 inches waist measure. Size 24 requires 4 yards of 44-inch material. Width of skirt is about 2½ yards at the foot, with plaits drawn out. Price 10 cents.

2680. Ladies' Dress.
 Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 7 yards of one material, 40 inches wide. To make sleeves and overblouse of contrasting material as illustrated will require 3¾ yards of material 27 inches wide for the 38-inch size. The dress measures about 2 yards at the lower edge. Price 10 cents.

2700. Child's Set of Short Clothes.
 Cut in 5 sizes: 6 months, 1 year, 2, 3 and 4 years. It will require for the Dress, 2¾ yards of 36-inch material. For the drawers ¾ yard. For the Slip, 1½ yards, for a 2 year size. Price 10 cents.

2694. Girls' Dress.
 Cut in 4 sizes: 6, 8, 10, and 12 years. Size 10 will require 3½ yards of 40-inch material. Price 10 cents.

2697. Ladies' Apron.
 Cut in 4 sizes: Small, 32-34; Medium, 36-38; Large, 40-42; and Extra Large, 44-46 inches bust measure. Size Medium will require 4¾ yards of 36-inch material. Price 10 cents.

2677. Misses Dress.
 Cut in 3 sizes: 16, 18 and 20 years. Width of skirt at lower edge is 1¾ yards. Size 16 will require 3¾ yards of 54-inch material. Price 10 cents.

2678. Child's Rompers.
 Cut in 4 sizes: 2, 4, 6 and 8 years. Size 4 will require 2¾ yards of 36-inch material. Price 10 cents.

2706. Girls' Dress.
 Cut in 3 sizes: 12, 14 and 16 years. Size 14 will require 4¾ yards of 36-inch material. Price 10 cents.

2675. Ladies' House Dress.
 Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 6½ yards of 36-inch material. Width at lower edge is about 2¾ yards. Price 10 cents.

Hope's Quiet Hour.

A Secret Sanctuary.

Thus saith the Lord God: Whereas I have removed them far off among the nations, and whereas I have scattered them among the countries, yet will I be to them a sanctuary for a little while in the countries where they are come.—Ezek. XI: 16 (R. V.).

"Come ye yourselves apart and rest awhile,
 Weary, I know it, of the press and throng;
 Wipe from your brow the sweat and dust of toil,
 And in My quiet strength again be strong.
 Come ye aside from all the world holdp dear,
 For converse which the world has never known,
 Alone with Me and with My Father here,
 With Me and with My Father not alone."

While the Israelites were journeying to the Promised Land they had a Tabernacle which journeyed with them. It was an outward visible sign of God's Presence in their midst. While they marched it was carried in the midst of the host, and when they remained in one place—for a long stay or for a short one—the Tabernacle was set up in the very centre of the camp. There was a sad time—after the people had rejected God and worshipped the golden calf—when God said: "I will not go up in the midst of thee." No wonder the people mourned, and put off their ornaments, when the Place of Meeting was pitched afar off from the Camp. But, even then, those who sought the Lord went out unto the Tabernacle which was without the Camp.

When the Promised Land had become Israel's possession the Tent of Meeting was changed into a Temple of glory of

Ladies' Maternity Skirt
7 sizes: 22, 24, 26, 28, 30,
32, 34 inches waist measure. Size
requires 4 yards of 44-inch material.
of skirt is about 2½ yards at
with plaits drawn out. Price

Ladies' Dress.
7 sizes: 34, 36, 38, 40, 42, 44 and
46 inches bust measure. Size 38 requires
one material, 40 inches wide,
sleeves and overblouse of con-
material as illustrated will
¾ yards of material 27 inches
the 38-inch size. The dress
about 2 yards at the lower edge.
cents.

Child's Set of Short Clothes.
5 sizes: 6 months, 1 year, 2,
3, 4, 5 years. It will require for the
¾ yards of 36-inch material,
drawers ¾ yard. For the Slip,
¾ yard, for a 2 year size. Price 10

Girls' Dress.
4 sizes: 6, 8, 10, and 12 years.
will require 3¾ yards of 40-inch
Price 10 cents.

Ladies' Apron.
4 sizes: Small, 32-34; Medium,
36-38; Large, 40-42; and Extra Large,
44-46 inches bust measure. Size Medium
requires 4¾ yards of 36-inch material.
Price 10 cents.

Misses Dress.
3 sizes: 16, 18 and 20 years.
skirt at lower edge is 1¾ yards.
will require 3¾ yards of 54-inch
Price 10 cents.

Child's Rompers.
4 sizes: 2, 4, 6 and 8 years.
will require 2¾ yards of 36-inch
Price 10 cents.

Girls' Dress.
3 sizes: 12, 14 and 16 years.
will require 4¾ yards of 36-inch
Price 10 cents.

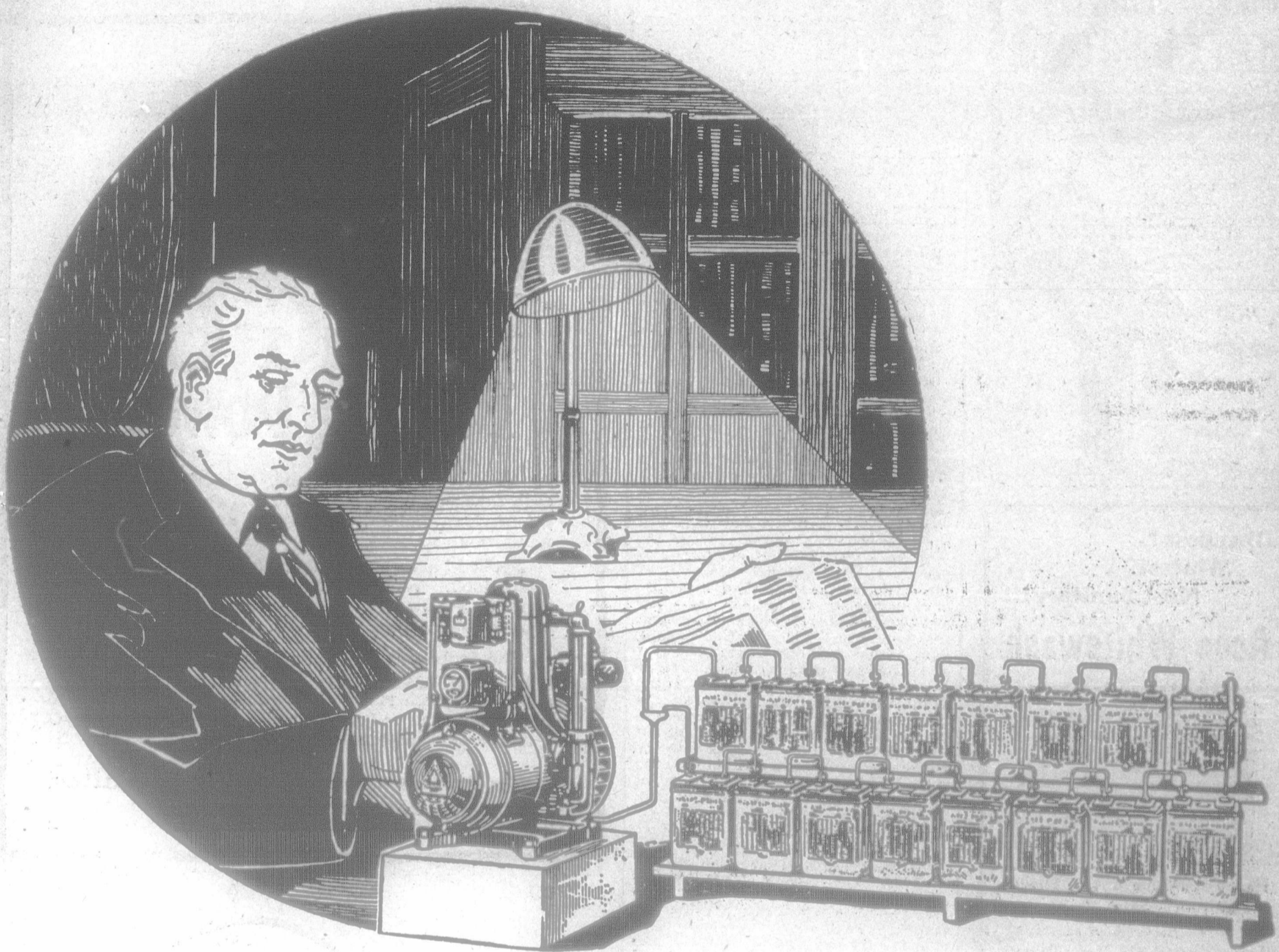
Ladies' House Dress.
7 sizes: 34, 36, 38, 40, 42, 44 and
46 inches bust measure. Size 38 requires
4 yards of 36-inch material. Width
at lower edge is about 2¾ yards. Price

Hope's Quiet Hour.

Secret Sanctuary.
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16 (R. V.).

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Promised Land had become
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Jerusalem. God was still in the midst of His people.

When St. John saw a vision of the New Jerusalem, the Holy City of God, there was no visible temple there, "for the Lord God Almighty and the Lamb are the temple of it."

Whether we journey through the wilderness toward our Promised Land, or pass through the gate into the City, there is only one Temple, one Meeting Place, one Sanctuary. The Lord God still says to His scattered children: "Yet will I be to them a Sanctuary."

If, by our wilful rejection of Him, we force Him to stay outside the door of our heart, still He remains within reach, so that when we seek Him in humble penitence we can find the Place of Meeting.

At Christmas time a friend sent me a little leaflet on which was printed a message which may be helpful to you, so I will pass it on. It is called: "A Shrine in the Heart," and it is written by W. T. Carey.

He says: "Amid any circumstances whatever, deep down in your heart you utter the word 'Father,' and instantly you know that the Father is there and is listening, and amid all the ceaseless activity of His creative work pauses to listen to His child. So you keep, as it were, a little shrine in your heart where God condescends to abide always, and you can lift the curtain and go in just whenever you like; quite sure to find Him Who loves you, Who belongs to you as you do to Him. People wonder what there is in religion; they think it consists of church-goings and sermons and tracts and controversies; they little suspect that there are many who, by God's grace, carry within their own hearts the source of all joy and peace and love. Happy the man who has found this secret. While the world frets and worries, he thanks God that, by the easiest process in the world—the simple lifting of the spiritual curtain—he can enter into the House of Rest he carries within him, and there is at home. He can pray there, or he can rest there—he can please himself, for there is no etiquette here; he who knows God knows freedom."

As there is no barrier of space which can shut God out, so there is no barrier of time. The promise made through Ezekiel thousands of years ago is as true to-day as it was then. Those who are removed far off from the home churches discover that God will keep His pledge and will be to them a sanctuary in the countries where they have come.

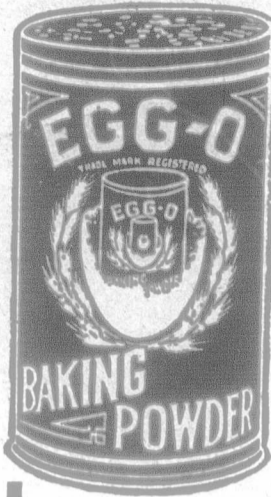
Two days ago I was visiting a poor old woman, and she showed me a letter she had received from a nephew (a grand-nephew). It was dated "Whitsunday, May 19, 1918"—and the writer was a prisoner in Germany. I copied part of the letter, as it was well worth passing on. The young man wrote: "I have a great deal to thank God for, He brought me through a terrible ordeal without a scratch. I felt His presence with me, and oh how I treasure that promise of His 'Fear not, for I am with thee unto the end. It is a splendid promise, is it not? I have just put myself in the place of a bird in a cage waiting for the good hand (of God) to release it, and once again give it the blessing of Freedom (and Peace) which, thanks be to God, has to come sooner or later, but I earnestly pray that it may be soon."

I read that hopeful message to a friend of mine to-day. He said: "Well, I was talking to a man who had been a prisoner of war, and he could not speak of it without the most terrible curses."

Probably the difference was not so much in the circumstances as in the character of the man. The one man carried his secret sanctuary always in his heart; and there he knelt at the feet of Christ and caught His spirit. He began to pity those who treated him badly—pityed them because their souls were diseased. As Isaiah describes soul-sickness: "From the sole of the foot even unto the head there is no soundness in it; but wounds, and bruises, and putrifying sores."

Yesterday I was talking to one of God's loyal servants, who expects soon to pass into the life beyond death. She said to me: "I know He will be with me. I am asking Him to let me die easily. What could I do without Him?"

Her voice was faint and she panted wearily as she sat, propped high to relieve the strain in the heart, but her face was happy and full of peace. "What could I do without Him?" I have heard words



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GOVERNMENT surveys have disclosed the fact that the use of agricultural limestone is necessary in many districts throughout Canada.

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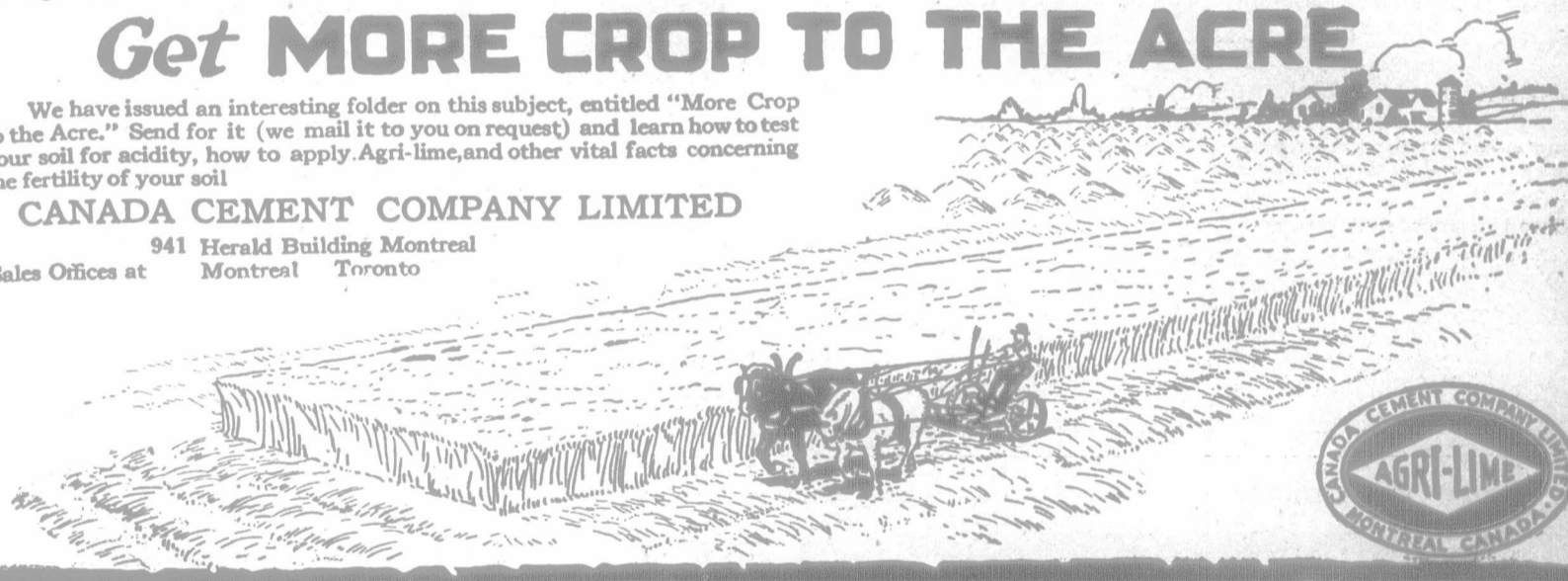
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it will be time well-spent.

W ST. MARYS, Ont.

like that from so many, and thousands of hearts echo the words. You, who read this, have found the peace of His Presence; or else you have not found real peace at all. Real peace will stay with you "when other helpers fail, and comforts flee."

Do you remember the story of the shipwreck told in Acts XXVII? When hardy soldiers and experienced seamen were terrified by the violence of the storm, it was the tent-maker (the apostle St. Paul) who inspired them with courage. He was serene and cheerful, knowing that his Master was Lord of the sea and of death. His was not the heedlessness which many soldiers have shown in the face of death. A returned soldier told me the other day that when bullets and bombs were flying about they got used to it and did not care. I said to him: "Surely you thought sometimes about the other life beyond death!" and he answered unconcernedly: "No, I can't say we ever thought of it." If those words were really true—which I doubted—then he must be a strange person. To be close up to the curtain which we call "death," and not be in the least interested about what would come next, seems to me scarcely human.

Possibly he preferred to keep his thoughts to himself—but even the most reserved person can unveil his soul before God, Who understands and cares.

I wish you could have seen the bright look of my friend in the hospital yesterday as I repeated Tennyson's beautiful words:

"I hope to see my Pilot face to face
When I have crost the bar."

Perhaps she has seen Him now, has heard the "one clear call" for which she has long been eagerly listening.

"Trust through the dark brings triumph
in the dawn."

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The Q. H. P. is very full, owing to the great kindness of our readers, though money goes out of it nearly every day. The Clachan Women's Institute sent \$16.50; A. C. H. (Palmerston, Ont.,) sent \$10.00, and this morning I received \$2.00 from Mrs. D.—"In Memory of Anna." Some of this money has gone out in the shape of boots for children, milk tickets for the benefit of a poor little baby—it is 6 months old and only weighs 9 pounds) and comforts for a little fellow with tuberculosis. I do my best to spend faithfully the money entrusted to me, but sometimes I feel almost overwhelmed when large sums are poured into the Q. H. P. As for the messages of gratitude sent to you!—well, you will have to take them for granted, for I can't possibly make out a detailed list. If I did, our kind readers would probably redouble their efforts and the go-between would be swamped. Thank you!

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S. S. Alexander, New Liskeard, Ont., \$3.50; Edward Tye, Dallas, Ore., \$2.50; Mrs. Jos. Colling, R. 1, Ripley, Ont., \$2.; "Toronto," \$2; M. C. F., \$2; "A Friend," \$2.00

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Total to Feb. 21.....\$5845.50

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2. All other individuals who during calendar year 1918 received or earned \$2,000 or more.
3. Every corporation and joint stock company whose profits exceeded \$3,000, during the fiscal year ended in 1918.

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FORM T2. By corporations and joint stock companies.
FORM T3. By trustees, executors, administrators of estates and assignees.
FORM T4. By employers to make return of the names of all directors, officials, agents or other employees to whom was paid \$1,000 or more in salaries, bonuses, commission or other remuneration during the calendar year 1918.
FORM T5. By corporations, joint stock companies, associations and syndicates to make return of all dividends and bonuses paid to shareholders and members during 1918. Individuals comprising partnerships must file returns in their individual capacity.

GENERAL INFORMATION

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 Returns should be filed immediately.
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CHAPTER XIV.

September 10th, 1837.

THIS afternoon I have spent with Red Jock. I went first to the tavern to see Barry, but she was nowhere to be found, but only a red-faced buxom damsel whom Mister Deveril has brought from Buffalo, to help in the house, and who, by my faith, seems mightily at home. Barry had been gone all day, she said; she didn't pretend to keep track of her, —supposed she was off somewhere in the woods as usual.

And so I went on to the blacksmith shop, half hoping my girl might be there, for she dearly loves to drop in for a chat with Red Jock, especially of a Sunday, when he is not busy and has time to talk.

But Jock was sitting alone under the tree in the yard, very clean and well-shaven, laboriously reading a newspaper, his lips moving to such good effect that before I reached him I could hear stentorian whispers. So absorbed was he that he was dead to everything else, and I was close beside him before he was aware of me.

"Hoots, mon!" he exclaimed, with evident pleasure. "Hoo are ye the day? Ah'm richt glad tae see ye. Sit doon an' hae a bit crack."

So I threw my hat on the ground and stretched myself beside it, and we "cracked" about the weather, and the harvest, and all the doings of the neighborhood and the highway.

But when I would have arisen to go home Jock would not hear of it. "Indeed an' ye'll no," he said. "Ye'll juist bide an' hae a bit supper wi' me, an' it's unco' welcome ye'll be. The Sabbath's a wearisome day—wi' all respect' tae it, ye ken. When a mon's at his wark the time gaes by like a burn, ripplin' an' laffin'—or mebbe a bit gray an' glowerin' gin he happens tae be oot o' humour. But it's on the rest days that it juist lags like the snaw in a late springtime, an' it's then he maist needs wife an' bairns tae keep him believin' life's worth livin'. Ah'm thinkin', though, 'at wark's the best thing in life, mairret or single, an' no the curse it's been branded. If it wisna for 't we'd be a' eatin' ane anither up like the beasties i' the jungle, Ah doot."

"How is it you never married, Jock?" I asked. "A fine man like you shouldn't have to be missing the wife and bairns." He rubbed his chin for a minute, thoughtfully.

"Weel," he said, turning to me, with the twinkle in his eye that I had expected, "I juist escaped it."

"Just escaped it?"

"Aye.—By the skin o' ma teeth," he added, chortling with the remembrance.

"Can you tell me about it, Jock?" I asked, feeling my way cautiously, for though Jock has a great "gift o' the gab" he can be as dour and reserved as an Indian if the notion takes him. But this time he was expansive.

"Oh aye," he replied, quite cheerfully. "Ye see the way o't wis this: She wis a gey fine lassie, wi' curls an' dimples, an' a glint to her ee fit to send a lad daft,—an' a way o' turnin' her shouther, an' settin' oot her bit foot, fer a' the warl' like Tam Johnson's filly.—Ye ken what a pretty bit o' horseflesh is that, Alan?"

I nodded, and he went on with enthusiasm, "Oh, aye. That'll be a bonnie leddy, ane o' these days! Slim an' prood, wi' her heid up, an' fetlocks as trim as yer wrist! Steppin' an' prancin' aboot! It'll be a fearsome time Ah'll hev' wi' her when it comes to the shoein', Ah doot. Tam Johnson told me—"

"But you're getting away from the story Jock," I interrupted, and that brought him back.

"Hoots, mon, ye're unco' anxious to hear o' the lassies!" he laughed. — "Weel, as Ah wis sayin' she wis enuch to send ony lad aff, an' I wis daffie enuch an' no mistake, but juist aboot that time my sister gaed awa'—wha wis keepin' the hoose, ye ken—an' the lassie's mither gied me an invitation to bide wi' the family till she cam' back. . . Weel, it didna tak me a day tae mak up my

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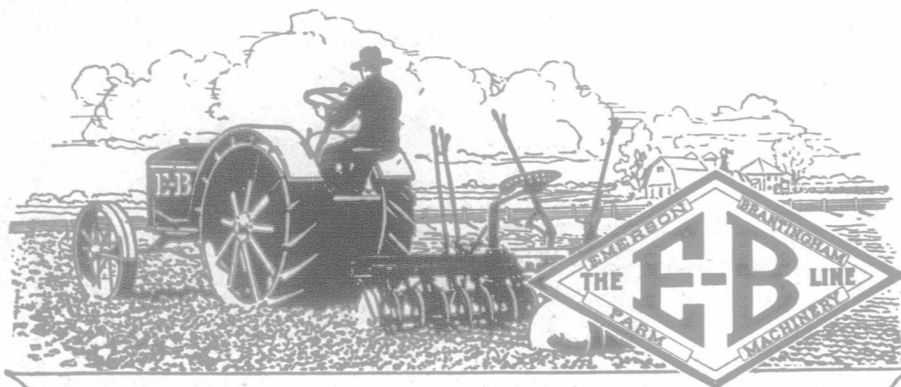
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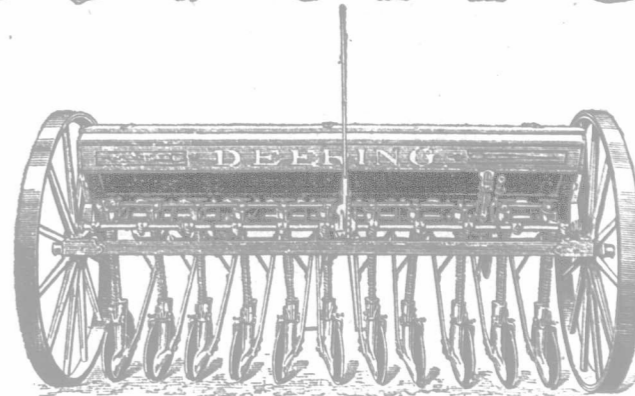
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min' about that, so ower Ah gaed wi' my bit travellin' bag an' my plaidie, an' fer a week or mair all gaed fine as a fiddle. But Alan, afore lang Ah began tae get a glint that there's mair tae luik tae in a wumman than a dimple, or a toss o' the heid, though Ah'm no sae sure, Alan, that ye ever ken a' there's tae be borne wi' i' the buddies tell ye live i' the hoose wi' them. . . Afore the second week wis weel afoot, it cam' tae me like a flash ae day, that conversation 's a braw thing to conseeder.—Wi' Kirsty the clack frae morn till nicht wis: 'Oo! There's Mary MacDonal' gangin' doon the road! Noo, what d' ye say 's taen her oot this time o' day? Ah'll be thinkin' she'll be ower to Ellen Cameron's to sew. She's wearin' a new cape an' a red petticoat.—Oo! D'ye see Mary Forsythe an' Jim's Jimmie doon ayont the river? They'll be fer the glen. Ah wunner if they'll be mairrit this June? Unco' fine she is wi' her new bunnit. It's purple, wi' pink roses on 't. . . An' when she wisna keekin' oot o' the window she wis aye makin' bits o' lace an' sic fule things, an' tellin' ye hoo many steeks it tuik here, an' hoo many ye had to miss there, an' the Lord kens what an' all. . . Afore the second week wis weel afoot, it cam to me wi' a flash, as I remarked afore. There wis an auld aunt that lived i' the hoose. 'Deil tak it,' Ah said to mysel', 'it 's no Kirsty I'm fain to hear talkin' but the auld aunt.'—Ah'm thinkin' it's aften juist that, Alan. A callant thinks it's the lassie he's taen wi' when it's naught but a dimple or a ringlet—wi' a' the family fer a background as ye may say.—Sae that brocht an end on 't. Ah thoct o' a' the years an' years listenin' to thae clashin' about this ane's kirtle an' that ane's bunnit, an' whether wee Andy wis to mairry big Meg, an' about the wee bit steeks. 'Ah'll no worry thro' it,' Ah said to mysel'. 'Ah'd be clean daft wi' a year o't. An' it didna' tak' me lang to kick ower the traces aifter that. Ah escapit, Alan, but if it hadna been for the bit stay i' the hoose wi' her Ah doot Ah'd taen the step.—The Lord be thankit fer His mercies."

