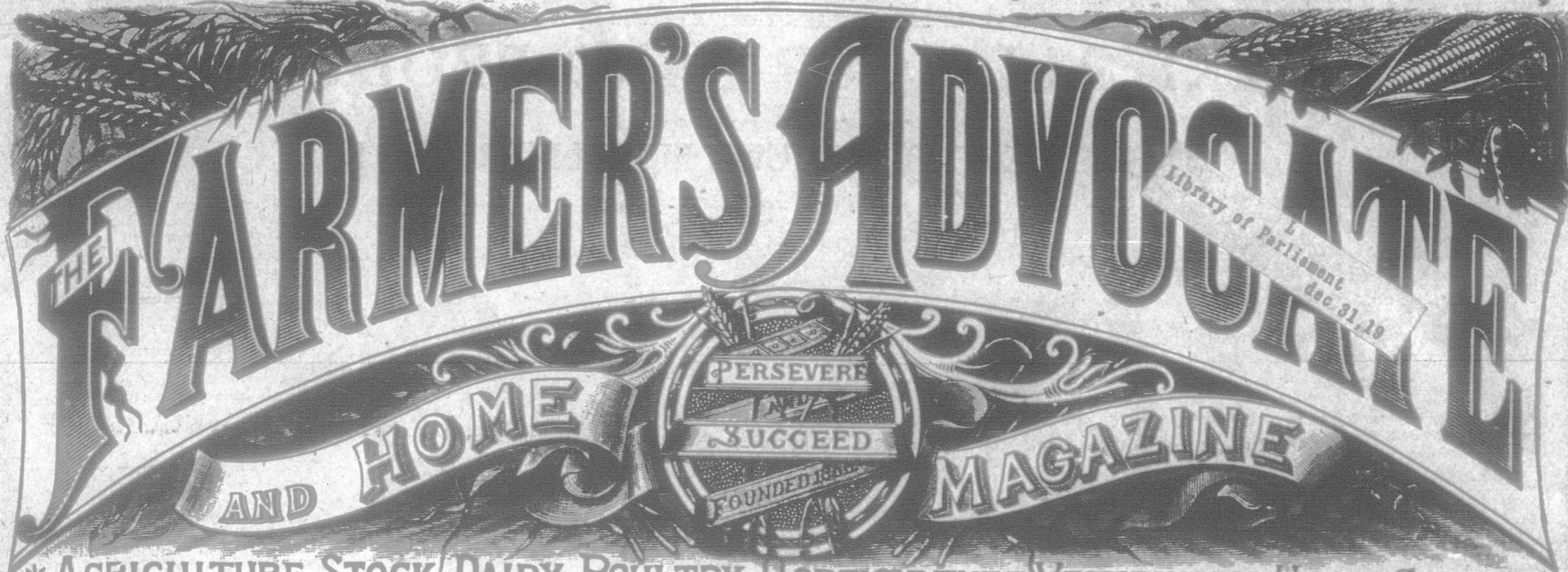


MARCH 6, 1919

PUBLISHED EVERY WEEK. \$1.50 PER YEAR.



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

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LIV.

LONDON, ONTARIO, MARCH 13, 1919.

No. 1381

FROST

Another maker may claim he puts as strong a lock on his fence as the Frost Tight Lock. Examine it and see.—Another may claim his laterals have a wave equal to the Frost wave. Examine again.—Still another may say his spacing is as accurate. Compare.

One thing he cannot claim. And that is to make his own wire, temper it and galvanize it, as we do to every strand of wire in Frost Fence. Ordinary commercial wire is not considered good enough for Frost Fence.

We advise purchasing Frost Fence now. There has been an under-production of fencing during the past two years and such immense quantities of steel and iron will be required for rails, bridges, buildings and other re-construction work overseas that there is a likelihood of there not being enough raw materials available for producing sufficient fence to supply the demand this season. With the prices of raw materials firm and wages high, there is no more reason to look for any great reduction in the price of fence than in the price of farm produce.

Buy Frost Fence NOW.