"But what about the poor girl, Jock?" I asked. "Didn't she feel badly?"

Jock had no regrets.

"Hoots, mon," he said, "thae bit assies wi' the glint i' their een an' the

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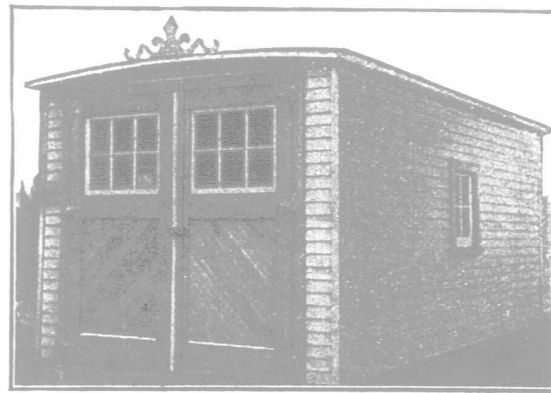
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bit tricks wi' the shouthers an' ankles is no worrit lang. There's aye gude feeshin' they aye haud. An' moreover, Alan, Ah wis a real airtist, as ye may say. Ah didna up an' tell the lassie what Ah wis aifter, an' set her greetin' an' clackin' about it. Ah juist brocht anither laddie an' left him wi' her, gently an' naterally ye ken, an' afore two wriggles o' a lamb's tail she wis juist as much taen up wi' him. That gied me the bit atween my teeth, an' sae it wis a' ended 'in sweet accord,' as the Methody hymn pits it."

"You were an 'artist', surely enough,

Jock," I said, laughingly, "but it's not so very pleasant to live alone as you do. Besides, Jock, a man like you, with a good trade, ought to leave a family in a new country like this."

Jock did not reply for a moment, but sat looking off into the deep shadows of the woods beyond the road, where the maple trees were already showing an odd blaze of scarlet and the beeches a shimmer of pale gold.

"Ah've no spoken o't afore, Alan," he said presently, "tae ony leevin' soul. But Ah've no neglekit ma dooty a'thegither. There wis two weans i' the Old Country, wha wis left wi'oot a frien' in a' the warl'. Ah promised their faither Ah'd tak' care o' them. They're in Toronto wi' a gude wumman wha keeps them as clean an' bonnie as daisies, an' sends them tae the schule. She's fain eneuch tae get the bit money fer their keep, purr body, an' she maks a gude home fer the weans."

Again he paused an looked into the woods, then he resumed.

"Ah dinna min' tellin' ye, Alan, that Ah'd mairry her the morrow gin she'd tak me. She's a winsome lass, an' no fashin' hersel' ower bit steeks an' ither fowk's business. But her hert's sore yet ower him that's gaed aw'. Ah doot if aye she'll luik at big Red Jock."

"Are you very fond of her, Jock?" I asked.

"Noo ye've said it," he replied. "Alan she's tae me what Barry is tae you, gin Ah ken the signs.—Aye Alan, but she's the dainty lass! The wee han's o' her, like the hawthorn buds i' the spring! An' the saft voice of her, like the win's soughin' up there i' the pine trees! An the big gray een luikin' up like stars frae her widow's bunnit!—Ah doot, Alan, she's ower fine fer me."

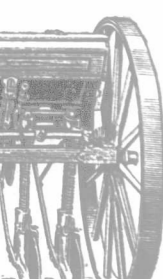
So it was that I learned that even Red Jock cherishes his romance.

"What is her name?" I asked, and he said "Elizabeth."

Then the talk drifted off to other things.

To be continued.

The Dardanelles, by action of the War Trade Board under instructions from the Supreme Economic Council in Paris, were thrown open to America trade interests on Feb. 15.



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Every maker of Maple Goods in Eastern Canada should be interested in this remarkable contest. It will help all makers of Sugars and Syrup in the Grimm Champion Evaporator to have an expert opinion of their goods, whether they win a prize or not. The

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is built with one idea—the best syrup and Sugar at the least cost. Start with good, clean sap and the Grimm Champion does the rest. Put a champion in your grove as early as possible. We can give you the right size at the right price.

The Grimm Manufacturing Co. LIMITED
40 Wellington Street
MONTREAL - QUE.



Grimm Champion Outfit

BE YOUR OWN BLACKSMITH
FARMERS! SAVE REPAIR BILLS & VALUABLE TIME. ONE OF OUR BLACKSMITHING OUTFITS WILL PAY FOR ITSELF. CATALOG FREE.
THE HALLIDAY COMPANY, LTD. HAMILTON
FACTORY DISTRIBUTORS CANADA

Current Events

D. D. Mackenzie, former Nova Scotian Judge, is Floor leader during the present Parliamentary Session at Ottawa.

J. W. Widdifield, United Farmers of Ontario Candidate in the Northern Ontario Provincial by-election, was elected by 418 majority over Major Harry Cameron, Government candidate.

Mr. Edward W. Beatty, K. C., President of the C. P. R., was formally nominated as Chancellor of Queen's University.

Perth, Middlesex, Dufferin and Victoria have sent a petition to Parliament against "daylight saving."

Markets

Continued from page 416.

Toronto Produce.

Receipts of live stock at the Union Stock Yards, West Toronto, on Monday, March 3, consisted of 211 cars, 4,108 cattle, 364 calves, 1,785 hogs, 566 sheep and lambs. Strong, active market. Prices 25 cents to 50 cents higher than high tide last week. Top for loads, \$16.25 per hundred for 16 steers, average weight 1,175 pounds each. Best cows, \$11 to \$12 per hundred. Bulls, \$8 to \$12. Milkers and springers steady; choice calves, steady; others slow and 50 cents lower. Sheep and lambs steady. Hogs, \$18.25 to \$18.50 fed and watered.

Breadstuffs.

Wheat—Ontario (f.o.b. shipping points, according to freights)—No. 1 winter, per car lot, \$2.14 to \$2.22; No. 2, winter, per car lot, \$2.11 to \$2.19; No. 3, winter per car lot, \$2.07 to \$2.15; No. 1 spring, per car lot, \$2.09 to \$2.17; No. 2 spring, per car lot, \$2.06 to \$2.14; No. 3 spring, per car lot, \$2.02 to \$2.10. Manitoba (in store, Fort William,) No. 1 northern, \$2.24½; No. 2 northern, \$2.21½; No. 3 northern, \$2.17½; No. 4 wheat, \$2.11½.

Oats—Ontario (according to freights outside)—No. 2 white, 58c. to 61c.; No. 3 white, 57c. to 60c. Manitoba (in store, Fort William)—No. 2 C.W., 72½c.; No. 3 C.W., 63½c.; extra No. 1 feed, 65½c.; No. 1 feed, 61½c.; No. 2 feed, 58½c.

Corn—American, (track, Toronto, Jan. shipment), No. 3 yellow, \$1.50; No. 4 yellow, \$1.47.

Peas (according to freights outside)—No. 2, \$1.80, nominal.

Barley (according to freights, outside)—Malting, 78c. to 83c., nominal.

Buckwheat (according to freights outside)—No. 2, 85c. to 90c., nominal.

Rye (according to freights outside)—No. 2, \$1.25.

Flour—Manitoba (Toronto)—Government standard, \$10.85 to \$11.10; Ontario (prompt shipment). Government standard, \$10.85 to \$11.10, in bags, Montreal, \$9.55 to \$9.75, in bags, Toronto.

Millfeed.—(Car lots delivered, Montreal freights, bags included)—Bran, per ton, \$40.25; shorts, per ton, \$42.25; good feed flour, \$3.25 to \$3.50 per bag.

Hay.—(Track, Toronto)—No. 1, per ton, \$20 to \$21; mixed, per ton, \$18 to \$19.

Straw.—(Track Toronto)—Car lots, per ton, \$10 to \$11.

Hides and Wool.

Prices delivered in Toronto. City Hides.—City Butcher hides, green, flats, 18c.; calf skins, green, flats, 30c.; veal kip, 20c.; horse hides, city take-off, \$6 to \$7; sheep, \$3 to \$4.

Country Markets.—Beef hides, flat, cured, 18c. to 20c.; green, 16c. to 17c.; deacon and bob calf, \$2 to \$2.75; horse-hides, country take-off, No. 1, \$6 to \$7; No. 2, \$5 to \$6; No. 1 sheep skins, \$2.50 to \$4; horse hair, farmers' stock, \$28.

Tallow.—City rendered, solids, in barrels, 14c. to 16c.; country solids, in barrels, No. 1, 14c. to 16c.; cakes, No. 1, 18c. to 19c.

Wool.—Unwashed fleece wool as to quality, fine, 50c. to 55c. Washed wool, fine, 75c. to 80c.

Farm Produce.

There was again no change in butter during the week; creamery, fresh-made

Made in Canada

Tarvia

Preserves Roads
Prevents Dust-

How One Farmer Carried the Bond Issue—

A WELL-KNOWN engineer tells this story, and it's the best good-roads story we ever heard.

He says the district was in terrible need of better roads. The mud all through was so deep that it was impossible to use wagons, all travelling being done either on foot or horseback.

In spite of the need there was little enthusiasm for good roads when the Highway Board met. Everyone was afraid of the presumed high cost and increased taxes.

A farmer in the back of the room arose.

"Mr. Chairman," he said, "I ain't fit to address a dignified meeting like this, but that's because I've had to travel for ten miles over the kind of roads you give us.

"I couldn't drive, I had to ride horseback. My boots are covered with mud; my trousers are covered with mud; my coat is covered with mud; and if I hadn't stopped to wash my face would be covered with mud, too.

"I look as if I had crawled here on my hands and knees, and I'm only half through because I've still got to go back, with five dollars' worth of groceries that I bought from brother Fletcher.

"If there had been a good, hard road that my old horse could climb up and draw in a load of lumber that I've got ready, I would have bought twenty-five dollars' worth of groceries instead of five dollars' worth, and there would have been that much more money in town to-night."

And the mud-covered farmer sat down! Other speakers took up his case. They pointed out that good roads were an asset instead of a liability; an economy instead of an expense; that they brought money into a town and greatly increased the markets.

The result was that the Commissioners enthusiastically passed a resolution to issue bonds enough to give them several miles of good roads.

Mud holes may look cheap, but they are the costliest thing any community can have around. If you will build and maintain your roads with Tarvia you will have dustless, mudless, frost-proof highways that cost little to construct and maintain.

Illustrated booklet free on request.

The **Barrett** Company

LIMITED
MONTREAL TORONTO WINNIPEG VANCOUVER
ST. JOHN, N. B. HALIFAX, N. S. SYDNEY, N. S.

What Should an Engine Weigh?

Abraham Lincoln was asked how long a man's legs should be and he replied, "they should be long enough to reach the ground—and no longer." An engine should weigh enough to do its work—and no more. Years ago it was necessary to cast engine parts very large and heavy, with heavy base and fly-wheel, or the violent explosions and fast and slow speeds of the old-style engine would tear it to pieces.

Six years ago the Cushman Motor Works designed a new type of farm engine weighing about one-fifth as much per H. P. as other farm engines, but so well built, balanced and governed that it ran more steadily and quietly than a farm engine was ever known to run. Some people laughed, and said that an engine weighing only 190 lbs. must be a toy, but when they saw the Cushman at work beside heavy engines weighing five or six times as much, they realized that weight does not mean power, and that the Cushman is a giant in power for its size.

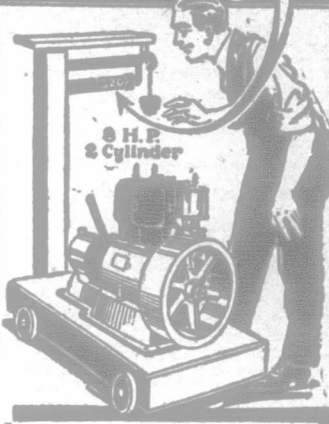
Cushman Light Weight Engines

40 to 60 Pounds per Horse Power
4 H. P. Weighs Only 190 lbs. 15 H. P. Weighs Only 750 lbs.
8 H. P. Weighs Only 320 lbs. 20 H. P. Weighs Only 1200 lbs.

Cushman Engines have Throttle Governor and Schebler Carburetor, insuring regular speed even on jobs of irregular loads, like sawing. Their perfect balance also helps to make them steady, insuring unusual durability and freedom from engine trouble.

The 4 H. P. and the 8 H. P. are mounted on trucks, if desired, and may be pulled around by hand. These are very useful engines, as besides doing all work heavy engines do, they may be attached to machines in the field, as 4 H. P. on grain and corn binders and 8 H. P. on hay balers. All engines over 4 H. P. are double cylinder, which means steadier power.

The Cushman is not a cheap engine, but it is cheap in the long run. Engine Book free.



Before Buying Any Engine
Ask These Questions

How much does it weigh? If it weighs more than 60 lbs. per horse power, why? Is it throttle governed? A throttle governor insures steady, quiet economical power.

Cushman Motor Works of Canada, Ltd.

Dept. L. A., 36 Colborne St., TORONTO, ONT.

Winnipeg Moose Jaw Saskatoon Calgary Edmonton

Farmers— Bank Here By Mail

Just mail your cheques to us—we deposit them to your credit and send you a prompt acknowledgment.

If you need cash we cash your cheques by mail, too, sending you the money in a registered letter.

We understand the farmer's problems and gladly assist him in every way possible.

We will welcome your account.

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

THE BANK OF NOVA SCOTIA

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



The Molsons Bank

IS ALWAYS GLAD TO ASSIST FARMERS

in any legitimate financial way to make their farms more productive.



State your requirements to our local manager and he will be glad to advise and assist you.

SEEDS

While stocks last we offer the following!—

Red Clover—No. 3	Per bus. \$24.00
Alsike—No. 3	15.00
Timothy—No. 3	6.00

Cotton Bags 60 cts. extra.
T. rms—Cash with order.
Samples mailed on request.

J. A. SIMMERS
Limited
TORONTO - ONTARIO

Sweet Clover

White Blossom \$11.50 per bushel, bags included. Write for sample.
EARL SMITH - Mooretown, Ont.

pound squares selling at 56c. to 57c. per lb. Creamery cut solids, at 54c. to 55c. Dairy butter at 45c. to 52c.

Oleomargarine, 32c. to 34c.
Eggs.—New-laid eggs again declined, selling at 48c. per dozen, wholesale. Selects in cartons bringing 50c. to 52c. per dozen.

Cheese.—The cheese market is very firm at slightly advanced prices. Year-old Stilton selling at 35c. per lb.; June cheese at 31c. per lb., and September at 28½c. to 29½c. per lb., wholesale.

Honey.—Honey has weakened during the past week selling at 25c. to 28c. per lb., in 60, 10 and 5-lb. pails.

Poultry advanced slightly being quoted as follows, for live weight to producers: Chickens, crate fed, per lb., 28c.; chickens, per lb., 26c.; hens, under 4½ lbs., per lb., 25c.; hens, 4½ to 5 lbs., per lb., 28c.; hens, over, 5 lbs., per lb., 30c.; roosters, per lb., 22c.; ducks, per lb., 35c.

Wholesale Fruits and Vegetables.

Apples.—Prices have firmed considerably on the wholesales here, owing to an active demand and limited supply—though the old country market has weakened; and are now selling as follows: Ontario barrels at \$6 to \$10; boxes at \$2 to \$3.75; while the westerns sell at \$3.25 to \$4.25 per box.

Grapefruit kept stationary at \$5 to \$6 per case.

Lemons did not vary at \$4.50 to \$5 per case.

Oranges advanced, selling at \$5.50 to \$6.50 per case.

Rhubarb prices remained unchanged at \$1 to \$1.50 per dozen bunches.

Strawberries sold at 75c. to \$1 per box.

Tomatoes—Both California and Florida tomatoes came in in small quantities, selling at \$10 per case and \$12 per six-basket crate respectively.

Beans.—The bean market is very slow at \$2.75 to \$3.50 per bushel.

Beets.—Beets did not change in price selling at 90c. to \$1 per bag.

Cabbage has become rather a slow sale again at \$1.50 to \$2 per barrel.

Carrots and turnips brought from 65c. to 75c. per bag according to quality.

Cauliflower.—California cauliflower of extra choice quality came in freely during the week, selling at \$2.25 to \$2.50 per pony crate (9 to 15 heads).

Lettuce continues to be scarce; home-grown leaf of small size, selling at 35c. to 40c. per dozen bunches.

Onions have firmed materially, and there is now an active demand for choice quality goods. They are selling at \$1.50 to \$1.75 per 75-lb. bag and \$2 to \$2.25 per 100-lb. sack, poorer quality grading from those prices down.

Potatoes.—This week's arrivals of Ontario potatoes have generally been of extra choice quality, selling at \$1.15 to \$1.25 per bag.

Chicago

Hogs.—Butchers, \$17.50 to \$17.75; light, \$16.50 to \$17.75; packing, \$16.65 to \$17.45; throw-outs, \$16 to \$16.65; pigs, good to choice, \$14 to \$16.

Cattle.—Compared with a week ago, beef steers unevenly 25c. to 75c. higher; fat cows, heifers, bulls and feeders, 25c. to 50c. higher; canners and cutters, 25c. to 50c. lower; calves, 75c. higher.

Sheep.—Market unevenly 50c. to \$1 higher than a week ago; yearlings and strong-weight and in-between grades of lambs advancing most.

Cheese Markets

New York, specials, 30c. to 31¼c.; average run, 30½c. to 30¾c.; Montreal, finest easterns, 24c. to 25c.

Buffalo.

Cattle.—Cattle market was high and most satisfactory at Buffalo last week, the result of lighter runs than have been had in recent weeks, and the further fact of favorable weather for a better dressed beef outlet. Demand was strong for all classes of cattle and prices fully a quarter higher than the previous week were paid for steers of any weight and on the general run of butchering cattle. In sympathy with fat cattle stockers and feeders brought stronger prices. Bulk of all kinds ruled higher, while a good, strong market was had on milk cows and springers. Canadians were not as plenti-

"Profits from Savings"

is the subject of a little booklet that we want to place in the hands of every reader of this paper who is anxious to save, and to invest his or her savings where they will earn 5½% with safety of principal and regularity of interest.

Many of the people to whom we have sent this book, as a result of receiving it, have invested their funds in

Standard Reliance 5½% Mortgage Corporation Debentures

The debentures are issued in amounts of \$100 and upwards, and are made repayable at a fixed period to suit your convenience.

Thousands of people have invested their savings in these debentures without the loss of one dollar invested.

We know the book is interesting, and we will send it to you free. Write for one to-day.

Paid up Capital and Surplus Funds . . . \$3,362,378.63



STANDARD RELIANCE MORTGAGE CORPORATION

HEAD OFFICE—TORONTO

Branch Offices: Ayr, Elmira, Brockville, New Hamburg, Onatnan, Woodstock

The Farmer-Banker Alliance

You go to your lawyer for legal advice; to the doctor for medical advice; why not to The Merchants Bank for financial advice?

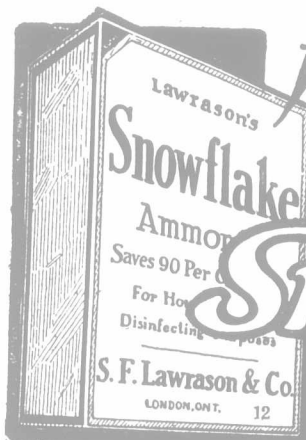
If you want a loan to buy cattle, hogs or equipment—if you want information as to how to invest money—come to those who make a business of financial matters, and are in a position to give you sound and impartial advice.



THE MERCHANTS BANK OF CANADA

Head Office: Montreal. OF CANADA Established 1864. With its 107 Branches in Ontario, 34 Branches in Quebec, 1 Branch in New Brunswick, 2 Branches in Nova Scotia, 25 Branches in Manitoba, 34 Branches in Saskatchewan, 65 Branches in Alberta and 8 Branches in British Columbia serves Rural Canada most effectively.

WRITE OR CALL AT NEAREST BRANCH



for the bathroom
Keeps the closet clean
Brightens taps
Whitens the bath and basin

Snowflake Ammonia

THE FULL STRENGTH

Ammonia

Let Us Know Your Brick Requirements Now
Once the building season really opens up it is hard to meet the demand for a quality product like—

MILTON BRICK

We can ship NOW, from full stocks of Red and Buff Pressed, or the famous Milton "Rug" in varied shades. Let us know your needs.

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

Judicial Sale

In the Supreme Court of Ontario
RE HOPKINS—HOPKINS VS. HOPKINS

PURSUANT to the judgment made in this matter and bearing date the 8th day of February 1919, there will be sold by John G. Gauld, Esquire, Local Master at Hamilton, at his Chambers in the Court House, Hamilton, on Saturday, the 22nd day of March, 1919, at the hour of twelve o'clock noon, the following lands and premises in five parcels, that is to say:

PARCEL No. 1.—The Easterly part of Lot number twenty-four in the Broken Front and First Concessions of the Township of Saltfleet in the County of Wentworth (Saving and Excepting therefrom the right of way of the Grand Trunk Railway Company's main line and that of the Toronto and Niagara Power Company) containing by admeasurement 49.70 acres more or less.

PARCEL No. 2.—The Westerly part of Lot number twenty-four in the Broken Front and First Concessions of the Township of Saltfleet (Saving and Excepting those parcels heretofore conveyed to Phineas Bush and Ida G. Stewart) containing by admeasurement 18.37 acres more or less.

PARCEL No. 3.—Lot number one in Block number seven on the plan of the Village of Hopkinsburg filed in the Registry Office of the County of Wentworth on the 10th day of April, 1888.

PARCEL No. 4.—Lot number two in Block number seven on the said plan of the Village of Hopkinsburg.

PARCEL No. 5.—Lot number five in Block number seven on the said plan of the Village of Hopkinsburg.

Parcel No. 1 is situated a few rods East of the corner of Barton Street and the Stoney Creek Road and is entirely set out in fruit; about five acres of grapes in first class condition, and the balance an apple orchard, well trimmed, in good bearing with winter fruit, and all in good condition; all the lot is sandy loam in first-class state of cultivation. On the premises are erected a concrete house with fourteen rooms in fair condition, and a medium-sized frame barn. This property is half a mile from the Grand Trunk station at Stoney Creek and a mile and a quarter from the Village of Stoney Creek, where there are schools and churches, and is near the proposed Provincial Highway.

Parcel No. 2 is all set out in apple trees, in good condition bearing winter fruit. There are no buildings on the property, which lies along the Stoney Creek Road within three hundred yards of the Grand Trunk station and on the main travelled road from Niagara Falls to Toronto over Burlington Beach. It is separated from parcel No. 1 by an inlet connecting with Lake Ontario.

Parcels Nos. 3, 4 and 5 are Lots having a frontage on Reform Street of about sixty feet each and running Northerly to the waters of Lake Ontario and are suitable for summer residences.

The properties will be offered for sale subject to a reserve bid on each of the said parcels fixed by the said Master.

The purchasers will be required to pay down a deposit of 10% of the purchase money on the day of sale and execute a contract to complete the purchase, and the balance of the purchase money must be paid in cash within 30 days thereafter without interest.

In all other respects the terms and conditions of sale will be the standing conditions of the Supreme Court of Ontario.

Further particulars can be had from S. F. Washington, K.C., Hamilton Provident Chambers, Hamilton; Langs & Binkley, Barristers, Merchants Bank Building, Hamilton; Dr. William B. Hopkins, 158 Mary Street, Hamilton; Charles Edward Hopkins, Stoney Creek or Robert P. Slater, 47 Terrace Avenue, Niagara Falls, Ontario.

DATED this 25th day of February, 1919.

John G. Gauld,
Local Master at Hamilton.

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

TERMS—Four 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 60 cents.

FOR SALE—94 ACRES OF GOOD LAND, County Middlesex, good frame house, with furnace, telephone, rural route; bank barn, hay shed, drive shed and pig pen. Lots of water, with windmill to pump same. Half mile from village, church, station, etc. Purchaser has privilege of renting adjoining 50 acres. For particulars etc. apply Roy Eddie, Apin, Ont.

FOR SALE—200 ACRE FARM, FIRST-class condition, buildings included. Apply F. H. Orris, Box 142, Springfield, Ontario.

FARM TO RENT—435 ACRES VERY choice land, Borden's Condensed Milk factory within half a mile; unexcelled market for milk, cattle, hogs, grain; 275 acres under cultivation; 160 acres pasture, 28 acres fall wheat; large brick barns with cement silos; running water at each cow stall; house has all modern conveniences; this farm has been a money maker for every tenant; possession given March 15th next; investigate. Write to the E. D. Tillson, Estate Limited, Tillsonburg, Ontario.

OLD COUNTRYMAN WITH LIFE EXPERIENCE, will hire (in Lambton County preferred) to handle stallion; must be good big horse list. Reference given from importers. Box R, Farmer's Advocate, London, Ont.

WANTED—MAN EXPERIENCED IN ALL lines of farm work and in handling stock, a good milker and capable of feeding and caring for cows on record work. Apply box 25, Farmer's Advocate, London, Ont.

SEED CORN
1st class strong vigorous seed, carefully grown, selected and tested by myself. Germination guaranteed. White Cap and Wisconsin No. 7. Prices right. A. Grant Fox, Ruthven, Ont.

FOR SALE
A limited quantity of home grown Alfalfa and Red Clover Seed, Good and clean. Graded in a few days. Price \$26.00 a bushel including bags. G. Christie & Sons, Port Elgin, Ont. R.R. 3 Bell Telephone

ful as they have been during recent weeks, about seventy-five cars covering receipts here from the Dominion. Best Canadian steers, averaging only around eleven and a half, sold around \$15.75 but were not a very good kind at that. Best native steers reached \$18. Sellers generally are taking a favorable view of the market for the future, believing that unless offerings run too freely, that values will hold to present standard. Offerings for the week totaled 4,175 head, as against 6,850 for last week, and as compared with 2,525 head for the corresponding week a year ago. Quotations:

Shipping Steers, Natives.—Choice to prime, \$17 to \$18.50; fair to good, \$16.25 to \$16.75; plain and medium, \$12 to \$14; coarse and common, \$10.50 to \$11.

Shipping Steers, Canadians. — Best heavy, \$15.50 to \$16; fair to good, \$13.50 to \$15.25; medium weight, \$12 to \$15; common and plain, \$10.75 to \$11.

Butchering Steers.—Yearlings, choice to prime, \$16 to \$17; choice heavy, \$16 to \$16.50; best handy, \$14.50 to \$15; fair to good, \$12.50 to \$14; light and common, \$10 to \$11.

Cows and Heifers.—Best heavy heifers, \$11.50 to \$12; good butchering heifers, \$11.25 to \$12; fair butchering heifers, \$10 to \$10.50; light common, \$8 to \$9; very fancy fat cows, \$10.50 to \$11; best heavy fat cows, \$9.50 to \$10; good butchering cows, \$9 to \$9.50.

Hogs.—Market was quite active all of the past week. Heavy hogs were the most popular with buyers, and they commanded top prices. Monday several decks on the weighty order brought \$18 to \$18.10, but the general price for mixed grades and York weights was \$17.90, and under-weights landed mostly at \$16.50. Tuesday prices were up 10 to 25 cents, top being \$18.25. Wednesday the best grades brought \$18.25 to \$18.35, with underweights selling from \$16.25 to \$17.25; Thursday's market, outside of one deck of heavies that brought \$18.45, was generally steady, and Friday prices were off 15 to 25 cents, top, which was for heavies, being \$18.15, bulk moved at \$18, and lights and pigs ranged from \$16.25 to \$17. Good throwout roughs sold largely at \$15.50, and stags ranged from \$13 down. The past week's receipts totaled 23,900 head, being against 36,079 head for the week before, and 20,400 head for the same week a year ago.

Montreal.

Horses.—There is some demand from farming sections for good mares ranging in price from \$150 to \$200, but heavy horses are almost unsaleable at the moment. Prices showed little change from week to week. Heavy draft horses, weighing 1,500 to 1,700 lbs., were \$2.50 to \$300 each; light draft, weighing 1,400 to 1,500 lbs., \$200 to \$250 each; light horses, \$125 to \$175 each; culls, \$50 to \$75 each. Fine saddle and carriage horses, \$175 to \$250 each.

Dressed Hogs.—Dressed hogs are in good demand, and the market was practically unchanged. Sales of country dressed hogs were taking place at 22c. to 23c. per lb for light and medium weights, while abattoir fresh-killed stock sold at 24c.

Poultry.—This market is holding very steady. Supplies were not specially large, but equal to demand, and prices held steady at 43c. to 45c. for turkeys; 35c. to 40c. for chickens; 28c. to 32c. for fowl; 33c. to 38c. for ducks; and 27c. to 30c. for geese.

Potatoes.—The market for potatoes showed no particular disposition to advance. Weather was favorable for handling and prices were not unreasonably high by comparison with other foods, so that a fair trade was going on. Car lots of Green Mountains were quoted at \$1.65, and of Quebec whites at \$1.50 per bag of 90 lbs., ex-track, with prices 25c. more for smaller lots, ex-store.

Eggs.—The tendency of prices has been downward, though there was no great change during the week. American eggs have been coming in, and Chinese eggs have been reported. The latter were said to be selling here at 40c. to 42c. per dozen. Dealers say that they have been buying from farmers in the country at 40c. to 43c. for straight gathered, Canadian eggs, but jobbing prices in the local market were said to be from 48c. to 50c. per dozen for new laid, and 40c. to 43c. or cold storage.

Butter.—Demand for butter continued active, and as supplies were none too large, the tone of the market was steady

WHAT IS

"Clover-Sick" Land?

It is over-worked, worn-out and sour land, which will not produce a good stand of clover.

What does it need?

It needs a liberal dressing of

Elora Agricultural Lime

Why?

Because this lime has passed practical tests on our own farms at Caledonia, in the correction of soil sourness, etc.

It is a mixture of burnt lime and ground limestone. It will have immediate effect, and will last for years.

How does this Lime work?

Lime unites with the acids in the soil and forms salts of lime, which have a very beneficial action on the soil.

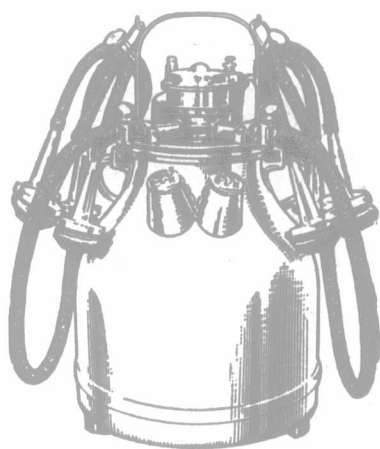
Lime combined with manure is the cheapest and best way to increase the fertility of your soil.

Consult us, we will advise you. We will analyze your land for you.

WRITE FOR OUR BOOKLET.

The Alabastine Company, Limited
PARIS ONTARIO

You Pay The Price



BURRELL
(B-L-K)
MILKER
Good for the Herd

D. DERBYSHIRE CO., Limited, Brockville, Ont.

When you or your help take the time to milk by hand you are paying the price out of your pocket for the extra time taken to milk the cows. That money in a surprisingly short time would pay for a Burrell B-L-K Milker.

When you install a B-L-K you immediately begin to save two-thirds of the time it takes to milk your cows. It means one or even two less hired men.

Hundreds of dairymen have installed a B-L-K to save this extra time and money. Besides, cows are less restive and give more milk when milked with a B-L-K.

Write us to-day for further information and let us show you how easy it is to save time and do cleaner milking with the B-L-K Milker.

Savings

Booklet that tells of every anxious to her savings with safety of interest.

From we have of receiving in in

% Mortgage features

of \$100 and at a fixed period

their savings in of one dollar

and we will send ay.

\$3,362,378.63

RELIANCE CORPORATION TORONTO

Offices: TORONTO, ONTARIO; WOODSTOCK

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o buy cattle, hogs or information as to come to those who financial matters, and give you sound and

TS BANK

Established 1864. Branch in New Brunswick, 2 Branches in Saskatchewan, 65 Branches in Alberta effectively. BRANCH

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closet clean ns taps bath and basin

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Requirements Now as up it is hard product like—

RICK

of Red and Buff in varied shades.

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The best insurance of a good hatch of sturdy, vigorous chicks is to give your breeding stock **Pratt's Poultry Regulator** in their feed. "Pratt's" keeps the breeding birds in prime condition. Produces more eggs and eggs that are fertile. Chicks will be sturdy and develop quickly. At your dealer's in pkgs., also 25-lb. pails and 100-lb. bags. Money Back if Not Satisfied. Write for new book on care of Poultry. It's FREE. Pratt Food Co. of Canada, Limited, P-22, 328L Carlaw Ave., Toronto.

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AFRICAN GANDERS, INDIAN RUNNER, Pekin and Muscovy ducks, Barred Rock cockerels. John Annesser, Tilbury, Ont.

BABY CHICKS—BRED TO LAY, S. C. WHITE Leghorns. Catalogue. Cooksville Poultry Farm, Cooksville, Ont.

BARRED ROCK EGGS, FIFTEEN TWO dollars, thirty, three fifty. Few good cockerels for sale, three to five dollars each. Order direct from this advertisement. Satisfaction guaranteed. Walter Bennett, Box 43, Kingsville, Ontario.

BABY CHICKS AND HATCHING EGGS. Barred Rocks, White Rocks, White Wyandottes, Golden Wyandottes, Rhode Island Reds and White Leghorns. Purebred Utility stock. Incubator capacity 9000. Satisfaction guaranteed or money refunded. Write for prices. Tay Poultry Farm, Perth, Ontario.

BRED-TO-SHOW LAYING STRAIN BARRED Rock eggs for hatching. Write for catalogue. Chas. Barnard, Leamington, Ont.

BARRED ROCK SPECIALIST TWENTY years. Eggs from choicest matings \$3.00 per 15. Earl Bedal, Brighton.

BARGAIN IN BREEDERS—LAYING AND Exhibition Stock. I offer breeding pens, 6 females and one male, for twenty-five dollars in each of the following varieties, Buff, Brown and White Leghorns, Buff and White Orpingtons, White and Barred Rocks, S. C. and K. C. Anconas, S. C. Black Minorcas, R. C. and S. C. Rhode Island Reds, White Wyandottes, Silver Crested Polands N.B. Also Cock and Cockerels of the above varieties, price three to fifteen dollars each. Eggs for hatching from the above varieties, three and five dollars for fifteen. The Idlewild Poultry Yards, Burlington, Ont. C. F. Coleman Prop.

CLARK'S BUFF ORPINGTONS FOR SALE— 30 strong vigorous cockerels, good type and color. Same breeding as 1st and 2nd Ontario 1918, at \$4. \$5. \$8. each. 50 pullets and hens good breeders, \$3. \$4. \$5. each. All good laying strains, a good breeding pen of 5 birds properly mated at \$20. \$25. Will start you right and please you. Mating list, free. J. W. Clark, R.R. 1, Cainsville, Ont.

CANADIAN RINGLET BARRED ROCKS— Trapped daily for 5 years. Send for records. F. J. Coldham, Box 12, Kingston, Ont.

FOR SALE—MUSCOVY DUCKS \$5.00 PER pair. Eggs for hatching \$2.00 per setting. Apply J. A. Tancock, 96 King Street, London.

FORTY BARRED ROCK COCKERELS from yearly trapped stock. Three, four and five dollars each. W. J. Johnson, Drawer 246, Meaford, Ontario.

PUREBRED SINGLE COMB WHITE LEGHorns, Rose Comb White Wyandottes. Bred-to-lay and prizewinning stock. Eggs \$2.50 per fifteen. Esra Stock, Woodstock, Ontario.

REGAL DORCAS WHITE WYANDOTTES America's Finest Strain, winners at New York and Boston, splendid layers of dark brown eggs. Official records 200 to 255 in North American laying contests. Vigorous matured cockerels \$4.00 and \$5.00 each. Eggs \$3.00 and \$5.00 per setting. FREE illustrated catalogue. John S. Martin, Port Dover, Ontario.

ROSE COMB BROWN LEGHORNS, BRED to lay cockerels, extra large and very vigorous, \$3.00 and \$5.00. Also a limited number of pullets. Wm. English, Box A, Ingersoll, Ont.

SINGLE COMB WHITE LEGHORN BABY chicks from our celebrated laying strain, for sale. Utility Poultry Farm, G. O. Aldridge, Mgr., Lt. Col. T. G. Delamere, Prop., Stratford, Ont.

TWO YOUNG BRONZE GOBBLETS FOR sale, good size. Apply James Baskerville, R. No. 4, Thornley, Ontario.

TWO PENS SINGLE COMB RHODE ISLAND Reds for sale (seven pullets and cockerel) at \$15. Owen Farms strain. Also hatching eggs after 1st March. For further particulars write: H. W. Pringle, Napanee, Ont.

WHITE LEGHORN COCKERELS (PEDIGREED), from trap-nested stock, trapped by myself, from heavy producers; to improve your flock nothing else would do you. Write to-day. Bradley Linscott, Brantford.

WHITE LEGHORNS—CHAMPION LAYERS. Splendid breeding. Cockerels \$5. Exhibition birds fitted for any show. Eggs for hatching from first-prize Guelph birds. Mating list free. W. T. Ferguson, Smith's Falls, Ontario.

to firm, with finest creamery selling at 51½c. to 52c. in solids, and about 1c. more in blocks. Fine stock run about ½c. under the above, and dairies ranged from 42c. to 44c.

Cheese.—Prices were unchanged, the Commission quoting 25c. for No. 1; 24½c. for No. 2, and 24c. for No. 3.

Grain.—The market for oats showed very little change during the week. No. 2 Canadian Western were quoted at 82½c. per bushel; No. 3 being 77c.; extra No. 1 feed, 78½c.; No. 1 feed, 74½c.; No. 2 feed, 70½c.; Ontario No. 2 white, 72c.; and No. 3 white 70c. per bushel ex-store. Barley was firm with Ontario extra No. 1 feed at \$1.02; No. 3, \$1.01; and Manitoba sample grades, 94c. per bushel, ex-store.

Flour.—Government standard Manitoba spring wheat flour for shipment to country points was quoted at \$11 per barrel, in jute, ex-track, Montreal freight, and to city bakers, with 10c. off for spot cash, and 10c. to 20c. on for smaller lots. Ontario winter wheat flour, in broken lots, sold at \$10.20 to \$10.30 in cotton, per barrel. White corn flour was \$9 to \$9.10, and rye flour, \$10 per barrel in bags.

Millfeed.—Bran was quoted at \$40.25 to \$40.50; shorts at \$44 to \$45; pure grain mouille, \$64; pure oat mouille, \$60 to \$62; mixed grain mouille, \$47; pure barley feed, \$52 to \$54; and dairy feed at \$43 per ton, including bags.

Hay.—Business was fair. No. 1 timothy sold at \$25; No. 1 light clover mixed, \$24; No. 2 timothy, \$24; No. 2 clover mixed, \$23; and No. 3 timothy at \$22 per ton, ex-track.

Hay Seed.—Prices are rather too uncertain at the moment to quote, but timothy and clover are evidently well above prices of a year ago. The market was very strong in January, experienced something of a break in February, and is now firming again.

Hides.—Veal skins were 50c. per lb.; grassers and kips, 20c.; beef hides, 17c. for cows; 15c. for bulls, and 21c. for steers flat; lamb skins advanced to \$2.75 each; horse hides, \$5 each to \$6.50.

Sale Dates.

- March 6, 1919.—Bruce County Breeders' Club, Walkerton, Ont.—Shorthorns. N. C. McKay, Secretary.
- March 12, 1919.—Irwin McMahon, Hawkstone, Ont.—Shorthorns.
- March 6, 1919.—Caledonia Shorthorn Breeders' Consignment Sale.—Shorthorns. H. A. Scott, Secretary.
- March 6, 1919.—Geo. E. Morden, Oakville, Ont.—Shorthorns.
- March 11, 1919.—Simeon Gingrich, R. R. 1, Blair, Ont.—Jerseys.
- March 12, 1919.—Perth District Holstein Breeders' Club, Stratford, Ont.—A. C. Park, Secretary.
- March 13, 1919.—London District Holstein Breeders', London, Ont.—John McMillan, Sec.
- March 13, 1919.—Wm. T. McCormick, R. R. No. 1, Paris, Ont.—Shorthorns, Horses, etc.
- March 14, 1919.—H. B. Taylor, Mount Elgin, Ont.—Holsteins.
- March 18, 1919.—A. Hughes & Son, Sarnia, Ont.—Jerseys.
- March 19, 1919.—John Elder, Hensall, Ont.—Shorthorns.
- March 19, 1919.—Oxford Holstein Breeders' Club, Woodstock, Ont.—W. E. Thomson, Sec.—Treas.
- March 20, 1919.—W. B. Poole and A. Groves, R. R. No. 5, Ingersoll, Ont.—Holsteins.
- March 20, 1919.—Ira Minor & Sons, Low Banks, Ont.—Scotch Shorthorns.
- March 20, 1919.—Senator Robt. Beith, Bowmanville, Ontario.—Clydes and Hackneys.
- March 25, 1919.—Mrs. S. A. Moore, Caledonia, Ont.—Shorthorns.
- March 26, 1919.—Brantford Holstein District Club, Brantford, Ont.—N. P. Sager, Sec., St. George, Ont.
- March 26, 1919.—Western Ontario Consignment Sale, London, Ont.—Shorthorns.
- March 27, 1919.—Elgin Holstein Breeders' Club Sale, St. Thomas, Ont.—E. C. Gilbert, Sec.
- April 1, 1919.—J. J. Merner, Seaforth, Scotch Shorthorns.
- April 2, 1919.—Belleville District Holstein Breeders, Belleville, Ont.—Jas. Caskey, Sec., Madoc, Ont.
- April 3 and 4, 1919.—Western Canada Shorthorn Show and Sale, Brandon, Man.
- April 2, 19.—Laurie Bros., R. 1, Agincourt, Ont.—Ayrshires.
- April 10 11, 1919.—Canadian National Holstein Sale.—Toronto.

MAKE YOUR HENS LAY NOW

YOU want eggs to sell at these war-time prices, and you want to do your full part toward increasing the world's food supply.

Speed up the laying. Get your hens in finest laying trim by feeding Dr. Hess Poultry Pan-a-ce-a. It helps to make poultry healthy—to make hens lay—to make chicks grow.

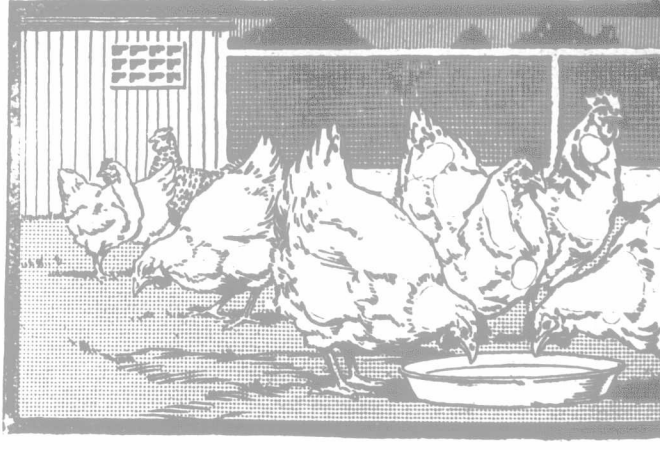
Mating time is here. Now's the time to put your hens and roosters in the pink of condition. If you want chicks that will live and develop rapidly, if you want early broilers, if you want pullets that will develop into early winter layers, then feed the parent stock Dr. Hess Poultry Pan-a-ce-a.

Remember, its the singing, scratching, industrious hen that lays the healthy, fertile eggs that will hatch into strong, livable chicks. Feed Pan-a-ce-a for results. Buy according to the size of your flock—a penny's worth for every hen to start with. A good rule for feeding is a tablespoonful once a day for every 20 to 25 hens.

The dealer from whom you buy Pan-a-ce-a will return every cent you pay him if it does not do what is claimed. 35c, 85c, and \$1.75 packages. 25-lb. pail, \$3.50; 100-lb. drum, \$14.00.

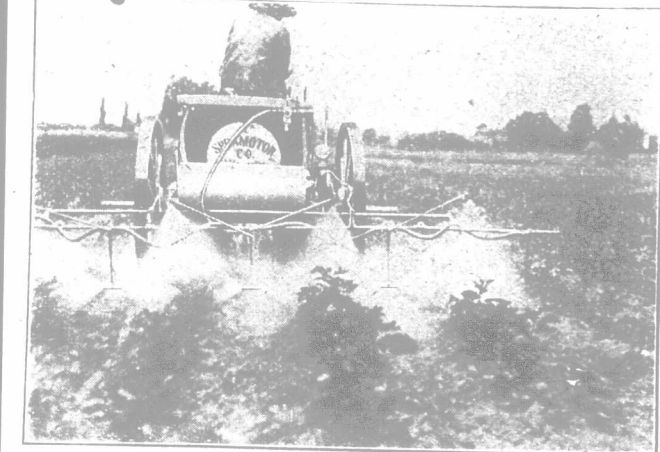
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A Worm Expeller. A Conditioner for Spring Work



Dr. Hess Instant Louse Killer Kills Lice

Getting Double and Triple the Crop with a Spramotor
It isn't a SPRAMOTOR unless we made it.



TO GET twice and three times the yield from row crops, fruit trees and plants is the common experience with Spramotor users. We hesitate to mention the increase secured—they are so great as almost to be incredible.

Buy a spray outfit—moreover, buy a Spramotor, because it is the world's best, made right here in Canada, no duty to pay, has met and beaten the pick of all makes in Government contests and at World's Fairs and Expositions. Every machine guaranteed.

Free We have a valuable illustrated work on "Crop Diseases" to send you, postpaid, for the asking. Also catalogue showing our complete line of hand, horse, knapsack and power machines. Write to-day for your copy.

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"POULTRY PAYS BIG MONEY NOW IS THE TIME TO START"

A small investment in a Collins Hatcher brings quick returns. Cycle Hatchers only \$8.00, Brooder Hatchers \$10.00, and the Radio Sanitary Hovers just \$6.75. One gallon of oil and a little common sense hatches 60 chicks. Send in your order now and ask for catalogue of other poultry supplies.

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war-time prices, and
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POULTRY
PANACEA**



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TO GET twice and three times the yield from row crops, fruit trees and plants is the common experience with Spramotor users. We hesitate to mention the increases some farmers have secured—they are so great as almost to be incredible.

Buy a spray outfit—moreover, buy a Spramotor, because it is the world's best, made right here in Canada, no duty to pay, has met and beaten the pick of all makes in Government contests and at World's Fairs and Expositions. Every machine guaranteed.

Street, London, Canada

**MONEY
TIME TO START**

er brings quick returns. Cycle \$10.00, and the Radio-Sanitary little common sense hatches \$0 for catalogue of other poultry

TURING COMPANY
Toronto, Ontario

Gossip.

H. B. Taylor's Holstein Dispersion.

Of the 45 Holsteins selling in H. B. Taylor's Dispersion Sale at Mt. Elgin, on March 14, not one has ever been officially tested in the farm. Several of the more mature cows which won "the original firsts" in founding the herd carried representative records at the time they were purchased and as all other females listed were bred on the farm from these dams, it should be noted that the present offering all have the best of official backing. The younger females bred from these cows are all sired by good record bulls. All the two and three-year-olds for instance are got by the former herd sire, Pontiac Korn-dyke Akkrum, a grandson of Pontiac Korn-dyke, while the yearlings and calves are all got by King Segis Alcartra Bakker, a son of King Segis Alcartra Calamity. This bull will be three years old this spring and his dam a 23-lb. three-year-old has a 22-lb. two-year-old sister. He will be sold. It is distinctly a breeder's sale throughout and breeders should find it to their advantage to be present on sale day. Requests for catalogues should be addressed to H. B. Taylor, Mt. Elgin, Ont.

Scotch Shorthorn Females.

In the advertising columns of this issue Geo. Ferguson of Creekside Farm, Elora, Ont., is offering a choice lot of Scotch-bred heifers bred to the noted young son of the great Gainford Marquis (imp.) Gainford Count. These heifers are one of the most select lots Mr. Ferguson has ever had in the herd. They are showing in the best of condition, thick, healthy heifers, well fed and well grown, and include such families as Stamfords, Missies, Rosemarys, Clarets, Nonpareils, etc. Gainford Count, the sire to which they are bred, is one of the very best individual sons of the world-famed Gainford Marquis and this service without exaggeration should increase the value of these well-bred heifers almost a hundred fold. They will appeal strongly to all lovers of good Shorthorns. In young bulls this offering at present is rather limited. There being only three of serviceable age left in the stables. These are of the same breeding as the heifers mentioned (two reds and one roan) and like the heifers they have an abundance of size for their ages. For information regarding the entire Creekside offering address Geo. Ferguson, Elora, Ontario.

Dual-Purpose Shorthorns.

Owing to the death of the late S. A. Moore, the entire herd of dual-purpose Shorthorns is to be disposed of by auction on March 25. This sale will give breeders of dual-purpose Shorthorns an unprecedented opportunity of securing choice individuals, either for foundation stock or for herd headers. The late Mr. Moore selected and bred so as to combine beef with milk, and that he succeeded is evidenced by the present herd. The mature cows are big framed, well proportioned and give a good flow of milk during a lactation. Their daughters in milk are also doing exceptionally well. Burnfoot Chieftain, the herd sire, is an outstanding individual. His dam, Dairymaid, has a record of 13,535 lbs. milk, and he is transmitting the milking quality to his daughters. This is a rare opportunity to secure a herd sire that has proven of value. Remember the date is March 25, and the farm is one mile out of Caledonia. Trains will be met on the day of sale, and dinner will be served at the farm. If at all interested in dual-purpose Shorthorns you cannot afford to miss this sale. Write Mrs. S. A. Moore, Caledonia, for a catalogue, giving full details of the breeding and milk records of the individuals.

It often happens. Absconding cashiers are by no means a new invention, and so the manager of the Doughnut Bank thought he had better get a detective on the job, and make his cashier run for his money. Of course the detective wanted particulars.

"Will you furnish me with a description of the missing cashier?" he said. "For instance, how tall was he?"

"I don't know how tall he was," answered the manager testily. "What worries me is that he was \$50,000 short."

**"Scrub" Feeding is as Bad as
"Scrub" Breeding**

A poorly fed cow that gives less than, or only enough, milk to pay for her keep requires just as much attention, just as much feed for upkeep and must be milked just as often as a good cow. Scrub feeding does not pay.



By feeding your cows a ration containing the proper amount of proteins, with a proper balance between constipating and laxative ingredients, together with sufficient bulk for proper digestion, you are bound to get larger yields of milk.

Your feed problem is solved quickly and satisfactorily by using

Monarch Dairy Feed

It is mixed in the proper ratio to produce the largest yields of milk. It keeps the cows in good healthy condition. Monarch Dairy Feed is highly digestible and is composed of oil cake meal, cotton seed meal, bran, corn feed and barley feed—an ideal ration for high milk production.

Monarch Dairy Feed, while being very rich, may be safely fed alone. The guaranteed analysis is: Protein 20%, Fat 4%.

Give Monarch Dairy Feed a trial. It solves one of the important points in successful dairying. Give your dealer's name and we will send you booklet, "Getting the Most Out of Dairying."

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 per cent., Fat 4 per cent.

Sampson Feed

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

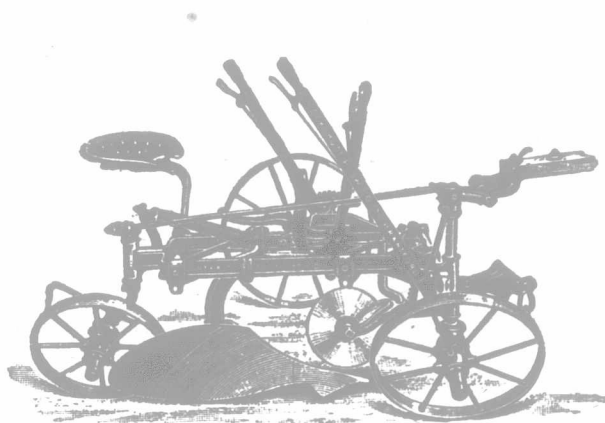
The Campbell Flour Mills Co., Ltd., Toronto, Peterboro, Pickering

Canada Food Board Licenses Nos. 6, 7 and 8.

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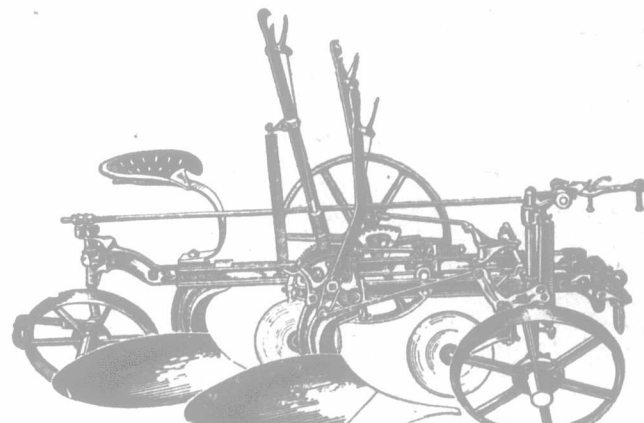
Good Farming STARTS WITH Good Plowing

The farmer who wants to get his plowing done quicker, easier and, generally, better than with the Walking Plow will find exactly what he needs in one of these two very popular Cockshutt Plows. They are famous for light draft, experienced design and high grade materials.