FENCE

FIRST



Frost Steel and Wire Company, Limited

HAMILTON, CANADA

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MAKE ALL YOUR LAND PRODUCE

... WITH A ... JOHN DEERE-VAN BRUNT FERTILIZER DRILL

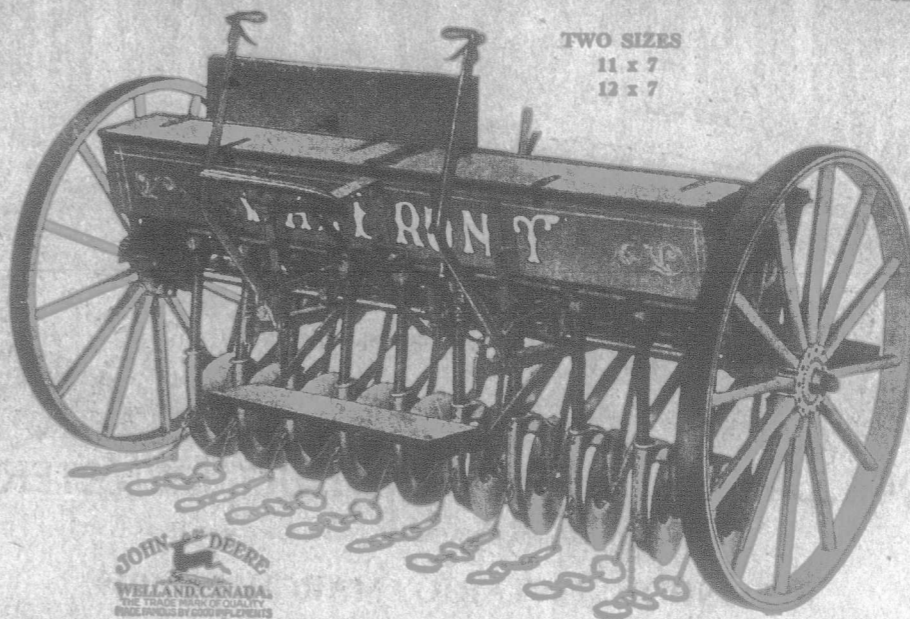
It will handle any standard fertilizer, 66 to 1,250 pounds per acre, according to variety. Investigate the finger-type feeder wheels and knocker, which prevents fertilizer from choking up in the fertilizer box.

Special feeder wheels can be furnished to distribute 24 to 750 pounds per acre.

The tilting lever makes perfect seeding possible under any conditions of seed or soil.

The Van Brunt Patented Disc Bearings are guaranteed for the life of the drill, and each machine is warranted to do satisfactory work in any kind of soil capable of being seeded. If the machine does not make good, the makers will.

IT WILL PAY YOU TO INVESTIGATE THE FEATURES AND ADVANTAGES OF THIS MACHINE.



TWO SIZES
11 x 7
12 x 7

It will plant any small seed from alfalfa to bearded oats, peas and beans without crushing the seed or permitting it to choke up in the seed box.

The general construction of this machine is exactly the same as the ordinary John Deere-Van Brunt Grain Drill, it having the exclusive features of all Van Brunt Drills, including the Van Brunt Adjustable Gate Force Feed.

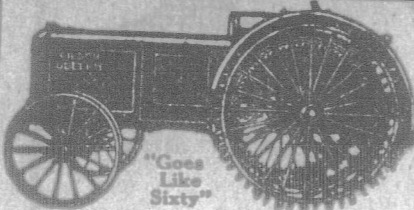
The Agitator Attachment keeps the contents of the fertilizer box in constant motion and a continuous flow into each and every feed tube is always certain.

SEE YOUR NEAREST JOHN DEERE DEALER, OR WRITE DIRECT TO

WELLAND JOHN DEERE MANUFACTURING COMPANY, LIMITED

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GILSON STANDARDIZED TRACTOR



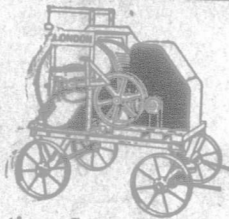
"Goes Like Sixty"
Great power, strong, durable, compact construction, light and handy. Wonderful draw bar pull, unsurpassed for belt work. Standardized throughout. A serviceable one-man Tractor that will make money for you 10-20, 19-25 and 18-30 h.p. Made in Canada. Write to-day for catalogue.
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579 York St., Guelph, Ont.