"ONTARIO FOOTLIFT SULKY PLOW"

No need to "favor" this Plow—put it at your toughest field and see how even an inexperienced worker will turn nice, even furrows all day long. The Footlift feature is very convenient, raising or lowering the bottom by simple foot pressure only. Immensely strong yet light in draft through high grade bearings and sensible design.



"BEAVER" GANG PLOW

Many years of splendid satisfaction is the report from hundreds of owners of this famous Plow. Very convenient levers control all its workings and when once set and started it's a real pleasure to watch the smooth uniform furrows it makes. Very valuable for thorough plowing in rough uneven ground. Strong and rigid: won't pull out of shape, yet very light in draft.

Write our nearest Branch for Catalogue and talk over any Implement requirement with our nearest Agent. His knowledge and suggestions will be valuable to you.

Cockshutt Plow Co.
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BRANTFORD - ONTARIO

Sold in Eastern Ontario,
Quebec, and Maritime
Provinces, by

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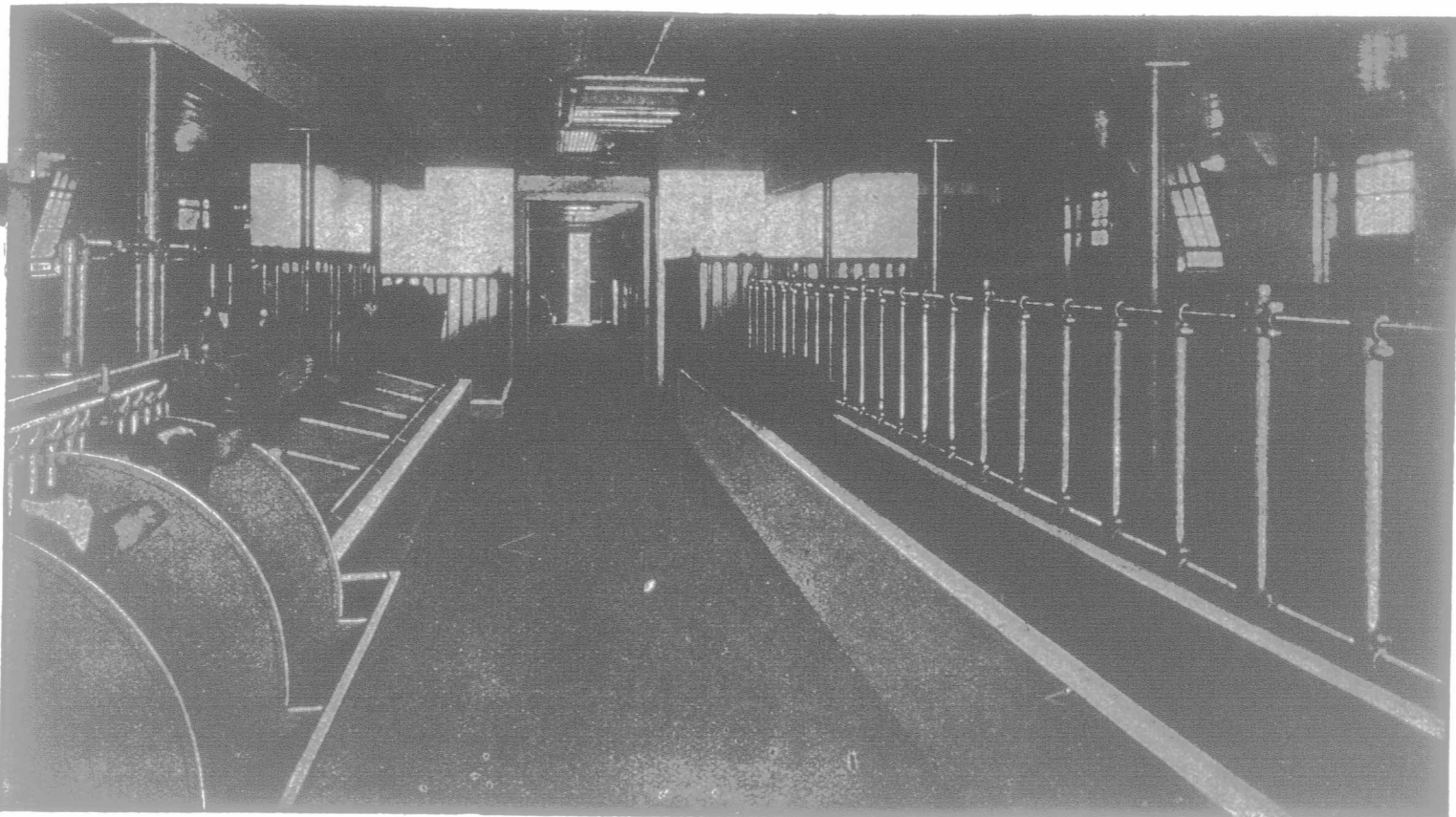
Montreal, Que., Smith's Falls, Ont., St. John, N.B.

Gossip,

Almedie Angus Offering.
 In these columns Thos. of Fergus, Ont., is advertising offering of Aberdeen-Angus bulls are all sired by the bull, Fairview Prince, which of the noted sire of champions, Mr. Broadfoot has been very successful with his home in both Toronto and London but he remarked that he a stronger lot than these which make up his present females in the sales' list are breeding and are bred to the sire, Elm Park Radiator. It will be remembered was throughout the Western Fairs' season and completed the capturing the junior champion. He belongs to the Rose and is got by Beauty's Leroy. Not purchased him from Mr. immediately after the shows

in Herd at Highland Lake.

Report summary of the Highland of pure-bred Holstein-Friesian space has made it necessary by confining these lines to cows only. As for the farm, is equally worthy of notice; is one of the largest but also best equipped in York County, Mr. Burnaby, the proprietor, president of the United Farmer's Co., already received sufficiency, to familiarize his name with the majority of readers of the paper. Getting back again, the Holsteins, the Highland at present numbers approximately 100. Included in these are cows an well as a score of heifers have records running all the way from 20 to 28 lbs. Listing the names in their order of merit, Korndyke comes first with 124.64 lbs. Tidy Albino DeKol, a year-old, follows and Daisy Korndyke comes in third with 123.32 lbs. Of the other two Simcoe cows are eight points above Helena Pauline Korndyke points below. As these five have been in the herd now for and have all been regular milkers are now considerable in the present sales' lists, sired by May Echo Sylvia's sire Pontiac Echo, which is Burnaby's herd sire (under the past three seasons. At present are only two sons of 30-lb. that are old enough for sale here are several others from the sire of the great King Segis as high as 24 lbs. for three-year-olds these youngsters are also Avondale Pontiac Echo recently by a representative sire they are choice, and include promising herd sire material. Even that Mr. Burnaby was fortunate when he contracted for the services of Avondale Pontiac Echo by his three years in service has left a great impression on him of replacing him with one that will be sufficiently strong in mating with his daughters to be no easy task for the future at "Highland Lake." Mr. Burnaby finds the demand for good stuff, especially in bulls, is increasing. Following are a few of the important sales made recently: Avondale Pontiac Echo, Thamesford. The two calves of this calf average 869 lbs. at 12 months or 131 lbs. for one day. Topsy, of Orangeville, took 12 months bull, his dam Topsy Clothilda, Canada's champion. Thos. A. Barron, of Orangeville, sold a 12 months son of this the 33-lb.-bred son of W. J. Blanchard of Cornville, a 6-month youngster with his pedigree carrying a record. Trade in females is fair, orders having come from outside provinces during the month. N. J. Jarvis and New Brunswick breeders purchased two heifers each. Third order Mr. Burnaby placed with from Mr. Jarvis.

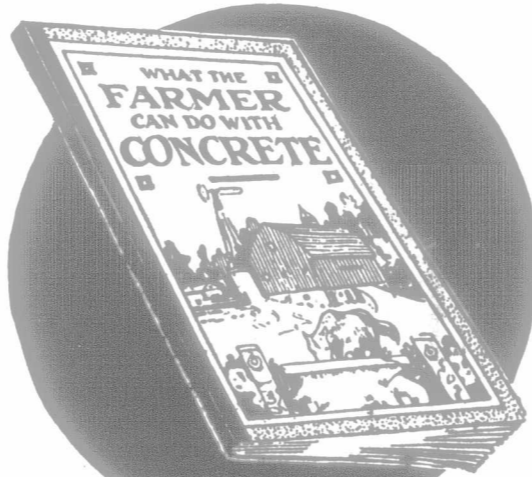


Nowhere on the farm is the use of Concrete more vital than in the Cow-barn

IN concrete you will find your greatest aid to successful dairying. Warm, dry and sanitary surroundings are essential to the health of the cows—and healthy cows are the first requisite in a dairy farm—for on the health of the animals must depend the flow of milk.

So it is not remarkable to find our Canadian farmers rapidly replacing such wooden barn interiors as still exist, with concrete floors and mangers and modern stalls.

Concrete—now rightly given first place among available materials for all sorts of farm construction—is absolutely essential to a barn interior.



Get this Free Book. It contains nearly a hundred pages—every page of real interest, every chapter of practical help to the farmer.

CONCRETE is the *only* material affording proper sanitation and cleanliness—the only one that can be easily and thoroughly cleaned.

In the book entitled "What the Farmer can do with Concrete," a section is devoted to floors and mangers.

Get the book—and, if you still have wooden floors in your cow barn, make that your first test of the wonderful things concrete will do to improve your farm. Lay a concrete floor, and have your dairy premises as neat, clean and odorless as you know they ought to be—premises so easily kept clean, that much labor will be saved and greater profit thereby ensured.

ALMOST anything you wish to build of concrete can be built by yourself, in your spare time. The directions given in our Free Book are simple and easy to follow. The materials it calls for are handy—sand and gravel which you have at hand, and "Canada Cement" which is sold by dealers everywhere.

Begin now to replace your temporary buildings with concrete buildings.

Such improvements as you can easily make of concrete will add materially to the value of your property. Moreover, you will be able to *work* your farm with less effort, and with greater profits when your temporary buildings have given place to buildings and utilities of the finer concrete type.

CANADA CEMENT COMPANY LIMITED

801 Herald Building Montreal

Sales Offices at MONTREAL TORONTO WINNIPEG CALGARY

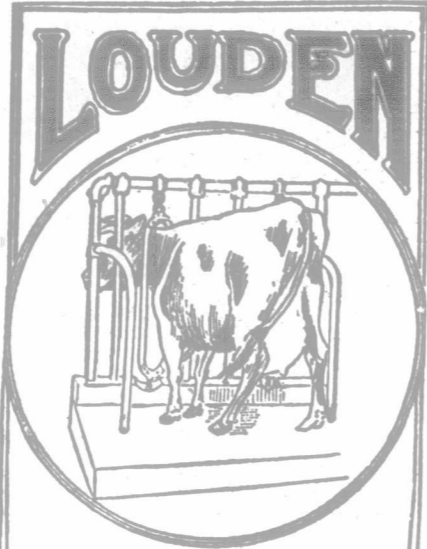
"Canada" Cement can be secured from over 2000 dealers in nearly every city, town and village in Canada.

**CANADA CEMENT
 CONCRETE
 FOR PERMANENCE**

If you cannot locate a convenient Dealer, write our nearest Sales Office.

Send me your Literature

Name _____
 Address _____



A contented cow is a profitable cow.

—Are Your Cows Contented? Are They Profitable?

If not make them so by doing away with your old time wooden stalls. They gather dirt, waste feed, harbor disease germs—and prevent the free circulation of germ killing and life giving air and sunlight.

LOUDENS

PERFECT Steel stable equipment is easily and quickly installed—insures cleanliness and ventilation—means more comfort for your cows—less work—more profits for you.

Get Interested Write To-day

Our 112 page Barn Plan Book is free—not a catalog—shows 74 barns with floor plans—estimated costs—instructions on concrete barn work—barn drainage—ventilation—lighting—strength of materials—framing—roof construction.

If you expect to build or remodel write for it, also our catalogues—will save you worry—time—money.

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I keep..... Cows,.....Horses,

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Red Clover. 72 Oats and Beans

Red Clover No. 1, Gov. Standard, \$29.00 per bus. Club orders of 5 bus. or more, \$28.00 per bus. O. A.C. No. 72 oats free from noxious weed seeds, and true to variety \$1.00 per bus. Peares Improved Tree Beans \$6.00 per bus. Bags free. Prices F.O.B. Alliston. Write for samples. Satisfaction guaranteed regarding orders or money refunded.

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Special attention given to patent litigation.
Pamphlet sent free on application.

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156 Yonge Street, Toronto, Ontario.

Recommendation Presented at Poultry Conference.

At the poultry conference held in Ottawa on February 18 and 19, a number of recommendations were drafted to be presented to the Government. These recommendations dealt with matters affecting poultry diseases, boys and girls' clubs, record of performance work, etc. A full report of the meeting appeared in last week's issue of The Farmer's Advocate, and in this issue we give the recommendations as submitted to the meeting by the various committees.

Early in the Conference thirteen committees were appointed to bring in recommendations respecting various aspects of the industry. These committees reported on Thursday and part of the recommendations finally made by the conference as a whole are given below. Discussion on the reports of these committees lasted nearly all day.

National Poultry Council.

"1. That the Provincial Associations be formed into a Canadian Poultry Association to be known as 'The National Poultry Council' with the object to stimulate, encourage and develop: (a) The Co-operation of all Poultry Breeders; (b) The Production of all Poultry Products; (c) The obtaining of Markets; (d) The encouragement of Exportation; (e) The dissemination of practical information concerning the Industry. And all other matters conducive to the advancement of the Poultry Industry.

"2. That the Provinces, not now organized shall without delay form Provincial Associations embracing all local Poultry Associations and organizations in their Province.

"3. That the Council shall have power to embrace and to give representation to other National organizations formed to encourage the objects of this Association.

"4. That the Council shall consist of one member from each Province.

"5. That the Council shall be governed by a President, two vice-presidents, one from Manitoba and West and one from Ontario and East elected from the members of the council in annual convention. A Secretary-Treasurer, or both, shall also be appointed at the annual meeting.

"6. That this Conference shall appoint forthwith a provisional council to hold office until the respective Provincial Association have elected their special representatives or until the next annual meeting to be held by and at the expense of the Federal Department of Agriculture; and that such council shall elect and appoint the Provincial Officers of the Association.

"7. That we further recommend that this conference request the Federal Government to appropriate the sum of \$1000.00 for the organization expenses of this association.

"8. That the Provincial Officers shall prepare and submit to the next annual meeting, a draft constitution and working by-laws for this Association.

"9. That the association recognized by the Provincial Department be the association represented. That the Dominion Poultry Husbandman and the Chief of the Poultry Division of the Live Stock Branch be the representatives from the Federal Department on the committee on the establishment of Record of Performance and that the Dominion Poultry Husbandman as chairman of the committee, take up with the various provinces the question of the provincial representative."

The provisional members and officers of the National Poultry Council are as follows: Prince Edward Island, Dr. P. C. Gauthier, Eastern Vice-President; Nova Scotia, ———, Hull; New Brunswick, A. C. McCulloch; Quebec, A. P. Hillhouse; Ontario, Dr. R. K. Barnes; President; Manitoba, N. W. Kerr, Western Vice-President; Saskatchewan, H. M. Arnaud; Alberta, C. M. Baker, British Columbia, H. E. Waby; Sec'y-Treas, E. Rhoades.



The Savings Bank Pays 4%

A savings bank account is a splendid thing, but if you own cows and have no silo you will find that a few dollars invested in a good silo will bring you very much greater returns than the same amount put into the bank. The average savings bank pays 3½ or 4%

An IDEAL GREEN FEED SILO will pay 100%

A prominent dairy authority says that a silo is worth its entire cost if it is used for only one year. The life of an IDEAL SILO is from twenty to thirty years. Is it any wonder farmers are finding the Silo profitable?

Practically one-third of the feeding value of your corn crop is lost when fodder is allowed to dry. An IDEAL will not only save all the nutritive elements of the fresh, green corn, but will convert into rich, juicy, milk-producing feed corn stalks that cattle can not otherwise eat up clean. It reduces feed bills; means more milk, healthier cattle and less labor in feeding.

Write today for a catalogue. It shows you every detail of the IDEAL and explains just why you get in it more for your money than in any other silo.

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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 Butterworkers. Catalogues of any of our lines mailed upon request.

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50,000 Branches and Local Agencies the World Over

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CHEAPER THAN A WHIP AND BETTER FOR YOUR HORSES

A horse with bruised, galled and chafed neck or shoulders can't earn his feed. Whipping only increases his suffering. You can prevent such injuries for less than the price of a good whip. Equip your faithful animal with Tapatco—The pad made with our

NEW PATENTED HOOK ATTACHMENT

(Found Only on Pads Made by Us.) Consists of wire staple with felt washer. It gives hook a firmer hold and prevents pulling off, even though fabric is weakened by long usage. Life of pad is thus materially lengthened. This is the greatest improvement since we invented the hook.

STUFFED COLLAR PADS
Filled with our Special Composite Stuffing are better than other kinds. They are soft, springy, absorbent and serve as a guarantee against bruised, galled and chafed shoulders.

THIRTY-SEVEN YEARS MAKING PADS
Look for the Felt Washer
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NORTHERN ONTARIO

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

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

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

Record of Performance.

"1. We would strongly recommend the establishment of Records of Performance and that a committee be appointed made up of two officers from the Federal Department of Agriculture and one from each province that is at present—or may later become engaged in stock improvement work; this committee to have charge of the details and make all arrangements for the carrying out of the work.

"2. We further recommend that Seasonable Culling Demonstration be carried on; that flocks of Standard-bred birds after such culling be used as breeding flocks; that the culling of flocks be done in June, July or August and if this is impossible during the months of Feb. or March.

"3. The establishment, on request of producers, of hatcheries.

"4. That all Poultry Associations holding shows be encouraged to place in their prize lists classes for both egg and meat production and that until such time as the official Records of Performance be established for two years, the classes shall be judged according to the standards for egg or meat type or eggs and meat type together with standard requirements, and after such date the class for layers be limited to birds registered in the official records of performance or to their immediate offspring,—and that they be judged according to the American Standard of perfection. And that the Federal Government supply funds for payment of prizes in such classes.

"5. The sale and distribution through breeding stations of hatching eggs from culled standard-bred flocks.

"6. That laying contests be encouraged local, provincial, federal, international for both long and short periods and that the Federal and Provincial Governments supply funds to provide for the carrying on of such."

International Conference.

"In consideration of the probable development of the Export of Poultry Products and the necessity of developing this on a sound basis and, further, that there is to be held in London, England, a meeting of the International Instructors and Investigators Association on March 10th, 1919, we strongly urge that two representatives from Canada be sent; we would suggest W. A. Brown and F. C. Elford."

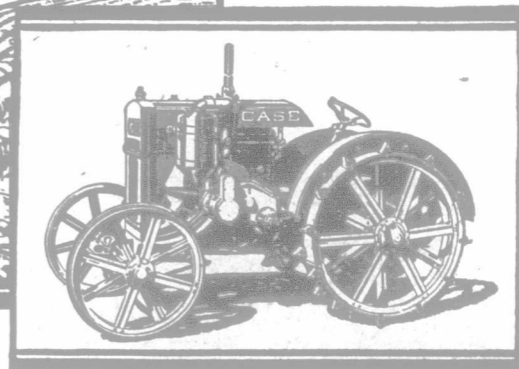
In regard to the export market, it was deemed advisable to petition the Minister of Agriculture to immediately appoint a representative in Great Britain, thoroughly familiar with eggs and poultry, to look after the interests of the Canadian egg and poultry industry on that and possible European markets. The Minister of Agriculture was also petitioned to arrange for the issuing of the Markets Intelligence Report in such a manner that the information be received simultaneously at the more important distributing and producing centres. The extension of the work of the co-operative marketing association wherever possible in districts which are not at present organized on a co-operative basis was considered advisable.

Recommended Legislation.

"That all shelled eggs imported into Canada be inspected in accordance with the Canadian Standards for eggs. That standards be prepared for the inspection of all egg products not in the shell. That all products advertised as Egg Substitutes may not have the privilege of using the word 'Egg.' We believe that there is no substitute for 'Eggs.' That no person, firm, corporation or association, shall receive or demand payment for bad eggs, and as far as possible eggs shall be paid for on a quality basis. That government inspectors place a grade identification mark on the egg case of the eggs inspected as well as giving a certificate of grading. That egg buyers should be urged to make use of the inspector when country shipments show a heavy shrinkage and that the inspectors be authorized to make suggestions over his own name the shipper that will assist the shipper in improving the quality of 'Canadian Eggs.' That government inspectors as many as are required be placed permanently in each province to give instruction in the handling of eggs and poultry."

Poultry Diseases.

"That we petition the Federal Government to appoint a Poultry Pathologist at Ottawa, where all facilities already exist,



How Much Does It Cost to Plow an Acre?

Do you want to know how much it will cost you an acre to plow with a Case 10-18?

Here are the facts. You can figure the cost exactly in your community, based on the current price of kerosene.

A Case 10-18, under official tests, required 1 3-5 gallons of kerosene per acre, pulling two 14-inch plows 5 1-3 inches deep. The water used amounted to 1/4 gallon. The soil was hard gumbo stubble, loose on the surface. The average drawbar pull was 1,015 pounds.

The plowing was done at the rate of 1 1-10 acres per hour.

These figures are authorized and certified by the official Board of Tests of the National Tractor Show. It is also interesting to know that in this test the average drawbar horsepower required was 9.14. The Case 10-18 is capable of delivering as high as 14 horsepower on the drawbar, which proves that it has ample reserve for the most difficult jobs. In fact, we consider it the most practical and durable two-plow tractor built. Its belt power also exceeds its rating. It will deliver as high as 24 horsepower for belt work.

Note all the superiorities of this super-tractor, shown at the right. They represent the latest and best, and all of them can be obtained only in this Case 10-18.

Write for detailed specifications and illustrations, so that you may use this tractor as a guide in making comparisons. For it sets the standards.

J. I. Case Threshing Machine Company, Inc.

(Founded 1842)

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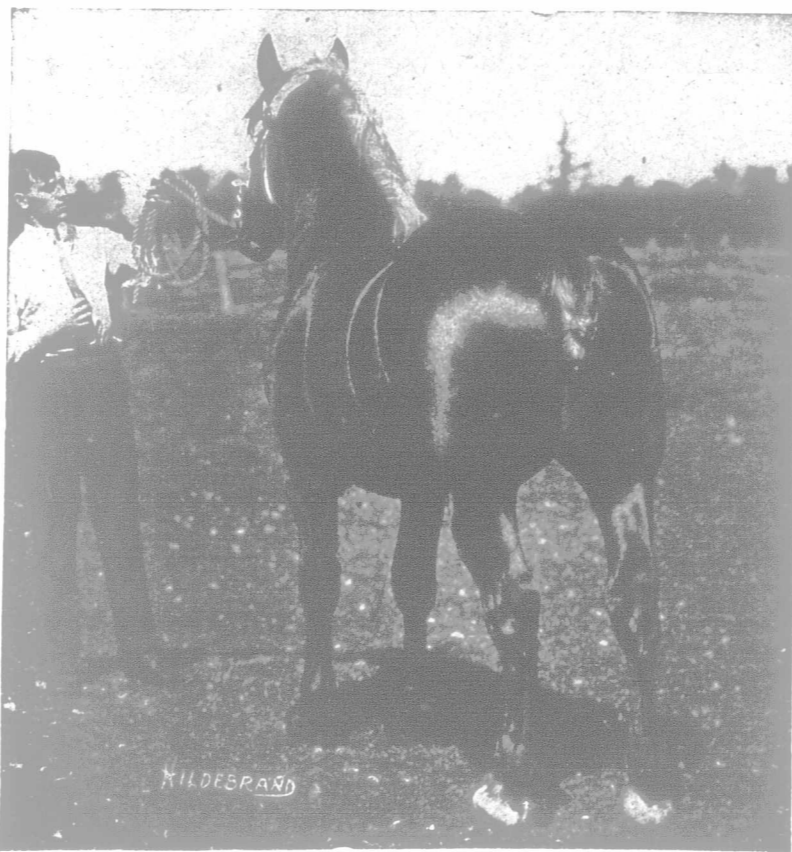


OTTAWA
Ontario

ST. JOHNS
New Brunswick

Features of the Case 10-18

- 1 Weighs only 3,400 pounds, little more than a team of horses. Low and compact with short wheelbase. Turns in 22 ft. circle. Stays on all fours.
- 2 Rated 10 horsepower on drawbar, but develops nearly 14 horsepower. Rated 18 horsepower on the belt but delivers about 24 horsepower. This insures abundant reserve power.
- 3 Four-cylinder Case valve-in-head motor. Removable head. Motor is set crosswise on frame, affording use of all straight spur gears. This conserves power.
- 4 One-piece cast main frame, forming dustproof housing for rear axle, bull pinion shaft, transmission and the bearings for these parts. Also a base for motor. This construction brings rigidity and prevents disalignment.
- 5 Belt pulley mounted on the engine crank shaft. No gears used to drive it. Pulley is part of the tractor, not an extra-cost accessory.
- 6 All traction gears are cut steel, enclosed and running in oil. No bevel gears, chain, worm or friction drive parts.
- 7 Case Siphon Thermostat controls cooling system and insures complete combustion of kerosene in the motor. Prevents raw fuel from passing by pistons and diluting oil in crank case.
- 8 Case air washer delivers clean air to carburetor. No grit nor dust gets into cylinders to minimize their efficiency and shorten their life.
- 9 All interior motor parts lubricated by a combination pump and splash system. Speed governor, fan drive and magneto are dustproof and well oiled.
- 10 Complete accessibility. No dismantling necessary. Removable covers permit you to get at parts quickly.
- 11 Hyatt roller bearings in rear axle, bull pinion shaft and transmission case. Kingston ignition and carburetor. Five-piece radiator with a cast frame. Core, fin and copper tube, non-clogging type.



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**NEW IMPORTATIONS
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Ton stallions four, five and six years old. Mares weighing up to 1800 lbs.

Everyone backed by the Hodgkinson & Tisdale Guarantee.

We have these horses priced to sell quick.

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A WHIP ... HORSES



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... ertile country, and are being ... tario, a home awaits you. ... tes, write to:

... Buildings, Toronto, Ont. ... ts and Mines

You Sit Where You Always Sat On the Seat of the Implement



YOU wouldn't think of riding on the back of one of your horses while at work in order to guide your team. If you did you would require another person to operate the implement, because implements require constant attention.

Then why attempt to operate a tractor in a manner which your experience has proven impractical? It is just as illogical to ride on a tractor in front of the implement and expect to operate the implement from that position as it is to operate the implement from the back of your horse.

Any way you look at it you are working at a disadvantage with the ordinary tractor. To do the best work two operators are required, one on the tractor and one on the implement. In these days of extreme labor shortage this is a tremendous handicap. With the operator on a tractor in front of the implement it is manifestly impossible for him to give the implement attention and make adjustments for varying field conditions without losing time.

Just Like Driving Horses

With the Moline-Universal Tractor you sit on the seat of the implement and have perfect control of both implement and tractor. You are in the best position to observe the work, make adjustments and manipulate both tractor and implement. This holds true regardless of the work being done—plowing, disc-

ing, harrowing, planting, cultivating, mowing, harvesting, both grain and corn.

A Time Tried Principle

There is nothing new about this, we simply apply a principle which millions of farmers have demonstrated to be sound. The Moline-Universal gives one man control of greater power than is possible with horses, with the same method of handling and as much versatility. With the Moline-Universal one man can farm more land. It is a six-horse unit—easier to control than one horse and capable of doing the work of from 6 to 8 horses.

Works Day and Night

The One-Man feature is just one of many advantages the Moline-Universal has over other tractors. It is the only tractor which will do all farm work, including cultivating. It is the only tractor regularly equipped with self starter and electric lights. Non-robust labor can operate the Moline-Universal successfully, and it can be worked day and night.

No detail has been overlooked to give the new Moline-Universal Model D Tractor positive reliability. The perfected, overhead-valve 4-cylinder engine develops

unusual power, and is economical in operation. It is conservatively rated at 9-18 H.P. Oil is forced to crankshaft bearings under 35 lbs. pressure. Gears are steel cut, drop forged, and heat treated. All shafts are splined. Every working part is easy to get at, and every moving part is enclosed.

Valuable Information for You

Our catalog tells how you can operate your farm with less help and expense by using a Moline-Universal Tractor. A post card will bring the catalog to you.

Since 1865 we have been making farm machinery, and now offer a complete line of both tractor and horse drawn implements. Information on any of the Moline implements listed below will be gladly furnished on request.

Address Dept. F
Canadian Distributors:
Willys - Overland, Limited
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A Real Oil Engine 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 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 Farmer's Friend. Get circulars and price of size you are interested in.

Henry P. Hoag & Co.
BRANTFORD ONTARIO

Qualify for a Better Position

by spare time study; we teach you; beginner's course, commercial, stenography, matriculation, civil service, teachers' courses, engineering (stationery, automobile, tractor), special English, architectural or mechanical drawing. Write Canadian Correspondence College, Limited, Dept. E, Toronto, Canada.

PEERLESS PERFECTION

PEERLESS FENCE

Strong enough to keep your own live stock where they belong and your neighbor's out. The best way to hold neighborly friendships is to fence to prevent trespassing. This fence "locks the bars," "stays put." Made of Open Hearth steel wire—heavily galvanized.

in such a thorough manner that it will not flake, chip or peel off. The wires are tough, elastic and springy and will not snap or break under sudden shocks or quick atmospheric changes. The joints are securely held with the "Peerless Lock," which will successfully withstand shocks and strains and get it can be erected on the most hilly and uneven ground without buckling, snapping or kinking. We also build a full line of poultry fence, ornamental fence and gates. Write for our literature. Valuable information on fence construction.

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

and that such official be a member of the Federal Department of Agriculture. It is also suggested that we ask the Vet. Inspector-General to arrange for the inspection of live poultry imported into the Province of British Columbia such inspection to be made by the Dom. Vet. stationed at point of entry. The committee recommends that all associations holding poultry shows or arranging for exhibits of poultry at fall fairs be asked to arrange for the efficient disinfection of all poultry coops before or after such shows.

Boys' and Girls' Clubs.

"That we recommend the establishment of Boys' and Girls' Poultry Clubs, in each province, on the greatest scale possible consistent with the quality and supply of the eggs or chicks available for the same."

Gossip.

Grandsons of Right Sort.

Shorthorn breeders who are looking for a new herd sire will do well to write for particulars regarding the offering advertised elsewhere in this issue by W. G. Gerrie of Belwood, Ont. The six bulls of servicable age now offered by Mr. Gerrie are all sired by that noted son of Right Sort (imp.), Escanna Favorite. This bull it will be remembered went to the Hon. Duncan Marshall of Alberta, last year at a long price and he get have the substance and character one would expect to follow such noted well-breeding sires. There are also six younger bulls in the offering that are sired by Escanna Favorite. These bulls have all been raised on the farm and in nearly every instance their dams are still in the herds. These cows represent several of the fashionable present day families but a large percentage are got by the noted sire of winners, Stamford Hero. Appearing as he does on the top of such pedigrees as Clarets, Matchless, Rosebuds, Orangeblossoms, English Lady, Broadhooks, etc., breeders who follow this breeding would expect results and from a recent inspection we can promise them that in this offspring they will not be disappointed. For full particulars address W. G. Gerrie, Belwood, Ontario.

Holsteins at Ingersoll March 20.

Holstein breeders will do well to keep in mind the important auction to be held at Firth Farm near Ingersoll, Ont., on Thursday, March 20. The sale is made up with drafts from the Firth Farm herd owned by W. B. Poole and the Bellevue Farm herd owned by Alfred Groves of Salford. Mr. Poole's entries number 16 head, which includes 7 two-year-old daughters of Colantha Fayne Butler Barron, a son of Grace Fayne 2nd, Sir Colantha and Queen Butter Baroness, Canada's first 33-lb. cow. These heifers are a choice lot throughout and all will be freshening just before or after the sale to the service of the present herd sire, King Johanna Rauwerd. This bull is sired by Hill-Crest Ormsby Count, a son of Canada's first 29,000-lb. cow and his dam is Calamity Johanna Nig, Canada's first 25,000-lb. R. O. P. cow. The heifer calves from these heifers that arrive before sale day will be retained. The other nine females in Mr. Poole's offering are young cows and they too, are now in full flow of milk or will be freshening shortly after sale day.

The Bellevue consignment includes 14 cows of milking age the majority of which are now fresh. Seven of these are mature cows and seven two-year-old heifers. All were bred in the herd and all are granddaughters of Prince Abberkerk Mercena and King Lyons Hengerfeld. They furnish an excellent opportunity of getting a select lot of breeding females which should pay back a large percentage of the purchase price before the close of the present season. They are all bred again to the Bellevue herd sire Captain Snow Canary Hartog. This bull is a three-year-old son of Calamity Snow Mechthilde the present champion R. O. P. three-year-old and his sire is Canary Hartog, a grandson of Royalton De Kol Violet, that great 29,000-lb. 12-year-old A. R. O. cow. This bull should add greatly to the worth of the offering individually as well as raising the average considerable of the cows on which he has been bred. All requests for catalogues should be addressed to W. B. Poole, Firth Farm, R. R. No. 5, Ingersoll, Ont.

Questions

1st—Question to "The Farmer's Advocate" department.
2nd—Question plainly written and must be addressed to the editor.
3rd—in v especially in wise satisfaction.
4th—When veterinary enclosed.

I am feeding, 1. gravelly cultivation preparing should the it be sown 2. What to sow to l is the seed

Ans.—1. the soil in preparation anyway possible. For J sown early would get rows on the the seed to the sp and pluggi From 2 to sufficient w apart; if s of seed w advantage permits of helps the ra 2. The with another It may be and can be If sowing June, Hun variety of to give the

My flock very well u them became Six others with heads They have appear all dry mash l the morning oats and b and at night The birds h and skim-matter with Am I feeding

Ans.—Yo what the condition a by the use mash. As is concerned would cause is occasional ventilation coming mud house cond case the bi more or less advise giving salts; give each and the hundred bir in water an every ten da straw on the

Choice Bull

Attention offering in vertised else Thos. J. Mc Copetown, is one of t known herds selecting bu stables will demand. O at present all dams and si herd sire McCormick they have e offering them them out fas ing in female guaranteed t

such official be a member of the Department of Agriculture. It suggested that we ask the Vet. General to arrange for the import of live poultry imported into the province of British Columbia such to be made by the Dom. Vet. at point of entry. The commends that all associations poultry shows or arranging for of poultry at fall fairs be asked for the efficient disinfection poultry coops before or after such

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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.

Rape—Millet.

I am desirous of sowing, for July feeding, 1½ acres of rape. The land is gravelly loam and in a good state of cultivation. What is the best method of preparing this field for rape? What time should the seed be sown, and how should it be sown?
2. What is the best kind of millet to sow to be cut and cured for hay? How is the seed sown?
A. F.
Ans.—1. Thorough cultivation to put the soil in good tilth is about all the preparation necessary. If the soil were anyway poor, manure might be cultivated in. For July feeding, the seed should be sown early in May and we believe you would get the best crop by sowing in rows on the level. This may be done with the seed drill by attaching the tubes to the spouts of the grass-seed box, and plugging the spouts you do not use. From 2 to 2½ lbs. of seed per acre is sufficient when sowing in drills 28 inches apart; if sowing broadcast, 8 or 9 lbs. of seed would be necessary. One big advantage of sowing in rows is that it permits of cultivation which materially helps the rape and cleans the soil.
2. The Japanese Pannacle one year with another gives the best yield of hay. It may be sown around the first of June, and can be drilled in or sown broadcast. If sowing much later than the first of June, Hungarian Grass, which is a variety of millet, will possibly be found to give the most satisfactory results.

Ration For Hens.

My flock of thirty-six hens was doing very well until a week ago, when one of them became sick and died in a short time. Six others sickened and moped around, with heads drawn close to their bodies. They have no appetite; otherwise they appear all right. The ration consists of dry mash before them all the time. In the morning 3½ quarts of mixed wheat, oats and barley; at noon, a wet mash and at night 3 quarts of the grain mixture. The birds have plenty of green feed, and and skim-milk to drink. What is the matter with them and what is a remedy? Am I feeding them a proper ration?
M. A.

Ans.—Your correspondent does not say what the dry mash consists of. Such condition as described may be caused by the use of too much salt in the dry mash. As far as the feed mentioned is concerned there is nothing in it which would cause the trouble. Such a condition is occasionally brought on by the lack of ventilation in the house, the litter becoming musty or damp, and the general house condition being damp, in which case the birds would probably develop more or less cold. In any event I would advise giving the birds a good dose of salts; give the sick ones a teaspoonful each and the well ones one pound to one hundred birds. You could dissolve this in water and mix in a mash. Give this every ten days. Clean the house and the straw on the floor dry.
W. R. G.

Gossip.

Choice Bulls in the Glencairn Herd.

Attention is here directed to the special offering in young Ayrshire bulls advertised elsewhere in these columns by Thos. J. McCormick of Glencairn Farm, Copetown, Ont. The Glencairn herd is one of the oldest and most widely known herds in the province and breeders selecting bulls or females from these stables will find their offering in good demand. Of the several bulls offered at present all are from good record R. O. P. dams and sired by the noted Glencairn herd sire Springhill Admiral. Mr. McCormick states that as individuals they compare favorably with the best they have ever bred and also that he is offering them at prices that should move them out fast. There is the usual offering in females and like the bulls they are guaranteed to please.

SHERWIN-WILLIAMS INSECTICIDES

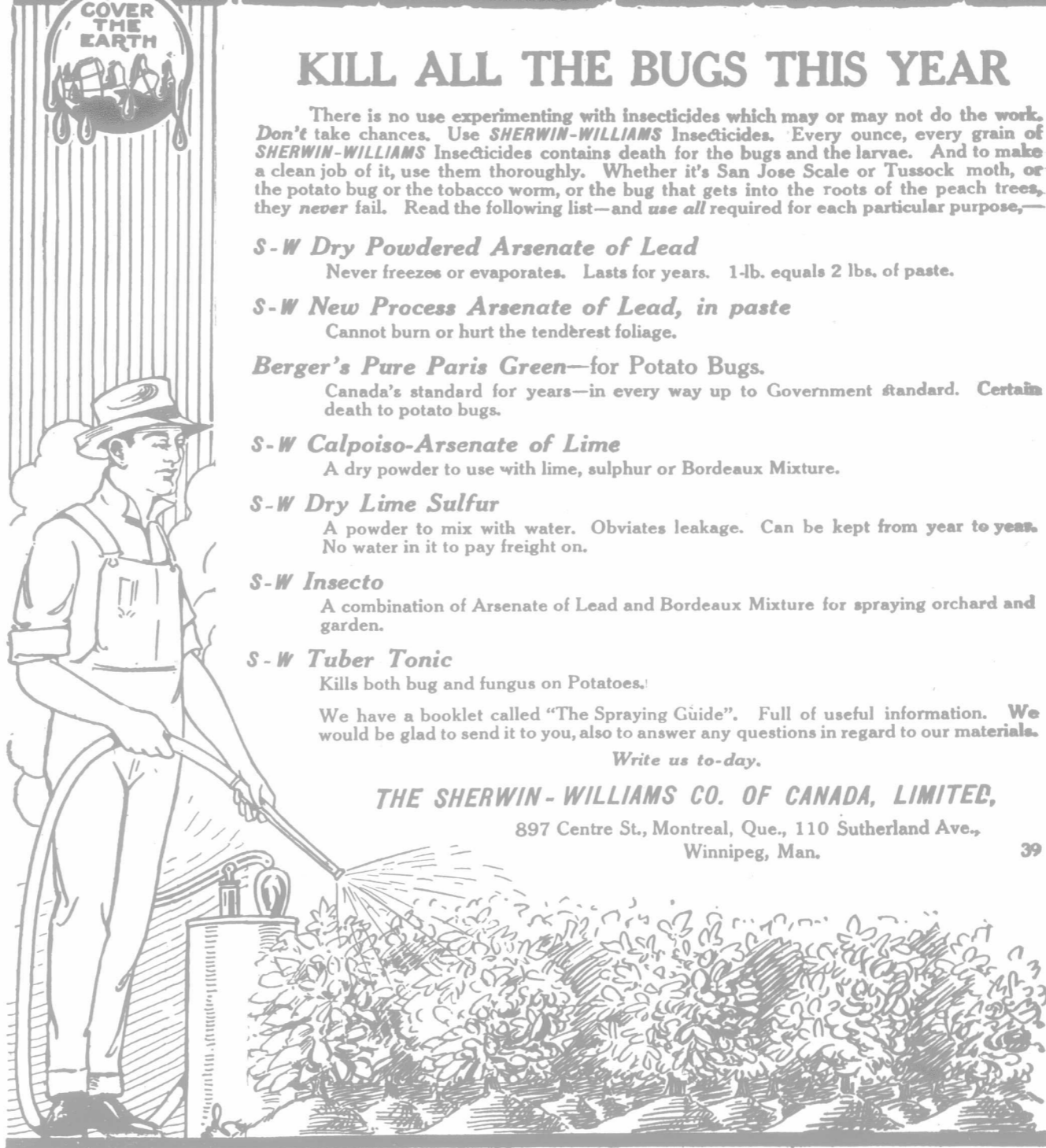


KILL ALL THE BUGS THIS YEAR

There is no use experimenting with insecticides which may or may not do the work. Don't take chances. Use SHERWIN-WILLIAMS Insecticides. Every ounce, every grain of SHERWIN-WILLIAMS Insecticides contains death for the bugs and the larvae. And to make a clean job of it, use them thoroughly. Whether it's San Jose Scale or Tussock moth, or the potato bug or the tobacco worm, or the bug that gets into the roots of the peach trees, they never fail. Read the following list—and use all required for each particular purpose,—

- S-W Dry Powdered Arsenate of Lead**
Never freezes or evaporates. Lasts for years. 1-lb. equals 2 lbs. of paste.
- S-W New Process Arsenate of Lead, in paste**
Cannot burn or hurt the tenderest foliage.
- Berger's Pure Paris Green—for Potato Bugs.**
Canada's standard for years—in every way up to Government standard. Certain death to potato bugs.
- S-W Calpoiso-Arsenate of Lime**
A dry powder to use with lime, sulphur or Bordeaux Mixture.
- S-W Dry Lime Sulfur**
A powder to mix with water. Obviates leakage. Can be kept from year to year. No water in it to pay freight on.
- S-W Insecto**
A combination of Arsenate of Lead and Bordeaux Mixture for spraying orchard and garden.
- S-W Tuber Tonic**
Kills both bug and fungus on Potatoes.
We have a booklet called "The Spraying Guide". Full of useful information. We would be glad to send it to you, also to answer any questions in regard to our materials.
Write us to-day.

THE SHERWIN-WILLIAMS CO. OF CANADA, LIMITED,
897 Centre St., Montreal, Que., 110 Sutherland Ave.,
Winnipeg, Man.



For Quick Growth and Early Maturity, Feed GARDINER'S CALF MEAL

It replaces perfectly the cream in skim milk, and provides the nourishment necessary for quick, vigorous growth. It is rich in protein, and several points higher in fat than any other meal on the market.
Feed Gardiner's Calf Meal first with skim milk, then with milk-and-water, and finally with water only, and your breeding calves will mature earlier and your young steers will be ready for market sooner. It is equally good for colts, lambs and little pigs.
Put up in 25, 50 and 100-lb. bags. If your dealer doesn't handle it, write us for prices, and for information about Gardiner's other products—Ovatum, Pig Meal, Sao-a-fat and Cotton Seed Meal.



GARDINER BROS., Feed Specialists, SARNIA, Ont. 15

FIELD TILE

If considering draining your farm or orchard, we can supply all sizes, best quality Hard Burned Clay Tile, and will guarantee prompt shipment. Write for prices.

NATCO IMPERISHABLE SILO

Don't consider purchasing a Silo until you let us tell you about the Silo which lasts for generations.

NATIONAL FIRE PROOFING COMPANY OF CANADA, LIMITED
Agricultural Dept., Dominion Bank Bldg. TORONTO

SEEDS

We pay the freight on all orders of \$25.00 or over east of Manitoba.
GOVERNMENT STANDARD

	Per bus.
No. 1 Red Clover.....	\$27.00
No. 2 Red Clover.....	25.00
No. 1 Alsike.....	21.00
No. 1 Alsike (Special).....	19.00
No. 2 Timothy, No. 1 for purity.....	6.50
No. 3 Timothy.....	5.75
No. 1 Alfalfa (Northern Grown).....	17.00
White Blossom Sweet Clover.....	13.00
Mixed Timothy and Alsike, \$10.50 per bus. of 60 lbs.	

Terms: Cash with order. Bags extra, at 65c. each. Ask for samples if necessary. We guarantee seeds satisfactory or return at our expense.

TODD & COOK
Seed Merchants
Stouffville Ontario

Haldimand Grown Alfalfa Seed

for sale of both the Variegated and Grimm varieties. Send for prices and samples.
Grand River Alfalfa Seed Centre
Ross Martindale, Sec., Caledonia, Ontario
R.R. No. 3

GLADIOLI BULBS
Descriptive price list of summer's showiest flowers.
G. W. J. Bridger, Box 125, Sarnia, Ont.

SEEDS

Satisfaction Assured

CLOVER & TIMOTHY

No. 1—G.S. \$28.00
No. 2—(No. 1 for Purity).... 26.00

SEED CORN

(Ont. grown from Ont. grown)
\$3.50 on cob—Winconsin, Golden Glow, Improved Leeming, etc. Jute bags free

ALSYKE—No. 1—G.S. \$20.00
No. 2—G.S. 18.00

MANGELS—65c. per lb.
ALFALFA—Home grown—No. 1 purity.....\$26.00
TURNIPS—\$1.50 per lb.

FEEDS

If you require anything in the feed line, whether for your live stock or poultry, write us. We can usually save you money.

CRAMPSEY & KELLEY
DOVERCOURT ROAD, - TORONTO



For Distemper, Coughs, Colds, Fever

Pinkeye, Sunstroke and any other lung or throat troubles in horses, the one certain remedy is

DR. A. C. DANIEL'S Distemper Cure

Cough, Cold, and Fever Drops

Also a perfect cure for Milk Fever in cows, and Hog Cholera in Swine. Big circus organizations in the U. S. and a majority of the big stables both in Canada and the U. S. use this remedy to the exclusion of all others for such ailments as above mentioned. Be prepared—the best life insurance for your horses is the remedy that saves life and maintains condition. It cures without leaving any aftermath. Every packet warranted satisfactory or money refunded.

Try it—Price 60c. and \$1.25

10c. extra for mailing, but if you will send us your dealer's name when ordering we will pay postage. Big Book FREE, all about treatment of sick animals.

DR. A. C. DANIELS CO., LIMITED
Knowlton, P. O.

PATENT YOUR INVENTIONS

Send direct to Ottawa for free patentability report and booklet "Patent Protection". Clients' patents advertised in the "Patent Review".

Harold C. Shipman & Co., PATENT ATTORNEYS
CENTRAL BUILDING, OTTAWA, CANADA.

Before Spring Work

Best time to clip is in the spring, when coat is heavy and animal is soft. Short hair means healthier pores and prevents sickness. A horse kept in good condition in the spring stands better chance of remaining healthy all year. The best way to clip is with a Stewart, No. 1 Ball Bearing Machine. If dealer can't supply you send us his name. Write for catalogue.

CHICAGO FLEXIBLE SHAFT COMPANY
Dept. A 161, 12th St. and Central Ave., Chicago, Ill.

MESSRS. A. J. HICKMAN & CO.

Halse Grange, Brackley, England (late of Egerton, Kent)

Exporters of all breeds of stock, draft horses, beef cattle and show and field sheep are specialties. You can buy imported stock through us cheaper than in any other way, and we hope to get your enquiry at once, so that we can fit you out before this country is skinned of good stock, as it soon will be now the war is over.

Dr. Bell's Veterinary Medical Wonder, 10,000 \$1.00 bottles FREE to horsemen who give the Wonder a trial. Guaranteed for Colic, Inflammation of Lungs, Bowels, Kidneys, Fevers and distempers, etc. Send 25c. for mailing, packing, etc. Agents wanted. Write address plainly.

DR. BELL, V.S. Kingston, Ontario

CLYDESDALES For Sale

3 Stallions—1 yearling, 1 two-year-old, 1 four-year-old, 6 mares—2 year old and up, 1 pair coming 3 and 4 matched, 2 in foal. Most of them out of imported mares. Granddaughters of Barons Pride. A. GORDON, Chatham, R.R. No. 1, Arkwood Sta., C.P.R.

FOR SALE

Team, agricultural colts rising 2 and 3 years prize winners. For particulars apply to

A. Murchison - Woodstock, Ont.

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

Questions and Answers.
Veterinary.

Epithelial Excrecence.

Hanging by a cord like substance from the abdomen of my heifer is a substance about the size of a hens egg, but flatter. It is simply attached to the skin and swings about.

G. A. F.

This is of the nature of a wart. Clip it off close to the skin and dress the raw surface 3 times daily until healed with a 5-per-cent. solution of carbolic acid. V.

String Halt.

Filly had influenza 2 years ago. Since then she has had a hitch in her hind legs. Sometimes she appears all right and at other times she suddenly lifts them upwards and outwards with a jerk.

G. E. C.

Ans.—This is a form of chorea, called "String Halt". Medical treatment is not successful. An operation by a veterinarian which consists in severing, or removing part of a tendon in the hock, effects a cure in a reasonable percentage of cases.

Stiff in One Leg—Excrement Too Dry.

1. Cow has been stiff in one hind leg since last fall. She steps light on that foot and does not seem to put any weight upon the toe. Cannot find anything wrong with the foot.

2. My young cattle have free access to salt and are fed on timothy hay, straw and roots. They seem healthy but their excrement is too dry.

A. P.

Ans.—1. While it is not possible to diagnose definitely without a personal examination, the symptoms given indicate chronic disease of the hip joint. It is not probable that treatment would be effective. All that can be done is allow nature an opportunity to cure, and if no improvement be noticed in a few months it will probably be wise to fit her for the block. As our diagnosis may not be correct it might be profitable to have your veterinarian examine her.

2. There is evidently no disease. Feeding some bran and linseed meal and a larger amount of roots should correct the fault.

Enlarged Glands—Liniment.

1. Some time ago my mare commenced to cough in the stable, and sometimes when she was out. The glands of her throat, one on each side, became enlarged. Sometimes they are larger than at others and they can be moved by manipulation.

2. Give prescription for a good liniment to rub on a horse's throat, one that will not destroy the hair roots.

W. G. E.

Ans.—1. Your mare had an attack of laryngitis, which resulted in enlargement of the thyroid gland. This gland is composed of 2 lobes connected by an isthmus, one lobe on each side. If the gland is still enlarged rub well once daily with an ointment made of 2 drams each of iodine and iodide of potassium mixed with 2 oz. vaseline.

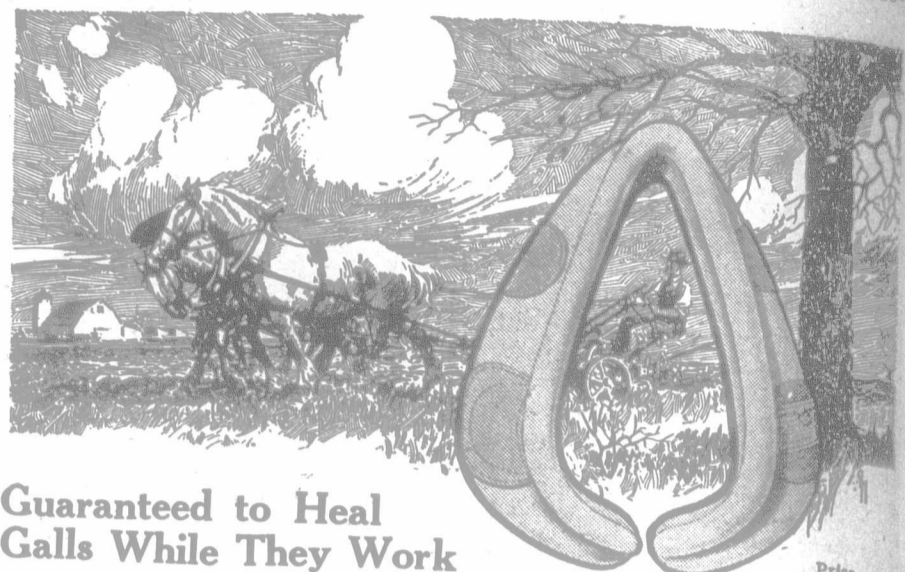
2. One part liquor ammonia fortior and 4 parts each of oil of turpentine and raw linseed oil. If the mare still coughs rub her throat with this twice daily this for 2 or 3 days, and give her 3 times daily until the cough ceases, 2 drams chlorate of potassium and 30 grains of quinine.