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THE GILSON SILO FILLER is the one blower which can be successfully operated with as little power as 4 h.p. There is a Gilson Silo Filler for every purpose—for the individual farmer, for the syndicate, and our latest capacity machine for the custom dealer.
We guarantee every Gilson Silo Filler to cut and elevate more ensilage with the same power than any other blower cutter.

Will Silo Filling Time find you ready?
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LONDON CONCRETE MIXER NO. 4

EQUIPPED WITH "Novo" Dust Proof Gasoline Engine
Capacity 40 cu. yds. per day.

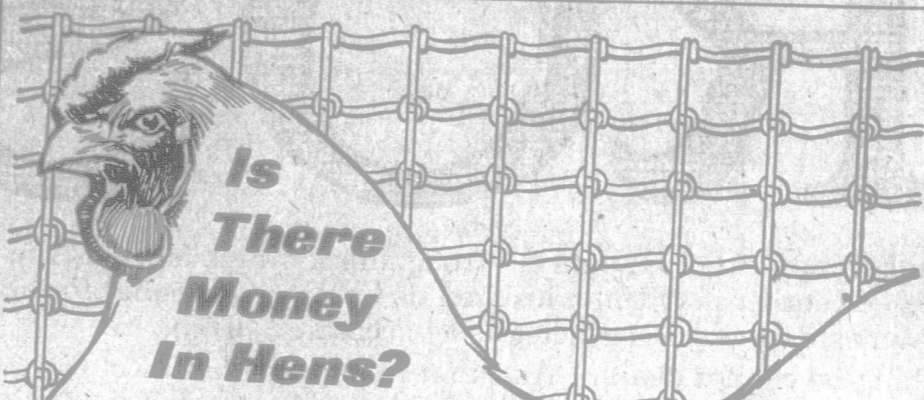
This machine is especially suitable for small jobs. It is built to last a life-time. Saves the price of itself in thirty days' use. Write for catalogue No. 1-K.
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World's Largest Manufacturers of Concrete Machinery.

Corn That Will Grow

Canadian-grown seed Corn.

Your money back if not satisfied.

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The Poultry Farmer thinks so—Poultry when properly cared for—properly Fenced—pays best. Poultry dollars will pay the war debt—better watch the dollars—a well fenced poultry farm is a splendid property for any Canadian, and Canadian farmers buying the best—building for business.

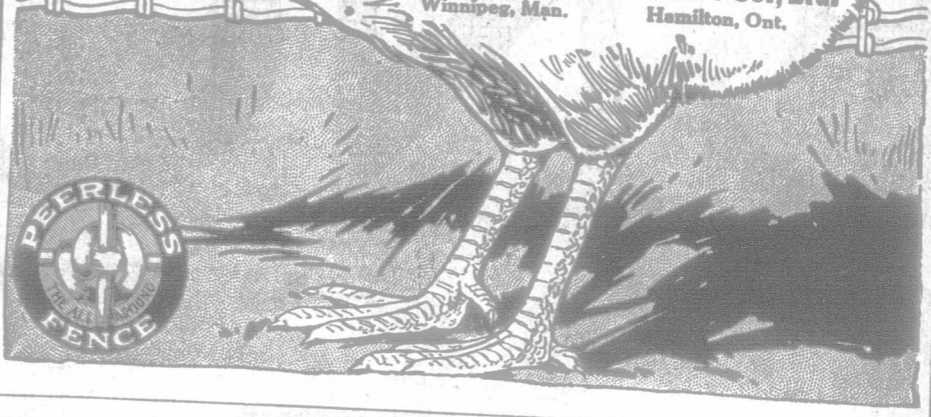
Peerless Perfection Poultry Fence

is true to its name, a perfect fence strong enough to keep strong animals out and close enough to keep even small poultry in. Every Peerless fence is guaranteed against sag, rust or break and we stand back of your dealer unconditionally. It is made of Open Hearth steel wire with all impurities burned out and all the strength left in. Well galvanized. Top and bottom wires are extra heavy. No top or bottom boards needed. Requires less posts than ordinary poultry fencing.