V.

Gossip.

In order to make room in the stable for the spring crop of calves which are coming on, a number of cows and heifers on Weldwood Farm are priced for quick sale. Most of these have been bred to Dominator. He is a son of Burnfoot Chieftain, whose dam has a record of 13,535 lbs. milk. His dam, Burnfoot Lady, has a record of 10,681 lbs. milk. His calves are turning out well. The females offered are of the Beauty, Miss Syme and Lily families. Some of the cows have records up to 9,000 lbs. in a lactation, and there are daughters of cows with records of from 7,500 lbs. to 8,000 lbs. If wishing to secure females with good Shorthorn conformation that are good milkers, they can be secured at Weldwood Farm.

There is a nice litter of pigs three weeks of age which are thrifty and doing well. During the month there are four sows to farrow. Orders are being booked for spring pigs. Last fall orders could not all be filled. The sows are all big, deep-bodied individuals.



Guaranteed to Heal Galls While They Work

Sweat and chafing cause galls. Make a horse collar that will absorb sweat—move with the shoulder muscles, instead of chafing against them—and you have a collar that puts an end to galls. That's just what has been accomplished in the

Price \$2.50 Delivered
It absorbs sweat and free from irritation.

Open at the Throat

The open throat makes the Langford conform itself to the shoulders—gives pulling muscles full play—moves with the shoulders, instead of rubbing and chafing against them.

Easy to put on. Will not pack or harden. Cannot sweeney. Often last three or more seasons. Costs one-fourth as much as leather. A collar and pad combined. Try this open-throated cotton collar. Use it on the horse with sorest shoulders. If it fails to heal, return collar and get your money back. If you dealer cannot supply you, send \$2.50, state size, and we will send you a collar, charges prepaid. (6-2c)



Absorbs Sweat

Made of closely woven army duck—stuffed with soft, springy cotton fiber. This fiber

THE POWERS MFG. CO.,
Box 19 Waterloo, Ia.



IMPORTANT DISPERSAL SALE

Senator Robert Beith, Bowmanville

Proprietor of the famous Waverly Stock Farm, has instructed the undersigned to sell by auction, without reserve, at the farm, Bowmanville, Ont., on

Thursday, March 20th

His entire stud of Forty Registered, Imported and Canadian-bred

Clydesdales AND Hackneys

Including the "Highland Agricultural Society" First Prize (Imp.) "Baron's Best" (13980) one of the greatest living, breeding sons of the greatest Clydesdale sire of all, "Baron's Pride." Also some wonderful sons of "Baron's Best". Imported and Canadian-bred mares in foal, colts and fillies from imported sire and dam, etc.

The Hackney stud is headed by the great champion prize-winning stallion, "Terrington Ceteways" (Imp.), also "Mainspring" (721), a great son of "Terrington." Imported, prize-winning mares in foal; also colts and fillies of all ages from all imported stock.

This is a genuine dispersal sale. Every animal will be sold without reserve.

Write for catalogue at once to

Senator Robert Beith, Bowmanville, Ontario

Walter Harland Smith, of the Union Stock Yards, Toronto, will conduct the sale at Bowmanville.

Cairnbrogie Clydesdales

STILL TO THE FORE

Imported and home-bred stallions and mares of the highest quality and individuality. Our record at the leading shows of America surpass all competitors, and we are offering for sale males and females of all ages, and should be pleased to hear from prospective buyers of quality Clydesdales at any time.

For prices and full particulars, write:

GRAHAM BROS., (Cairnbrogie), Claremont, Ont.
Long-distance 'phone. Station, C. P. R.

Clydesdales and Percherons

I have 15 Clyde Stallions, 10 Percheron Stallions and 10 Clydesdales Fillies. The best collection I have ever had at any one time of prize winners and champions, all for sale at prices second to none. A visit to my stables will convince you.

T. H. HASSARD

MARKHAM, ONT.

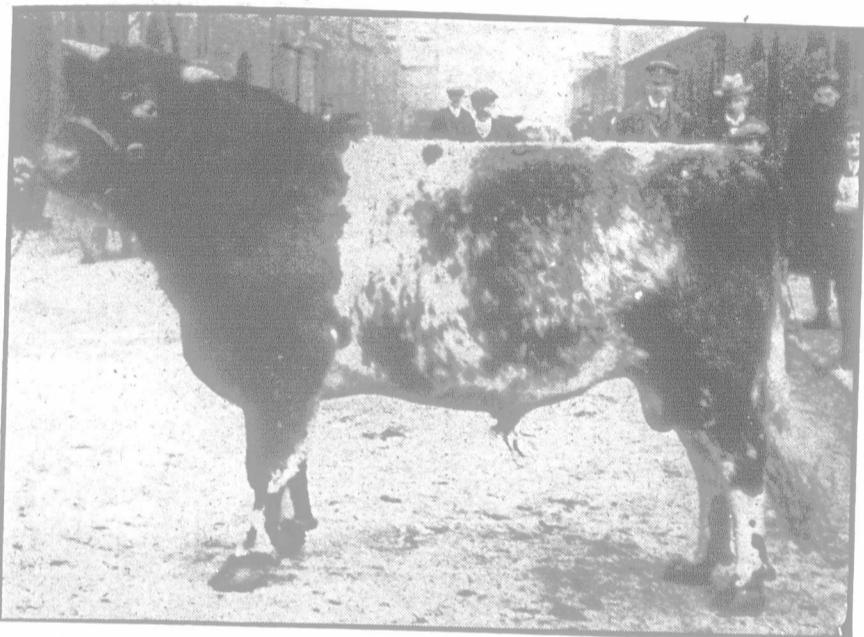
FIRST CALL!

A FIRST-CLASS BILL-OF-FARE IS PRESENTED IN THE OFFERING OF

Western Ontario Shorthorns

AT

London, Wednesday, March 26th



In the bull offering of twenty-six head is listed a number of real herd sire prospects in imported and home-bred bulls.

The 65 cows and heifers include many real tops, and are of such standard sorts as Victoria, Lancaster, Broadhooks, Nonpareil, Miss Ramsden, Roan Lady, Missie, Mina and others.

Several cows with calves at foot. An extra lot of young cows and heifers that are in calf, and a splendid string of open heifers.

We stand behind the stock we offer with a liberal guarantee. Write:

HARRY SMITH, Sales Manager

Hay, Ontario

For catalogue, and arrange your plans to be with us sale day

SALE AT FAIR GROUNDS

LUNCH AT NOON

Questions and Answers. Miscellaneous.

Fencing Against Hogs, etc.
 Has a farmer to keep up his line fence to fence against hogs and sheep?
 Ontario O. G. Co.
 Ans.—No, that is to say, the owner of any animal not permitted to run at large by the by-laws of the municipality is liable for any damage done by such animal, although the fence enclosing the premises of the complainant was not of the height required by such by-laws. But, of course, the farmer may be compelled by the owner of the farm adjoining his to make, keep up, and repair his just proportion of the line fence between them, and such adjoining owner may call in the local fence viewers to arbitrate in the matter; and they might by their award, incidentally, require the farmer to provide fencing suitable to the purpose mentioned.

Cement Silo.
 What would it cost to build a cement silo 30 feet high and 12 feet wide? Does silage freeze as hard in a cement silo as in a wooden one? If a silo was built inside of a barn, would it prevent the silage from freezing? Would advise building a silo inside?
 A. H.
 Ans.—A silo of the size mentioned, with an 8-inch wall, and using one part of cement to eight of gravel, would require 30 cubic yards of gravel and 25½ barrels of cement. We cannot give you the exact cost as the price of this material varies in different districts, and labor is cheaper in some places than in others. Knowing the quantity of material required, you will be able to figure out the cost at the price of this material in your district. Some contractors have an outfit for building silos, and charge so much per day, or so much for the job. Silage will possibly freeze a little more in the cement silo than in the wooden one, although we have not noticed much difference on our own farm. If the silo was built in the barn it would certainly be a protection. The chief objection is that it will take considerable space both in the stable and barn. If you can afford to do without this space, all well and good; if not, it is advisable to build outside.

Brant County Holsteins

Eighth Annual Sale

HUNT and COULTER FEED STABLES

Brantford, Ontario, March 26th



50 HEAD

46 FEMALES

Every female of breeding age will be fresh or due to freshen within six weeks of sale day.

Every animal has been inspected by a special committee and passed as sound before being accepted. Every bull catalogued has the best of official backing.

We have never been able to offer our customers as choice a lot of guaranteed cattle as we have listed for this sale. We are striving to make this expansion year and feel that our efforts will be appreciated by all. Be with us on March 26. We promise a day worth while.

All requests for Catalogues should be addressed to

N. P. SAGER, St. George, Secretary of Sale,

Ontario

Questions and Answers. Veterinary.

Contracted Foot.

1. The right fore foot of 5-year-old driving mare is contracted.
 2. She has been standing on cement, would that cause it?
 M. S.

Ans.—1. If lameness has not yet appeared a cure may be effected by encouraging the growth of horn. This can best be done by blistering the coronet repeatedly. This entails a long rest. If this can be given get a blister made of 2 drams each of biniodide of mercury and cantharides mixed with 2 oz. vaseline. Clip the hair off all around the hoof for 2 inches high. Tie so that she cannot bite the part, rub well with the blister. In 24 hours rub well again and in 24 hours longer apply sweet oil. Turn loose in a box stall now and oil every day until the scale comes off. Then tie up and blister again, and after this blister once every month so long as you can give rest or the hoof has grown to normal size. Where rest cannot be given the growth of horn can be encouraged by applying water regularly by packing the sole every night with any thing that will retain moisture. The best material for this purpose is a clay or rock that is sold by most high-class harness dealers. The frequent application to the coronet of an irritant as 1 dram cantharides to 1 oz. vaseline will be beneficial where rest cannot be given. This should not be applied often enough to really blister, but sufficiently often to keep up an irritation and it does not necessitate rest. If the mare be valuable it may be profitable to give her a few months rest as above, as it is probable that if present conditions continue that she will become permanently lame.

2. This tends to cause the trouble, but as but one foot is affected there is probably other causes operating, as driving on hard roads and general lack of moisture to the feet. In some cases one foot is normally weaker than its fellow and this would explain why it and not others should suffer under any conditions.
 V.

Price \$2.50 Delivered

hold heat. It absorbs sweat and in- from sores. Keeps shoulders dry, cool from irritation.

Open at the Throat

en throat makes the Langford con- self to the shoulders—gives pulling full play—moves with the shoulders, of rubbing and chafing against them, to put on. Will not pack or harden, weeney. Often last three or more. Costs one-fourth as much as leather, and pad combined.

s open-throated cotton collar. Use horse with sorest shoulders. Use to heal, return collar and get your neck. If your dealer cannot supply d \$2.50, and we you a charges (6-2c)

Trade Mark

ERSAL SALE

Bowmanville

has instructed the under- arm, Bowmanville, Ont., on

h 20th

ted and Canadian-bred

Hackneys

(Imp.) "Baron's Best" (13930) Clydesdale sire of all, "Baron's" imported and Canadian-bred mares

ize-winning stallion, "Terrington" "Terrington." Imported, prize- all imported stock.

old without reserve.

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anville, Ontario

Stock Yards, Bowmanville.

ydesdales

ORE

ns and mares individuality. s of America are offering all ages, and prospective at any time.

write:

Claremont, Ont.

C. P. R.

rcherons

Clydesdales Fillies. The best winners and champions, all for will convince you.

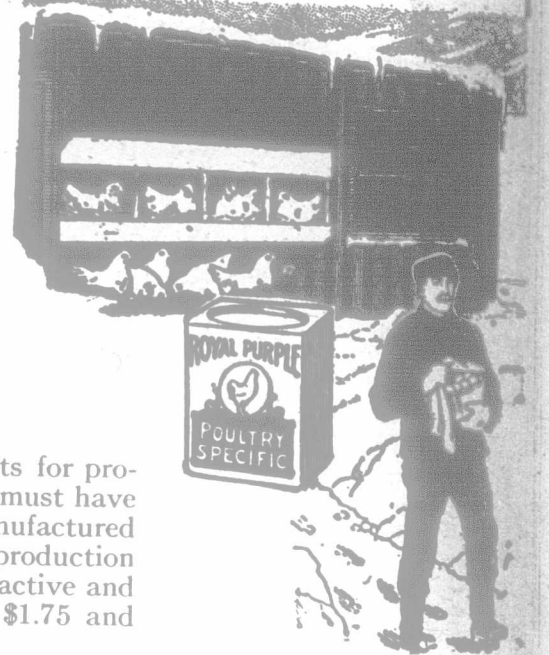
MARKHAM, ONT.

"ROYAL PURPLE" STOCK AND POULTRY SPECIFICS



Your hens will lay lots of
eggs
Winter and Summer

Under the most severe weather conditions you will get plenty of eggs if your hens are properly housed and fed.
"Royal Purple" Poultry Specific



In summer fowl get grain, herbs, grass and insects which are Nature's assistants for producing eggs. In the winter and spring, fowl get practically the same grain, but must have a substitute for the herbs and insects. Royal Purple Poultry Specific, manufactured from roots, herbs, minerals, etc., is a most perfect substitute, increases the egg production at once, and makes the hens lay as well in winter as summer—keeps the fowl active and free from cholera and kindred diseases. Sold in 30c and 60c packages, also in \$1.75 and \$6.00 air-tight tins.

Secure More Milk From Your Herd

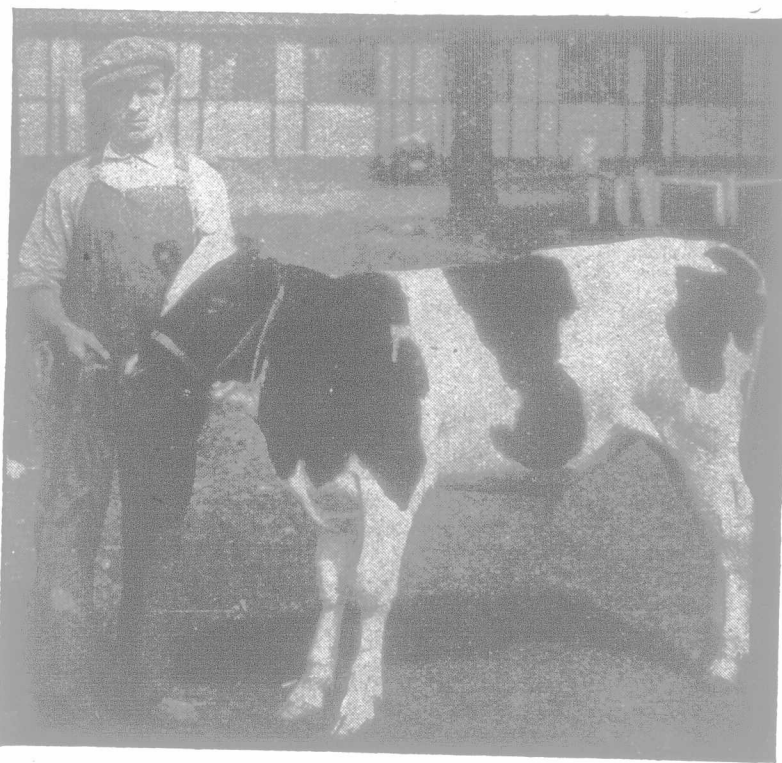
You can increase the flow of milk from 3 to 5 lbs. a day by using

"Royal Purple" Stock Specific

Mr. Norman G. Charlton, Scott, Sask., states:

"I am from Ontario and fed your Royal Purple Stock Specific when in Bowmanville. My cows made the largest average and tested 5 pounds over average at G.M.P., Brownsville. I believe you make the best conditioner on the market."

The great farm animal conditioner and fatter is used in almost every progressive stock-raiser's stable in Canada. Good for all stock in a run-down condition. Can be used occasionally or continually without showing bad after-effects. Royal Purple Stock Specific is purely a digester and blood purifier. It aids digestion to such an extent as to produce the very best results, and obtain the maximum amount of good from the food eaten. It will enable you to fatten your steers and hogs a month earlier, thereby saving a month's feed and labor. Royal Purple Stock Specific is put up in 60c. packages and large \$1.75 and \$6.00 tins. Secure our products from our dealer in your town.



This pure-bred Holstein bull calf was raised by L. H. Lipsit, Straffordville, Ont., and took first prize in his class at the Western Fair, and also took first prize for the best pure-bred Holstein bull raised on "Royal Purple" Calf Meal.

"Royal Purple" Calf Meal Reduces the Cost of Feeding Calves 75%

When calves are 3 or 4 days old they can be fed Royal Purple Calf Meal and raised just as well without one drop of milk.

Mr. Geo. W. Collins, Plainfield, Ont., writes:

"Gentlemen—In regard to your Calf Meal, I think you have the best on the market, as people who have bought it give it great praise. Some have taken their calves off sweet milk, and fed them nothing but your Calf Meal and water, and say they are doing well on it as they did on the whole milk."

This Baby Food for young animals is partially predigested, and can be fed to the youngest animals with perfect safety. IT WILL NOT cause stomach or bowel trouble, which seriously affects the health of young animals, Royal Purple being a sure preventive for scouring.

Royal Purple Calf Meal is equally good for young colts, lambs and young pigs. Put up in 25-lb., 50-lb., and 100-lb. bags. Secure it from our dealer in your town.

"Royal Purple" Lice Killer GETS RID OF THEM QUICK

Percy Prewer, Cross Creek, N.B., says (in a letter of Aug. 7th): "I have used your Lice Killer on a cow that was badly infested with lice. It soon rid her of them."

W. L. Carlyle, Reid's Mills, Ont., says (in a letter of May 18th): "I cannot do without it, as it is the best we have ever tried without a doubt, both for cattle and fowl."

Try it, Mr. Farmer, and see for yourself. Secure "Royal Purple" Lice Killer from our dealer in your town. Should there not be any, write us.

MANUFACTURED BY
The W. A. Jenkins Manufacturing Company
LONDON, CANADA



We also manufacture the following valuable remedies for stock and poultry:

- Royal Purple Cough Cure for horses, 60c tins.
- Royal Purple Liniment for man or beast, 60c bottles.
- Royal Purple Disinfectant, 30c, 60c, \$1.15 tins.
- Royal Purple Worm Powder for animals, 30c packages.
- Royal Purple Roup Cure, 30c tins.
- Royal Purple Colic Cure, \$1.15 bottles.

By mail 10c extra.

USE THIS COUPON

The W. A. Jenkins Mfg. Co., London, Canada.

Gentleman:
Please send us your Free 80-page booklet describing all common diseases of stock and poultry and telling how to build henhouses, also how to raise calves without milk.

Name.....
Address.....

For High-class Breeding Shorthorns

ATTEND THE McCORMICK DISPERSAL

Paris, Ontario, Thursday, March 13th, 1919



THIRTY HEAD

Breeders wishing to obtain choice breeding Shorthorns will find it to their advantage to attend this sale. Individually or collectively, they compare favorably with the best ever catalogued for a small sale in Ontario. All are selling in excellent condition, and the majority carry fashionable pedigrees. Of the thirty, eleven are breeding cows, three are bred heifers, and with the herd sire the remaining numbers are made up of yearlings and 1918 calves. Among the latter are three young bulls old enough for service. **If you are an admirer of good Shorthorns, this offering is guaranteed to please.**

NOTE.—The majority of the cows in this herd have always been milked by hand. Several have given as high as 55 lbs. of milk per day on twice-a-day milking.

WRITE FOR CATALOGUE.

As the farm has been leased for a term of years, there will be absolutely no reserve on anything offered. In addition to the pure-breds there are 22 two-year-old steers and heifers; 8 horses (one matched span of Percheron mares, 6 years old); one matched Clydesdale team; one Belgian mare and two geldings (all grades). Also a quantity of hay and grain. Usual terms. Apply:

WM. T. McCORMICK,

Sale at the farm, one mile east of town limits

PARIS, ONTARIO

Heaves

AND HOW TO CURE
—A Standard treatment with years of success back of it to guarantee results in

Fleming's Tonic Heave Remedy

Use it on any case—No matter what else has been tried—and if three boxes fail to relieve, we will refund full amount paid. Further details in

Fleming's Vest Pocket Veterinary Adviser
Write us for a Free Copy

BEST EVER USED
Dear Sirs:—Enclosed find \$1.00 for 1 package of Tonic Heave Remedy. I used a package last year and completely cured a case of Heaves of some 3 years' standing.

H. B. BURKHOLDER, Lillooet, B.C.
Per Box, \$1.00; 6 for \$5.00

FLEMING BROS., Chemists
75 Church St. Toronto

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.

SPRUCEDALE

Shorthorns and Berkshires

Herd headed by Sprucedale Butterfly, whose dam, Orma of Northlynd 105359 (owned in herd), has a 4-year-old R. O. P. Period of 10463 lbs. milk, 390 lbs. fat. Shorthorns and Berkshires of different ages and sex for sale. Inspection invited.
Frank Teasdale - Concord, Ont

SHORTHORNS

Present offering, 6 choice young bulls and a few females, their dams are good milkers and best of breeding. Prices moderate.
Stewart M. Graham, Lindsay, Ontario.

Evergreen Hill Farm R.O.P. SHORTHORNS

Offering two bulls 12 months old by St. Clare, R.O.P. No. 5. S. W. Jackson, Woodstock, Ont.

BULLS BULLS BULLS
I have for sale 4 very high-class Shorthorn bulls, 2 yearlings and two years old. These bulls are to be sold immediately, and the price will be right. Don't over-look this chance. Barred Rock Cockerels, \$5.00 apiece. S. Dymont, Barrie, Ont.

Shorthorns and Clydesdales—We have a number of Shorthorn bulls which are pure Scotch and Scotch-topped; extra good quality, out of high-record cows; also a few females, and one extra good yearling Clyde Stallion; also a good two-year-old mare. P. CHRISTIE & SON, Port Perry, Ont.

Shorthorn Bulls for Sale—Eight young bulls of serviceable age. Sired by the imp. bull Donside Prince 101809.
WM. GRAINGER & SON, Auburn, 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.

20 Females

5 Bulls

Dispersion Sale of Scotch Shorthorns

On the farm of IRWIN McMAHON, Hawkstone, Ont., 1/2 mile from Hawkstone G. T. R. Station, on

WEDNESDAY, MARCH 12th, 1919

The families represented include Bruce Mayflower, Marr Flora Missie, Mina, Strathallan, Village Girl, Jilt and Duchess of Gloster. Trains will be met at Hawkstone, G.T.R. Station on day of sale, and passengers coming via Blackwater or intermediate points will be met at Orillia, G. T. R. Station, at noon on day of sale.

TERMS:—Cash, but time up to 6 months will be given where required on approved notes bearing interest at 6%.

CAPT. T. E. ROBSON, London, Ont., Auctioneer.

IRWIN McMAHON, Hawkstone, Ontario, Proprietor

WRITE FOR CATALOGUE.

Beach Ridge Shorthorns and Yorkshires

Shorthorn herd headed by Sylvan Power 95871, a junior champion on Canadian circuit in 1915, and sire of the G. Champion Bullock at Guelph Winter Fair 1918. Young stock of all ages, both sex, for sale; also young cows with calf at foot or in calf to Sylvan Power. We can supply any want in Yorkshires.
R. D. HUNTER, EXETER, ONT.

Shorthorn Bulls and Females—Herd headed by Ruby Marquis, a son of calves now coming are all by this sire. We are also offering a few females in calf to him. Get our prices before buying elsewhere.
PRITCHARD BROS., R.R. No. 1, Elora, Ont.

"COMMANDER" = 115964 = calved Jan. 20, 1917, dark red, a model for type, sired by Burnfoot Chief-O.P., she is sister to Jean Lassie who gave 13819 in R.O.P. He is strong and sure and price is right. Also have two 10 months old red bulls, strong milk backing, priced to sell. Write for particulars or come and see them.
Hugh A. Scott, Caledonia, Ont. Phone 5-18, R.R. No. 3. (Will meet

PEART BROTHERS SHORTHORNS

We are offering our Scotch Bred herd sire Nonpareil Counsel 96931, also ten young bulls of his get practically all ready for service, from cows of both beef type and dual-purpose, one of which has qualified in R.O.P. Prices reasonable. Inspection invited. Please to meet trains at Hagersville, M. C.R., Caledonia, G.T.R.
PEART BROS., Phone 70-16, Caledonia, Ont., R.R. No. 3.

SHORTHORNS and CLYDESDALES

Herd still headed by Proud Victor = 102587 =. For Sale—One red, 20-months old, and eight 10-months-old choice reds and roans. Also females of all ages.
J. B. Calder
Glanford, Sta. R. R. 3

SPRUCE GLEN FARM SHORTHORNS

We have for sale a number of young bulls fit for service and a few choice heifers.
JAMES McPHERSON & SONS
DUNDALK, ONTARIO

Spring Valley Shorthorns—Herd headed by Sea Gem Pride = 96365 =. Present offering includes two real herd headers. One imported in dam, the other by Sea Gem. Telephone and telegraph by Avy.
KYLE BROS., R. I. Drumbo, Ont.

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
WM. SMITH, COLUMBUS, ONT. Myrtle, C.P.R.; Brooklin, G.T.R.; Oshawa, C.N.R.

Pure Scotch and Scotch-Topped Shorthorns—We have several choice young bulls of the best of breeding and ready for service. Two are by Raphael (imp.), one by Right Sort (imp.), one by Sittytton Selection, and several by our present herd sire, Newton Cedric (imp.). Prices right.
R. M. MITCHELL, Freeman, Ont., R.R. No.

Young Bulls for Sale 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 Baroness, buyers at G. T. R. or C. P. R. stations—Woodstock or Ingersoll.
WALBURN RIVERS & SONS (Phone 343 L Ingersoll, Independent Line), R.R. 5, Ingersoll, Ont.

The Present Hour—Canada's Greatest Need.

No person who contemplates affairs in Canada to-day can feel very sanguine. It is true, as the optimist says, that we have a great country confronted by unparalleled opportunity, yet there is an unthinking optimism which fails to take into consideration the menacing dangers facing us as a people at this hour.

We cannot close our eyes to the fact that the Bolshevik is here, insistent in his propaganda; that the extreme Socialists have captured the leadership of labor; that to the ranks of the latter are flocking all the elements of social discontent in our centres of population; and that they are preparing for immediate action. In other words among certain elements the revolutionary consciousness is rife and it is embodying itself in well-knit organization.

The general situation may be not alarming, but it is pregnant with tremendous possibilities. In any case the outlook is ominous.

Now in turning the thing over in my mind I have tried to make an analysis of these possibilities.

First of all there is the menace of the revolutionary consciousness. That this will crystallize into immediate action I do not believe probable, though I do believe it possible. There are not wanting those leaders who secretly and openly advocate it, and who would seize any acute labor situation as an opportunity for revolt. For example, a general strike is by no means beyond the stretch of improbability. Suppose it should lead to a clash with the constituted authorities—what then? One does not need a vivid imagination to answer the question.

Secondly, there is the actual presence of increasing suspicion and hostility within the industrial life of Canada. Leaving aside what may be the attitude of manufacturers and employers, labor is watchful and distrustful. Furthermore it is conscious of its power. What effect is this likely to have upon industrial development so essential in the period of reconstruction? It cannot help but retard it. Capital will be chary in engaging upon new enterprises. It will tend to flow to other fields where there is less unrest if such can be found. This will tend to aggravate the situation, for it will lead to unemployment not only for the workers now in Canada, but for the soldiers who are returning in increasing numbers. Nor will this be without its reaction upon agricultural life. There is a close relation between the prosperity of the cities and the country communities. Where one suffers the other suffers also. The result would be not only retardation in national life generally, but the adding of fuel to the fires of discontent. Just as famine lends itself to anarchy, so does unemployment lend itself to the spirit of revolution. Thus the returned men and the workers might be led to make common cause. In fact, there are not wanting those who are hoping that such a combination might take place; and in considering this possibility we cannot be blind to the fact that the soldier has become used to the wielding of the instruments of force for the achievement of certain ends.

Thirdly, we cannot be unaware of the fact that there are genuine grievances behind all this ferment and unrest. For large numbers the increasing cost of living has more than outdistanced the increase in income, and every increase in wages of the worker has been promptly met by increase in the price of essential commodities. What ever may or may not be true of the average merchant, wholesaler and manufacturer, one thing is certain. There are glaring examples of huge profits and tremendous fortunes accumulated during the exigencies of hostilities. While there may be truth in the contention that this is rare rather than general, yet there are large elements within the population who have been led to believe and firmly maintain that this is true of the manufacturing and employing classes as a whole. They also maintain that the Government has made no serious attempt to cope with this evil.

Lastly, in looking over the whole field,

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Present Hour—Canada's Greatest Need.

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**Dispersion Sale of
HIGH QUALITY, DUAL-PURPOSE
Shorthorns**

Owing to the death of the late S. A. Moore
the entire herd will be sold without reserve.

THIRTY HEAD

Farm one mile out of CALEDONIA, ONT.

Tuesday, March 25th, at 1 o'clock

The herd has been built up on strictly dual-purpose lines. While splendid records have been developed, Shorthorn type and conformation have not been lost sight of. The mature cows are big, deep, thick individuals, and that they are good milkers is borne out by the records made in the R.O.P.

In the offering are 13 mature cows with records from 7,500 lbs. up to 13,535 lbs., many of which are in calf to Burnfoot Chieftain, a son of Dairymaid, which has a record of 13,535 lbs. Four sons of Burnfoot Chieftain are ready for service. There are also five bull calves and six heifers by the above sire.

Catalogues on application.
Bids by mail will be executed by the Auctioneer.

MRS. S. A. MOORE, Caledonia, Ontario
CAPT. T. E. ROBSON, Auctioneer

**AUCTION SALE OF
40 HEAD 40
Scotch Shorthorns**

THE PROPERTY OF
IRA MINOR & SONS
At Low Banks Stock Farm, Low Banks, Ont.
Three miles south of Low Banks Station, G.T.R. Line, on

Thursday, March 20th, 1919, at 1 o'clock

Twenty-one cows, nearly all with calves by side. Thirteen choice heifers, 6 months up. Six young bulls, serviceable age. All by imported sires.

Sale will be held under cover. Conveyances will meet all trains at Low Banks Station. Luncheon at noon.

TERMS:—Cash, or 6 months' credit on approved joint notes at 6 per cent. interest.

Auctioneers: T. Robson, F. Montague, W. N. McQuillen
Catalogues on application.

Imported Shorthorns

SIRE IN SERVICE:

Imp. Collynie Ringleader (Bred by Wm. Duthie)	Imp. Clipper Prince (Bred by Geo. Campbell)	Imp. Orange Lord (Bred by Geo. Anderson)
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We are offering a large selection in imported females with calves at foot or in calf. A few home-bred females, 19 imported bulls and 8 home-bred bulls, all of serviceable age. If interested, write us, or come and see the herd.

J. A. & H. M. PETTIT - Freeman, Ontario
Burlington Jct., G.T.R., half mile from farm. Phone Burlington.

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

while there has been much talk of reconstruction, there is the feeling that it is vague and indefinite, and that there is no well-defined policy, let alone programme, before the people as a whole.

Such is a brief analysis of the situations as it presents itself to many minds.

The question asserts itself, what is the policy we ought to adopt towards the spirit of unrest and suspicion and mistrust so widely prevalent? What shall be our attitude to the revolutionary spirit which is manifest?

We may deplore it, but we cannot ignore it. Nothing could be more fatal than a policy of indifference. Surely, with all the signs so clearly before our eyes we shall not allow ourselves to drift through inertia to whatever may betide!

In all this there is one aspect we frequently overlook. While the elements of discontent are articulate and are rapidly organizing for action, there is a large proportion of the population which is both inarticulate and unorganized. This group comprises by far the largest section of our national life. It is made up of men and women in every walk of life irrespective of wealth or social standing. They are patriotic, public-spirited and desirous of true social progress, but they are unobtrusive. They go about the general work of life, whether it be in office or workshop, school or on a farm with a sincere desire for the general good. They are resentful of injustice and corruption and are just as much the enemies of the grafter and profiteer and those who would traffic upon the needs of the people, as are the most radical, but they are not class conscious.

In addition to being inarticulate and unobtrusive, they are also impressionable and hence subject to the influence of vociferous extremes. The extremes which are voiced in a disorted way in the reports of the press in turn result in a distorted conception of social conditions in the mind of this great class of people.

But one must remember that here in the last analysis is the reservoir of power and vitality. This class swings the scale of moral influence, and in the end determines the direction of social action. When roused to moral enthusiasm it can

HARNELBEL SHORTHORNS

Some Choice Young Bulls For Sale

No. 1—Dark Roan, Calved Dec. 8th, 1917, Sire Sultan, choice Dam, Jealousy 4th.
No. 2—Red, calved May 23rd, 1918, Sire Meadow Lawn Prince Dam, Lady Castremont.
No. 3—Dark Roan, Calved July 15th, 1918, Sire Sittyton Sultan Dam, Elendale Lily.
No. 4—Light Roan, Calved July 25th, 1917, Sire Mortimer Dam, Darlington Queen.
No. 5—Red and White, Calved Sept. 19th, 1918, Sire Gainford Sultan Dam, Crimson Fuchsia 3rd.
No. 6—Red, Calved Dec. 13th, 1917, Sire Mortimer Dam, Lady Sovereign 4th.
No. 7—White, Calved Aug. 1st, 1918, Sire Gainford Supreme Dam, Glen Buell Clipper 8th.
No. 8—White, Calved Aug. 2nd, 1918, Sire Gainford Supreme Dam, Darlington Queen.

HARRY McGEE, Proprietor, 61 Forest Hill Road, Toronto
SAML. TRUESDALE, Manager, Islington, Ont.

A Proven Shorthorn Sire For Sale

To be sold at once, the Ontario Agricultural College Shorthorn herd sire **Proud Diamond** =92502=. A richly bred claret son of Proud Monarch =78792=. He is active, sure, weighs 2300 lbs. in ordinary condition and is one of the best breeding bulls the college has ever owned. Scotch Shorthorn character, individuality, prepotency and pedigrees are combined in this bull which is offered at a low price. Apply to

WADE TOOLE, Animal Husbandry Dep't, O. A. C.
GUELPH, ONTARIO

Choice Shorthorn Females

Mysie, Rose-marys, Clementinas, Missie, Miss Ramsdens, Cruickshank, Fragrance, etc., all good pedigrees and all good breeding cattle in calf to good bulls. Prices right. Also a few bull calves. Correspondence solicited.

JAS. K. CAMPBELL & SONS, PALMERSTON, ONT.

A FEW SCOTCH SHORTHORN BULLS

Several are old enough for service and all are got by a grandson of the great Superb Sultan. Individually they are strong enough to head the best of herds, and the breeding is unexcelled. Write us also for any thing in Shropshires or Clydesdales.

ROBERT DUFF & SON, R.R. Stations C.P.R. - C.T.R., Myrtle, Ont.

The Salem Herd of Scotch Shorthorns

HERD HEADED BY GAINFORD MARQUIS, CANADA'S PREMIER SIRE

Write us about the get of Gainford Marquis. They have won more at Toronto and other large exhibitions than those of any other sire. We still have a few sons to offer, as well as females bred to Canada's greatest sire.

J. A. WATT :: :: Elora, Ontario

I HAVE FOUR RED BULLS

Two imported, also a few females for sale.

J. T. GIBSON - - - DENFIELD, ONT.

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.

swing the national life towards any desired goal. It was this class which swung the election in favor of the Union Government. It is this class which will finally determine the course of reconstruction in one of three ways by inaction, or in a wrong direction due to misinformation and the pressure of wrong influences, or awakened to the true condition of affairs will force the weight of its influence in the right direction.

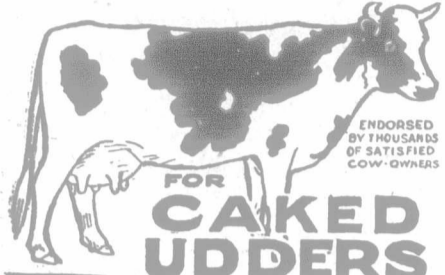
Now, I am convinced that it is only the awakening of this class that can save us from a disaster which might plunge our national life into chaos, that can furnish a balance between opposing extremes, and which can create that moral situation which, giving hope of true reform, can quiet the revolutionary consciousness. In other words it is upon it our salvation lies.

But who will undertake this work of arousing these people, of organizing them and making them articulate? The Press? For reasons that I need not mention here this is impossible. The Church? The Church is not awake to the situation. The existing political parties and groups? They are discredited. The boards of trade and similar organizations? These are distrusted by the workers as being capitalistic institutions.

It seems to me that the start must be made by groups of disinterested citizens here and there who will undertake the work of publicity and education. First of all there must be an analysis of the existing situation and the causes of unrest, an interpretation of the purpose and programme of the extremist together with an exposition of his grievances, an outline of the most needed and pressing reforms, and last but not least a genuine programme of reconstruction. Secondly, this analysis must be published broadcast all over the land together with an appeal to the inarticulate. Thirdly, public meetings must be called here and there, which eventually culminate in a conference made up of representatives from all over the Dominion.

This I am confident would result in three things. First, in an awakening and arousing of the latent moral power of Canada. Secondly in a movement of genuine reconstructive reform along legis-

THE RELIABLE REMEDY



DOUGLAS' EGYPTIAN LINIMENT

I have now used Douglas' Egyptian Liniment for 2 years, and find it gives the best satisfaction for man and beast.

This Liniment will also stop bleeding at once and prevent blood poisoning 35c A BOTTLE

DOUGLAS & CO., Manufacturers, NAPANEE

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.

DALTON

Massachusetts

English Dual-Purpose

Shorthorns

For sale: Bull calves and young bulls. English bred for milk and beef.

LYNNORE STOCK FARM F. Wallace Cockshutt Brantford Ontario

MAPLE SHADE

Shorthorns

Young bulls sired by "Archer's Hope." Ten imported bulls. Best Scotch breeding.

WILL. A. DRYDEN

BROOKLIN - ONTARIO

Holstein Bulls

Ready for service and younger. Cows and heifers bred to ORMSBY JANE BURKE.

R. M. Holtby, R.R. 4, Port Perry, Ont.

Holstein Bull Calf

We are offering for \$65.00 this good sized three-quarter bull calf dropped Jan. 4, 1919.

ROBERT WILLIS & SONS R. No. 1, London, Ontario

lative lines rather than along the lines of social upheaval. Thirdly, it would draw into its ranks those discontented elements who for lack of other leadership are now following the Bolshevist and extreme Socialist.

I have already much exceeded the space allotted me for my articles. But in conclusion, let me say that my own conviction is that I have underestimated rather than overestimated the seriousness of the situation.

Gossip

Canadian Bred Shorthorns at the International.

There are without doubt in Canada to-day many Shorthorn breeders who having had their eye focused on the record top prices that have prevailed at various auctions throughout the United States during the past four years have failed to appreciate to the fullest extent Shorthorns that were bred in Canada.

The Death of S. A. Moore.

S. A. Moore, of Caledonia, suffered a severe stroke on February 11 and passed away within a few hours. The late Mr. Moore as proprietor of "Burnfoot Farm" was well known to stockmen and particularly to Shorthorn breeders.

Important Sale of

SHORTHORNS FORTY HEAD

The entire herd belonging to John Elder and selling at the farm near

Hensall, Ontario, Wed., March 19

Shorthorn breeders will recognize in this offering a herd that has retained a high place among the better Western Ontario herds for almost a quarter of a century.

JOHN ELDER,

HENSALL, ONT.

Watch these columns for further particulars.

Dual-Purpose Milking Shorthorns

Herd headed by Dominator 10624 whose two nearest dams average 12,112 pounds of milk in a year.

Weldwood Farm

Farmers Advocate

LONDON, ONTARIO

33-LB. GRANDSONS OF LULU KEYES

I have at present ten young bulls all sired by my own herd sire, King Korndyke Sadie Keyes, a son of Lulu Keyes, 36.05 lbs. of butter in 7 days.

D. B. TRACY (Hamilton House Farms) COBOURG, ONT.

Sunnybrook Holsteins!

The Bull is the first consideration!

We have a few for sale highly strained in the blood of the World's Record cows, all sons of Sir Lyons Hengerveld Segis (one of Canada's greatest bulls).

Jos. Kilgour, Eglinton P.O., North Toronto.

A Few Select Holstein Bulls—Priced right—These youngsters are exceptionally good individuals; all from good dams and also spare a few heifers bred to our 30-lb. sire, Gipse Pontiac Cornucopia.

JOS. PEEL, R.R. No. 4, Port Perry, Ontario

6 BULLS BY KING SEGIS PONTIAC DUPLICATE Brother to the \$50,000 bull. Three of these are ready for service and all are show calves.

"The O'Reilly Stock Farm" Holsteins—We have several beautiful young cows and heifers in calf to "King Segis Pontiac Posch," son of the \$60,000 foundation or an addition to the herd, write us, or come.

J. O'REILLY, R.R. No. 9, Peterboro, Ont.

CLOVERLEA FARM HOLSTEIN-FRIESIANS

Offers for sale some choice young bulls ready for service from tested dams. Priced right for immediate sale. Phone or write.

GRIESBACH BROS. COLLINGWOOD, ONTARIO

ELDERSLIE FARM HOLSTEIN-FRIESIANS

I am offering for immediate sale several young sons of my senior herd sire Judge Hengerveld De Kol 8th, who is a 32.92-lb. grandson of De Kol's 2nd Butter Boy.

A. MUIR (Take Kingston Road Radi il cars from Toronto, Stop 37) Scarboro P.O., Ont.

SILVER STREAM HOLSTEINS

We are offering a choice lot of young bull calves, all sired by King Lyons Colantha, only one of serviceable age on hand at present.

JACOB MOGK & SON, R.R. 1, Tavistock, Ont.

I HAVE HOLSTEIN BULLS AND FEMALES

At right prices. The bulls are all from good record daughters of Louis Prilley Rouble Hartog and sired by Baron Colantha Payne, a son of Canada's first 33-lb. cow.

T. W. McQUEEN, Oxford County, Bell Phone, Tillsonburg, Ont.

**DISPERSION SALE OF CANADA'S INTERNATIONAL
Champion Herd of Utility Jerseys
TUESDAY, MARCH 18, 1919, AT MYRTRY LODGE
3 Miles from Sarnia, Ontario.**

40 head. 20 cows, mostly fresh in; 15 young Heifers from 3 to 15 months old; besides some young Bull Calves and Heifers, and Stock Bull 2 years old.

Cows that "fill the pail, not the dipper." Carrie Nation, (648) winner of 68 first prizes, won the West Lambton Dairy Contest in lbs. of milk and butter fat, against Holsteins, Dairy Shorthorns, Holstein Grades and Jerseys. Produce $64\frac{1}{2}$ lbs. of milk testing 5.3-5 in 24 hours.

This herd has won over 1,500 first and second prizes in 16 years and won all the first and second Herd and Sweepstake prizes at Port Huron, Mich. We have the best blood and milking strains the Dominion or the Island of Jersey can produce. Our standard for 16 years has been a cow producing 10,000 lbs. milk, testing over 5%. We have produced some milking more, testing as high as 7%.

Catalogues issued later. Send for one—and don't miss the sale March 18th.

Sale held under cover if stormy.

Myrtry Lodge Stock Farm
Anthony Hughes R. R. No. 2, Sarnia, Ontario.
Parties from a distance will be met at Vendome Hotel, all trains and boats, go there and report and ask for A. Hughes' sale.

Cream Wanted

Ship yours to us, as we must have it to supply our well-established trade with good quality butter. Therefore, we are prepared to pay you a higher price than any other creamery. We furnish cans and pay express charges. References, any bank.

MUTUAL DAIRY & CREAMERY
743 King St., W., Toronto, Ont.

Cream Wanted

Ship your cream to us. We pay all express charges. We supply cans. We remit daily. We guarantee highest market price.

Ontario Creameries, Limited
London, Ontario.

STAMMERING

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

THE ARNOTT INSTITUTE
RITCHENER CANADA

JUST JERSEYS
Baldwin's
REGISTERED
COATICOOK, QUE.

WILL SELL FEW FRESH JERSEY COWS
Jersey Bull one year, dam Mabel's Poet Snow drop, 1st prize as calf, 1st Junior Champion as yearling, 2nd prize two year old Toronto, four times 1st Woodstock, four times shown. Bull six months, dam Oxford's Silver Bell, milked 38 lbs. day, score 172 points at Guelph 140 days in milk. First calf 1915. I developed and was breeder of Beauty Maid Champion four year old butter cow of all breeds in Canada, also Woodstock Par, Champion Berkshire Boar Eastern Prov. 1916-17. IRA NICHOLS R.R. No. 2, Burgessville, Ont.
Twenty-five Years Breeding Registered

Jerseys and Berkshires
We have bred over one-half the world's Jersey champions for large yearly production at the pail. We 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.

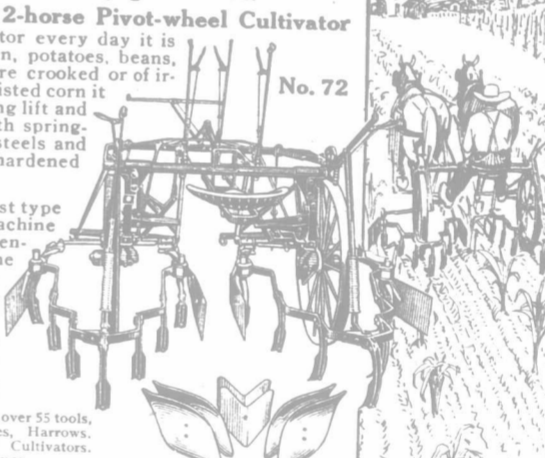
Planet Jr. tools effect a triple saving

They are designed so practically and built so scientifically that every forward motion saves time, decreases labor, and yields a bigger return on your crop-money. Planet Jr. tools are the result of over forty-five years of actual farming and manufacturing experience, and are fully guaranteed.

No. 72 Planet Jr. 2-row, 2-horse Pivot-wheel Cultivator
saves a man, a team, and a cultivator every day it is used. Cultivates two rows of corn, potatoes, beans, etc., at one passage, even if rows are crooked or of irregular width. In check-rows and listed corn it also beats any other tool. Has spring lift and plant shields. Can be equipped with spring-trip standards, discs, sweeps, hoe steels and furrowing shovels. Our specially hardened steels add 50 per cent to wear.

No. 17 Planet Jr. is the highest type of single-wheel hoe made. A hand-machine whose light durable construction enables a man, woman or boy to do the cultivation in a garden in the easiest, quickest and best way.

S. L. ALLEN & CO. Inc.
Box 1108F Philadelphia
New 72-page Catalog, free!
Illustrates Planet Jr. in action and describes over 55 tools, including Seeders, Wheel-Hoes, Horse-Hoes, Harrows, Orchard, Beet- and Pivot-Wheel Riding Cultivators. Write for it today; also name of nearest agency.



Brampton Jerseys at National Dairy Show

At the National Dairy Show at Columbus, Ohio, in October, Brampton Jerseys won among other major awards first for the best five females of the breed, which is, perhaps, the greatest award which can be won at this, the World's Greatest Dairy Show. Among these was Beauty Maid, the champion four-year-old R.O.P. butter cow for Canada. We also bred and owned the dam and imported the sire of the mature champion R.O.P. butter cow for Canada. Why not make your selections from the Brampton herd?

B. H. BULL & SONS BRAMPTON, ONTARIO

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

CANADA'S MOST BEAUTIFUL JERSEY HERD
The Woodview Farm
JERSEYS
LONDON, ONT.
JNO. PRINGLE, Prop.

Herd headed by imported Champion Ronner, winner of first prize with five of his daughters on the Island of Jersey, in 1914, second in 1916, and again first in 1917. We are now offering for sale some very choice bull calves, ready for service, sired by imported bulls and from Record of Performance imported prize-winning cows. Also some cows and heifers. Prices right. We work our show cows and show our work cows.

LAKESIDE AYRSHIRES

Our bulls took the Senior Championship, Junior Championship and Grand Championship in Sherbrooke, and first in their respective classes at Quebec, in addition to taking the special prize for the best bull on the grounds any breed. We have others like them.

WRITE FOR CATALOGUE

GEO. H. MONTGOMERY, Dominion Express Building, Montreal.
D. McARTHUR, Manager, Phillipsburg, Ont.

GLADDEN HILL AYRSHIRES

We have a choice selection of females, 35 head to choose from, every animal in the herd is for sale. If in need of a young bull having record of performance dams. Write or come and see them.

Laurie Bros. AGINCOURT, ONT.

SPRINGBANK R.O.P. AYRSHIRES

We still have a few select young heifers for sale from our excellent herd sires, Netherton King Theodore (imp.) and Humeshunah Inevincible Peter. All from R.O.P. dams. We also have four choice young bulls under 9 months of age. Inspection solicited.
A. S. TURNER & SON, Ryckman's Corners, Ontario.

Questions and Answers, Miscellaneous.

Poor Compression.
What is the cause of an engine running uneven? It seems as if it was pulling hard in one cylinder. Sometime ago a spark-plug was broken. Even after a new plug was put in it still ran uneven and just the other day I took out another plug which had been broken. Both had been in this one cylinder and I was wondering if this cylinder was defective in some form. I have had the carburetor adjusted and can not find the trouble.
W. C. S.
Ans.—If your carburetor has been properly adjusted the trouble may be faulty compression or the cylinder may be scored or it is just possible that you may have valve trouble.
Auto.

Recording Will — Wages Claim.
1. A father willed all his property to his oldest son at his death and in a course of time was not satisfied and went and got the will and burned it. They did not put it on record when drawn up. Could the son record it in that time without the father knowing it?
2. Could a girl who never left home claim wages for taking care of them?
3. What wages can she collect?
A. P.
Ans.—1. No.
2. Not legally, unless she is in a position to prove an express agreement for payment to her of wages, or circumstances from which such an agreement might reasonably be inferred.
3. The rate (if any) would be just what a court might deem reasonable.

A Real Estate Matter.
If an agent sells Northwest lots to me for a company Ltd. and I can not find out from agent who the company consists of can I collect the money from the agent when he agrees to give the money back in two years with interest? He says the papers are the same as a note and he the agent, signs this company's name and his own name to the papers?
It was about seven years ago. Please let me know about its out lawing.
The lots are in Lethbridge and have been taken over by the city for taxes this winter. The agent lives in Medicine Hat. Would I save expense by going out and suing him there and have a chance of getting money back. I gave him a check for it at the time for \$400.00.
Ontario. J. T.
Ans.—We should doubt very much your being in a position to collect from the agent at this late date even though your claim may not be actually outlawed. The lots could be redeemed from the tax sale. It would not pay you to go to Alberta about the matter. Your better plan would be to see a solicitor of your own city personally and be advised by him as to your prudent course.

Tanning Skins.
What is a recipe for tanning skins with the hair on?
J. M.
Ans.—We give below three recipes for tanning such skins with fur on.
1. Stretch the skin smoothly and tightly upon a board, hair side down, and tack it by the edges to its place. Scrape off the loose flesh and fat with a blunt knife, and work in chalk freely, with plenty of hard rubbing. When the chalk begins to powder and fall off, remove the skin from the board, rub in plenty of powdered alum, wrap up closely, and keep it in a dry place for a few days. By this means, it will be made pliable, and will retain the hair.
2. Soft water, 10 gallons; wheat bran, 1/2 bushel; salt, 7 pounds; sulphuric acid, 2 1/2 pounds. Dissolve together, and place the skins in the solution and allow them to remain 12 hours, then remove and clean them well, and again immerse 12 hours longer, if necessary. The skins may then be taken out, well washed and dried. They can be beaten soft, if desired.
3. Saltpetre, 2 parts, alum, 1 part. Mix. Sprinkle, uniformly, on the flesh side, roll up, and lay in a cool place. Spread it out to dry; scrape off the fat, and rub till pliable.
It is rather difficult to make a good job unless you have all the equipment. It is often more satisfactory to have the tanning done at a tannery.

Questions and Answers. Miscellaneous.

Poor Compression. What is the cause of an engine running... It seems as if it was pulling hard... the cylinder. Sometime ago a spark...

W. C. S. —If your carburetor has been...ly adjusted the trouble may be... compression or the cylinder may be... or it is just possible that you may... valve trouble.