Send for catalog giving details. It also describes our farm fencing, gates and ornamental fence. All of our well known quality brands.

Agencies almost everywhere. Dealers wanted in unassigned territory.

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We will send a Gilson Engine, any size, without charge, to any responsible farmer in Canada to try out on his own farm, at his own work.

Write for further particulars of free trial offer, catalogue, and special introductory prices.

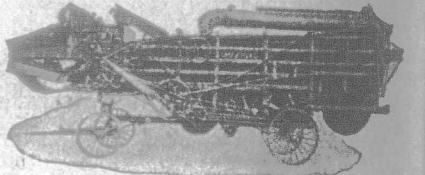
Gilson Manufacturing Co. Limited
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Tractors and Threshers



WATERLOO BOY

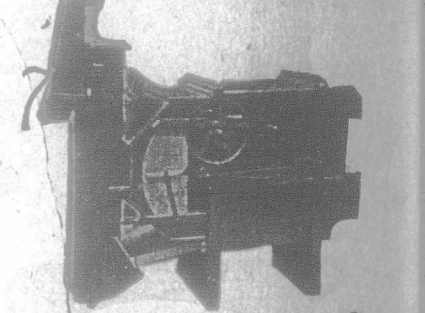
The Simplest, most Accessible, most Powerful 3-Plow Tractor on the market. Suitable for hauling & Plows, Threshing, Silo Filling and General Farm Work.



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.



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. Bestest mill to turn made. Write for particulars.

Kline Fanning Mill Co., Beeton, Ontario.

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THE Pelman Mind and Memory Course gives a better memory, trains observation, strengthens will power, gives self-confidence, develops initiative, originality, builds up an all-round mental and physical efficiency. Requires only few minutes a day. Write for free booklet.
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will plant any small seed from alfalfa to bearded oats, peas and beans without crushing the seed or permitting it to choke up in the seed box.

The general construction of this machine is exactly the same as the ordinary John Deere Van Brunt Grain Drill, it having the exclusive features of Van Brunt Drills, including the Van Brunt Adjustable Gate Force Feed.

The Agitator Attachment keeps the contents of the fertilizer box in constant motion and a continuous flow into each and every feed tube is always certain.

SEE YOUR NEAREST JOHN DEERE DEALER, OR WRITE DIRECT TO

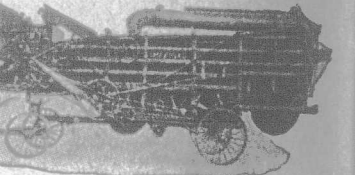
BEATTY BROS. LIMITED
ONTARIO

tractors and Threshers



WATERLOO BOY

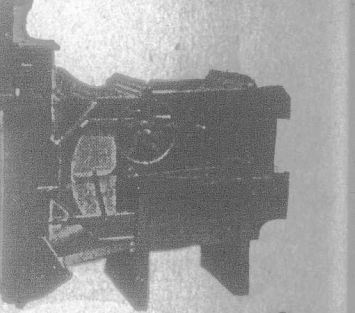
Simplest, most Accessible, most Powerful Tractor on the market. Suitable for hauling & Plows, Threshing, and General Farm Work.



Individual Farmers' Threshers, suitable for use by small Tractors and Gasoline Engines for own threshing. Keep your farm clear of expense. For free catalogue, prices, and any information write to:

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Seaford, Ont.

also Steam Tractors, and large size.