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Top Dress with Nitrate of Soda

Feed the Crop; not the Bacteria

Every form of Nitrogen fertilizer, except Nitrate of Soda, must be broken down by bacteria and changed into Nitrate before it can become available for crops. Such bacterial action always results in costly Nitrogen losses.

Nitrate of Soda

is already nitrated! It does not have to undergo changes—but is immediately and wholly available. That's why Nitrate is the quickest, surest, most economical source of Nitrogen

WM. S. MYERS Chilean Nitrate Committee 25 Madison Avenue New York

Summer Hill Oxfords



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-heads and breeding stock we have ever offered.

PETER ARKELL & SONS R.R. No. 1 Teeswater, Ontario H. C. Arkell W. J. Arkell F. S. Arkell

Faster Shearing

Shear with a machine—save time and money. You can shear at least one-half faster. Get 15% more of longer, better wool and not scar the sheep. Get a Stewart No. 9 Ball Bearing Shearing Machine. Fine for flocks up to 300 head. If dealer can't supply you send us his name. Write for catalogue.

CHICAGO FLEXIBLE SHAFT COMPANY Dept. B 161, 12th St. and Central Ave., Chicago, Illinois

Kent or Romney Marsh Sheep

The hardiest and best grazing mutton and wool sheep of Great Britain. Successfully acclimated wherever grazing sheep are required. Descriptive pamphlet list of breeders and all information from

A. J. BURROWS, 41 Bank Street, Ashford, Kent, and at 16 Bedford Square, London, England

REGISTERED DORSET RAM "Maplehurst Model,"

a sure getter, coming 2 years, bred by Stafford of Shelden, for sale. Price reasonable. Also a few choice ewes registered.

G. R. Maylor, Box 108, Forest, Ontario

TOWER FARM OXFORDS

Special offering: Ewes, different ages, bred to our Champion ram.

E. BARBOUR & SONS, R.R. 2, Hillsburg, Ont.

CHOICE DORSET YEARLING

and two shear ewes heavy in lamb, also a quantity of ewe lambs for sale at a reasonable price. STUART J. ROBERTSON, Hornby, Ontario. (Formerly of J. Robertson and Sons).

Shropshires and Cotswolds—A lot of young ewes in lamb to imp. ram, and ewe lambs, good size and quality, at reasonable prices.

JOHN MILLER, Claremont, Ont.

Shropshires

Yearling rams and ewes. A few nice ram lambs by imported ram.

W. H. PUGH, R. R. 1, Myrtle, Ont.

Questions and Answers. Miscellaneous.

Owner of Screen Doors and Windows. In case of property exchanging hands, do such articles as storm doors, screen doors, and outside windows remain with the building and become the property of the purchaser, or do they belong to the late owner? The outside windows are adjustable and were not on nor were they mentioned when the purchase was made.

L. P. Ans.—The things mentioned are not considered in the deal unless specially mentioned. Consequently the late owner could legally remove the said things if he so desired. It is well to have such things specifically mentioned in the deal.

Setting Aside Will—Legal Advice.

1. Has the Court power to set a will aside? (The will has been probated.) 2. For what reason can they? 3. If you doubt a lawyer's advice has he a right to show you his books, or can you make him?

Ontario. W. D. A. Ans.—1. Yes—even after probate.

2. For various reasons, as, for instance, mental incapacity of the testator, undue influence used to procure the will, testator not being of full age, invalidity of signature or attestation, the production of a later will,—and many more examples could be readily given. 3. He may produce and show the books, if any, upon which he based his advice, but he cannot be compelled to do so.

Tuberculosis in Hens.

What is the cause of hens having tuberculosis? What is the proper way to disinfect the premises? How much lime or other disinfectant should be put on the ground? Would it be necessary to disinfect all places where the hens have run? Would the birds which appear healthy be spreaders of the disease? Would you advise killing the entire flock?

T. J. C. Ans.—1. The spread of tuberculosis from fowl takes place only when the living bacteria are transferred from the diseased to the healthy birds, according to Pearl, Surface and Curtis, in their book on "Diseases of Poultry." As tuberculosis lesions are most commonly found in the internal organs of the digestive system, it is reasonable to conclude that the bacteria or the disease enters the body along with food. Diseased birds are constantly throwing off numbers of bacteria in the faeces. This is the most important factor in the spread of the disease, and is especially true when the birds are fed upon the ground that is partly covered by these droppings. Infectious material may be carried by the feet of the attendant and mixed with the feed. As young stock are usually free from tuberculosis it is generally concluded that the disease does not spread through the egg. Sparrows and pigeons feeding with the hens may spread the disease. When the disease reaches the stage when it can be diagnosed, it cannot be cured. When it is discovered in the flock, it is advisable to kill off all which show symptoms, and then thoroughly disinfect all the houses and runs. Birds which are apparently healthy may have diseased livers and intestines and thus keep up the infection of the flock. Some authorities go so far as to say that no attempt should be made to keep any of the fowls which have been exposed to contagion. Cultivating the run or yard and exposing the soil to fresh air and sunshine will destroy practically all the germs. Applying a coating of lime helps to sweeten the soil and is also a disinfectant. As much sunlight as possible should be let into the building. The building should be thoroughly cleaned and then whitewashed, using 5 per cent. carbolic acid in the wash.

2. The material can be mixed up and kept before the hogs at all times. They will then eat what they want. There is no danger of them overdoing themselves on this condition mixture.

The average cow in Ontario gives about 4,000 pounds of milk in one year. What will your father's herd average?

Is Your Thresherman A Grain Saver?



Grain Saving Stacker

This is the most notable advance made in modern threshing. A device in the hopper returns to the separator the grain that would otherwise go to the stack. Users write us that this improvement saves one to three per cent more grain. Figure what that means to you. Get the facts from any of the makers of North America's standard threshing machines listed below. Among those are the builders of the leading tractors and farm implements. All of them are prepared to supply threshing machines equipped with the Grain-Saving Stacker. Write to any of these for information.

LIST OF MANUFACTURERS

- Canada: Robt. Bell Engine & Thresher Co., Ltd., Sarnia, Ontario; Dominion Thresher Co., Ltd., New Hamburg, Ontario; Ernest Bros. Co., Ltd., Mt. Forest, Ontario; John Goodison Thresher Co., Ltd., Sarnia, Ontario; Hergott Bros., Ltd., Midway, Ontario; MacDonald Thresher Co., Ltd., Stratford, Ont. United States: Aultman & Taylor Machinery Co., Mansfield, Ohio; Avery Company, Peoria, Illinois; A. D. Baker Company, Swanton, Ohio; Banting Manufacturing Company, Toledo, Ohio; Batavia Machine Company, Batavia, New York; Buffalo Pitts Company, Buffalo, New York; Cape Mfg. Co., Cape Girardeau, Missouri; J. I. Case Threshing Machine Co., Racine, Wis.; Clark Machine Company, St. Johnsville, New York; Ellis-Keystone Agricultural Works, Pottstown, Pennsylvania; Emerson-Brantingham Co., Rockford, Illinois; Farmers Independent Thresher Co., Springfield, Illinois; Sawyer-Massey Company, Ltd., Hamilton, Ontario; Stewart Sheaf Loader Co., Ltd., Winnipeg, Manitoba; Sussex Mfg. Co., Ltd., Sussex, New Brunswick; Waterloo Mfg. Co., Ltd., Waterloo, Ontario; R. Watt Machine Works, Ltd., Eldestown, Ontario; George White & Sons Co., Ltd., London, Ontario. United States: A. B. Farquhar Co., York, Pennsylvania; Frick Company, Waynesboro, Pennsylvania; Harrison Machine Works, Bellville, Illinois; Huber Mfg. Co., Marion, Ohio; Leck-Gonnerman Company, Mt. Vernon, Indiana; Minneapolis Threshing Machine Co., Hopkins, Minnesota; Port Huron Engine & Thresher Co., Port Huron, Michigan; The Russell & Company, Massillon, Ohio; Russell Wind Stacker Company, Indianapolis, Ind.; Sawyer-Massey Co., Ltd., (United States Agency), Moline, Illinois; Swayne, Robinson & Co., Richmond, Indiana; The Westinghouse Co., Schenectady, New York.

The Grain-Saving Device Originated with The Indiana Manufacturing Co., Indianapolis, Ind., Who Also Originated the Wind Stacker

Bissell Silos

A Silo is almost as necessary on a farm as a pasture. It gives cattle green feed in the winter and when drought dries up the meadows in the summer. A Silo filled with green feed while it is fresh and succulent preserves it and improves it and it gives cattle an appetizing and stimulating ration. Bissell Silos are of pine or spruce staves preserved in creosote oil, steel splined, steel hoops, doors and staves are air-tight. Made in popular sizes. Prices have been made attractive. Consult us freely as to your requirements. Illustrated folders on request.

T. F. BISSELL CO., LTD., 10 AILL STREET., ELORA, ONT.

INVERGIE TAMWORTHS Boars ready for service, heavy-boned, husky lads from Bacon Beauty 12056 sired by my 800 lb. stock boar; Gilts ready to breed; young boars from 100 to 150 lbs. typical bacon hogs fit to head any herd; little lads and lassies just weaned. Express prepaid. Leslie Hadden R. R. No. 2 Pefferlaw, Ont

TAMWORTHS Boars ready for service—a choice lot to select from; also young sows bred for spring farrow. Write: John W. Todd, R.R. No. 1, Corinth, Ont.

BERKSHIRES ADAM THOMPSON, R.R. No. 1, Stratford, Ont. Shakespeare Station G.T.R.

Newcastle Herd of Tamworths and Short-horns—Choice lot of boars and sows, three months old. Several young sows bred to farrow in January, February and March. Also a grand breeding sow carrying her third litter. All descendants of Colwill's Choice, three-year champion at Toronto Industrial, and Imp. Cholderton Golden Secret, and bred to Bruisson, No. 11975, bred by Sir Rodolph Forget. Several Shorthorn bulls ready for service, from deep-milking strains. A few young cows with calves at foot and bred again. Also a few young heifers. A. A. Colwill, R.R. No. 2, Newcastle, Long-distance 'phone.

ELMHURST LARGE ENGLISH BERKSHIRES From our recent importation of sows, together with the stock boar, Suddon Torredor, we can supply selected breeding stock all ages. Satisfaction and safe delivery guaranteed. H. M. VANDERLIP, Breeder and Importer, R. R. 1, BRANTFORD, ONTARIO. Langford Station on Brantford and Hamilton Radial.

Springbank Chester White Swine, Scotch Short-horns—Both sexes; priced to sell, including one Chester herd sire, Sunny Mike —15917—. Satisfaction guaranteed. Inspection invited. WM. STEVENSON & SON, Science Hill.

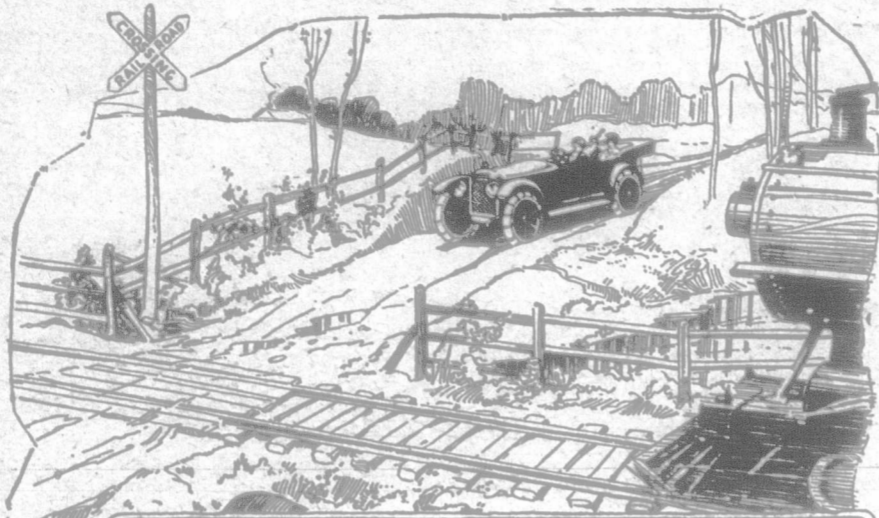
BERKSHIRE PIGS Boars ready for service, sows bred and ready to breed. Also some young things bred from winning stock. Prices reasonable. JAMES CLARK & SONS, Puslinch, R.R. No. 1, Ontario.

Meadow Brook Yorkshires Sows bred, others ready to breed. Six large litters ready to wean. All choicely bred and excellent type. G. W. MINERS, R.R. No. 3, Exeter, Ont.

Maplehurst Herd of Tamworth Swine—Present offering: A choice lot of young stock, either sex, from the leading herd of Canada for the last 15 years. We also have standard-bred horses. Present offering: One first-class young stallion; also a few Pekin ducks and S.-C. White Leghorns. D. Douglas & Sons, R.R. No. 4, Mitchell, Ont.

Big Type Chester Whites—Three importations in 1918. 25 bred sows and gilts for sale, some imported, others by imported sires. All bred to imported boars. JOHN G. ANNESSER, Tilbury, Ont.

The Dardanelles, by action of the War Trade Board under instructions from the Supreme Economic Council in Paris, were thrown open to American trade interests on Feb. 15.



Can you depend on your car?

If not, what fun is there in driving? If you are a little nervous on wet roads you miss half the good of your car.

Carry the chains that are easiest to attach—Dreadnaught chains with the Long-lever Fastener—with electric-welded, case-hardened links for strength—with rust-proof rim chains.

Your garage man can supply you, or write to us direct for information.

MADE IN CANADA

McKINNON COLUMBUS CHAIN LIMITED
St. Catharines, Ont.

Electric and Fire-weld chains.

Dreadnaught
TIRE CHAINS

MALTESE
CROSS
TIRES

The New 1919 Non- Skid Tread

Observe the tread on Maltese Cross Non-Skid Tires. The area of road contact is a continuous belt of thick, tough rubber. It is a means of reinforcement, giving extra strength, long life and endurance.

Like the keystone of an arch, this girth supports every segment of the tire. Its resistance is sufficient to reduce "flexing" to a minimum; it saves the internal fabrics from the wear of undue friction.

The new 1919 "continuous tread" on the Maltese Cross Non-Skid Tire is such a real big improvement that we want every motorist, who is keen on long mileage and freedom from tire trouble, to give this new-pattern tread tire a trial.

Gutta-Percha & Rubber Limited

Head Office, TORONTO

BRANCHES:—Halifax, St. John's, Ottawa, Toronto, Port William, Winnipeg, Regina, Saskatoon, Edmonton, Vancouver

Our School Department.

The Rural School as a Community Centre.

BY A FARMER'S WIFE AND FORMER
TEACHER.

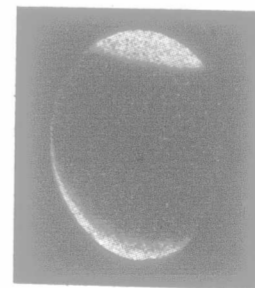
The days of the little log schoolhouse are past and soon, too, will be those of the little school, white, red, green or any other color. The time is fast approaching when every section will boast a spacious, modern and completely-equipped building which will mean more to the community than a place for housing teacher and pupils for the purpose of studying the three R's.

If we are to carry out these new ideals for improving social life in rural districts do we not need some such building? True, the church has its part in this but it cannot do all; for there must be some place for business, agricultural and educational meetings. Every section must have a schoolhouse so why not plan it to serve this double purpose? Then, when literary societies, night classes, women's institutes or farmer's clubs wish to meet you have a comfortable and attractive room. Provided with a good library and a piano, the young people will meet here instead of finding some way to get to the town or city for entertainment.

Every factor of the "city life" which so attracts the youth in suburban districts may be brought right here. Prominent speakers will be glad to come for an evening and address an appreciative audience on "worth-while" topics. Instructive debates, good moving pictures and excellent musical talent will so occupy their time and attention that they will be loath to miss any of these meetings. The school garden, too, which should claim the interest of every parent, may be made a great source of pleasure to all, as well as its inestimable benefit to the children, by making the school-fair an annual event.

Candling Eggs.

Incubators will soon be warmed up and it will not be long before hens will be setting, so a study of eggs and some experience in candling is now seasonable. If there is no tester at the school, it might be well to write at once to the Live Stock Branch, Department of Agriculture, Ottawa, and obtain a tester. These are made of cardboard; they can be used with the ordinary lamp, and they are sent free on request. Testing should be done in a dark room, as the interior part of the egg is more plainly visible when the only light thrown on it comes from the lamp within the tester.



Fertile Egg as Seen Through Tester,
Seventh Day.

Practice on some new-laid eggs first, and become acquainted with the appearance of a perfectly normal egg. However, for school purposes it would be well to make observations with a partly incubated egg along with the good ones.

It will, of course, be more interesting to test eggs from under the hens, or from an incubator. Usually incubator eggs are tested after the seventh day, and the infertile ones are then taken away. Around the seventh day a fertile egg will reveal a clouded spot, such as is shown in the illustration accompanying this article; an infertile egg will be clear, but the yolk may throw a light shadow. It would be worth while to have a hen set just to furnish eggs for school testing. A porch or closet could be fitted up for this work and an egg taken from the nest every day and candled at school would show the development throughout the incubation period. Surely some one

philanthropic enough to donate a nest full of eggs could be found in every section.



A New-laid Egg.

Seed for the School Garden.

Vegetables are grown in many school gardens, and as it is now time that the garden was being planned we are publishing the following recommendations regarding the amounts of seed required.

Asparagus.—1 oz. to 100 ft. of drill.
Beans.—1 pint to 100 ft. of drill.
Beets.—1 oz. to 50 ft. of row.
Brussels sprouts.— $\frac{1}{2}$ oz. to 100 ft.
Cabbage.—1 oz. to 300 ft. of drill.
Carrot.— $\frac{1}{2}$ oz. to 100 ft. of drill.
Cauliflower.—1 oz. to 2,500 plants.
Celery.— $\frac{1}{4}$ oz. per 100 ft. of drill.
Corn.— $\frac{1}{4}$ to $\frac{1}{2}$ pint to 100 hills.
Cucumbers.—1 to 2 ozs. to 100 hills.
Egg plant.—1 oz. produces 2,000 plants.
Endive.— $\frac{1}{4}$ oz. to 100 ft. of drill.
Kale.—1 oz. to 300 ft. of drill.
Kohl-rabi.—1 oz. to 300 ft. of drill.
Leek.—1 oz. to 100 ft. of drill.
Lettuce.— $\frac{1}{4}$ oz. to 100 ft. of drill.
Melons (musk).—2 ozs. per 100 hills, 4 x 4 ft.
Onion.— $\frac{1}{2}$ oz. to 100 ft. of drill.
Onion sets.—1 quart to 50 ft. of drill.
Parsley.— $\frac{1}{2}$ oz. to 100 ft. of drill.
Peas.—1 to 2 pints to 100 ft. of drill.
Peppers.—1 oz. produces 1,500 plants.
Radish.—1 oz. to 100 ft. row.
Rhubarb.—1 oz. seed to 125 ft. of drill.
Salsify.—1 oz. seed to 100 ft. of drill.
Spinach.—1 oz. to 100 ft. of drill.
Squash.—8 ozs. to 100 hills.
Tomato.—1 oz. produces 2,000 to 2,500 plants.
Turnip.—1 oz. to 200 ft. of drill.

A Study of the Oat.

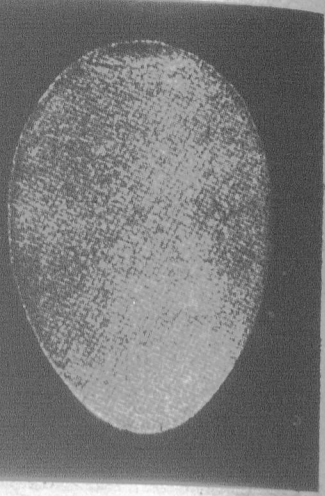
So far as the farmer is concerned there are two parts of the oat which should be given serious consideration. The hull is no better than oat straw for feeding purposes, so an oat which has a large percentage of hull is not a profitable kind to grow, even if it does yield heavily. Practically all the feeding value is in the oat kernel wrapped up inside the hull, and a good oat has a large kernel but a thin hull. Some varieties are said to be thin-hulled, for they have in the neighborhood of 75 per cent. kernel and, of course, around 25 per cent. hull. There are oats which have a smaller percentage of hull, and still others have 35 per cent. or more.

As a general thing, side oats—that is, varieties where the oats hang on the side of the stem—are thick hulled, while those with a panicle or spreading head are more likely to be thin hulled. Banner and O. A. C. No. 72 will average around 27 to 30 per cent. hull, yet they possess many good qualities not found in thinner-hulled oats.

The straw should be considered when selecting a variety of oats to sow, because some varieties have a weak straw and the crop will lodge. This is a matter which cannot be studied in the school-room, but pupils might bring samples of oats grown on their own farms, and compare them with their neighbor's. There are many things to take into consideration when selecting a variety of oats. We have named a few; can you suggest others?

Department.

ropic enough to donate a nes
eggs could be found in every



A New-laid Egg.

ed for the School
Garden.

bles are grown in many school
and as it is now time that the
as being planned we are publish-
following recommendations re-
the amounts of seed required.

gus.—1 oz. to 100 ft. of drill.
—1 pint to 100 ft. of drill.
—1 oz. to 50 ft. of row.
s sprouts.— $\frac{1}{4}$ oz. to 100 ft.
re.—1 oz. to 300 ft. of drill.
— $\frac{1}{2}$ oz. to 100 ft. drill.
ower.—1 oz. to 2,500 plants.
 $\frac{1}{4}$ oz. per 100 ft. drill.
 $\frac{1}{4}$ to $\frac{1}{2}$ pint to 100 hills.
bers.—1 to 2 ozs. to 100 hills.
nt.—1 oz. produces 2,000 plants.
— $\frac{1}{4}$ oz. to 100 ft. of drill.
—1 oz. to 300 ft. of drill.
abi.—1 oz. to 300 ft. of drill.
—1 oz. to 100 ft. of drill.
— $\frac{1}{4}$ oz. to 100 ft. of drill.
(musk).—2 ozs. per 100 hills.

— $\frac{1}{2}$ oz. to 100 ft. drill.
ets.—1 quart to 50 ft. drill.
— $\frac{1}{2}$ oz. to 100 ft. drill.
1 to 2 pints to 100 ft. drill.
—1 oz. produces 1,500 plants.
—1 oz. to 100 ft. row.
b.—1 oz. seed to 125 ft. of drill.
—1 oz. seed to 100 ft. drill.
—1 oz. to 100 ft. of drill.
—8 ozs. to 100 hills.
—1 oz. produces 2,000 to 2,500

—1 oz. to 200 ft. of drill.

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There's a heap of good value in Neolin Half-Soles. They have such sensible qualities.

Long Wear that gives economy. As Neolin Soles add life to new shoes, so Neolin Half-Soles mean months more wear from worn shoes.

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Sell Your Cream

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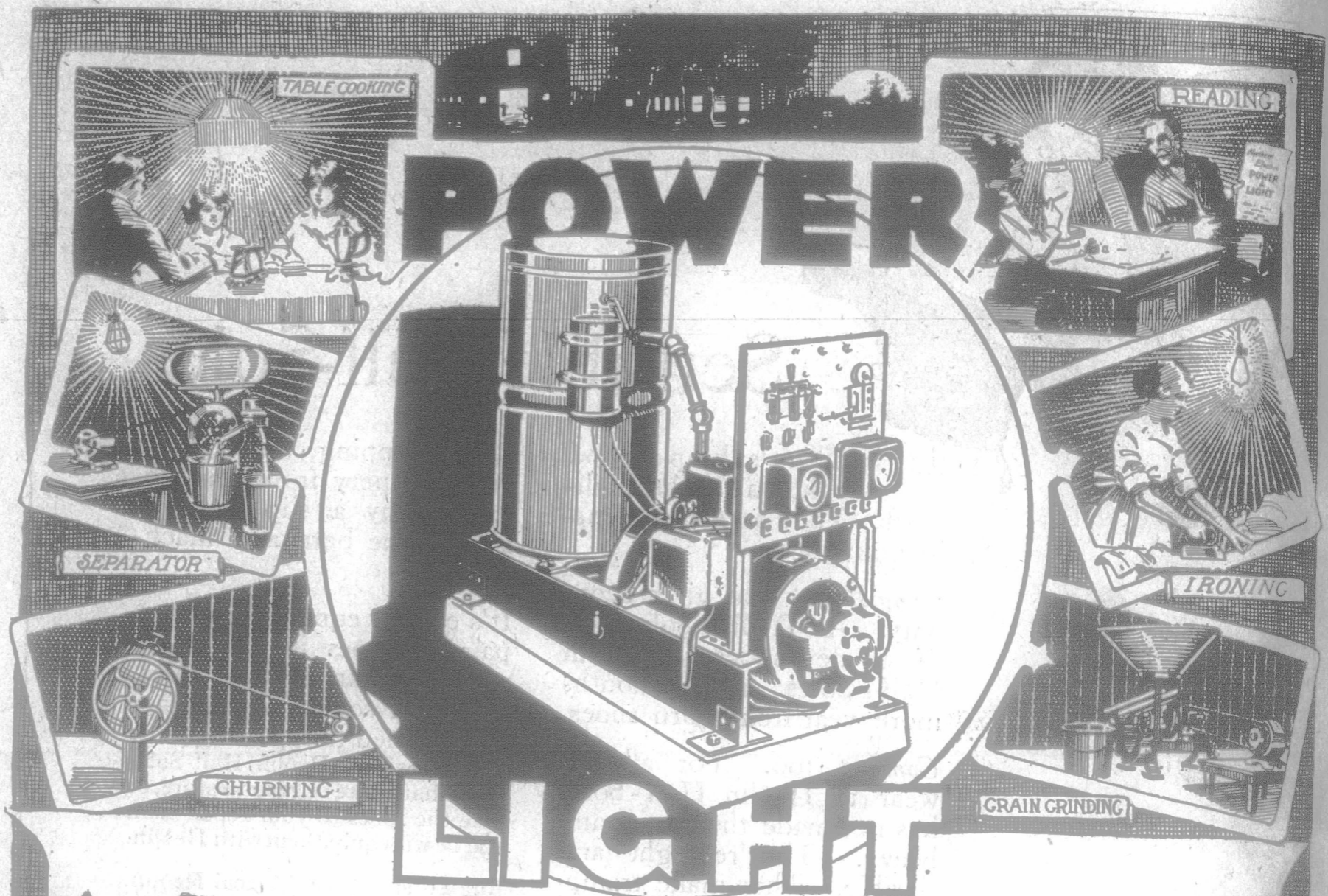
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