The Kline Mill

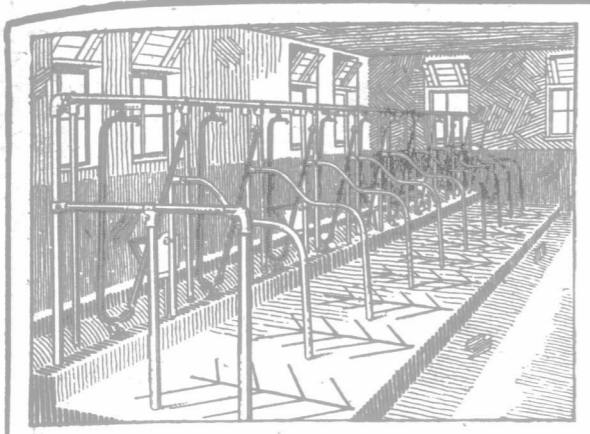
After inventor died, when new one was put on the market, it was sold at twice the price of the old one. The Public thought they would not get the Kline Mills, in vicinity of Beeton and ... It is the only mill that weighs and ... In separating wild oats has no capacity one hundred bushels as ... power attachment. Easiest mill to write for particulars.

Beeton Mill Co., Beeton, Ontario.

FORGETTING!

... and Memory Course gives a ... train observation, strengthens ... self-confidence, develops ... builds up an all-round mental ... Requires only few minutes a ...

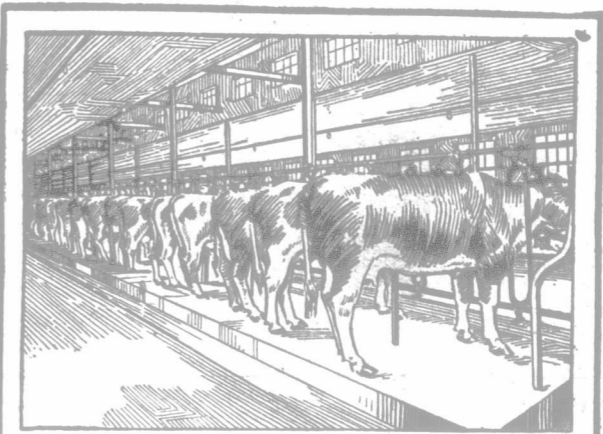
INSTITUTE Dept. E Toronto, Can.



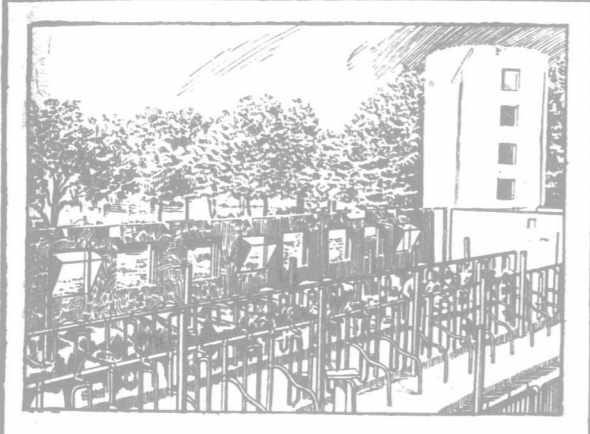
BT Sanitary Steel Stalls permit the sunlight to flood the stable freely. Sunlight kills disease germs. The steel stalls harbour no germs or vermin. They do not soak up liquid manure. Note the fine appearance of the stable.



Here is a poorly lighted, unsanitary barn of the old type where disease germs thrive. Tuberculosis germs thrive in dark, dirty barns. Liquid manure soaks into the old wood stalls and is one of the chief causes of tuberculosis.



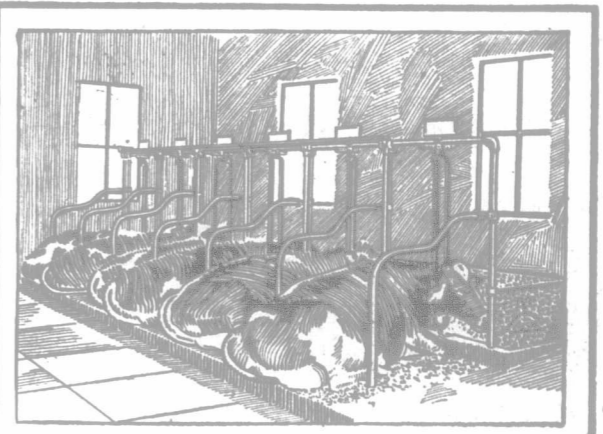
These cows are tied in the steel stalls. Note that they are lined up evenly with the gutter so that no manure falls on the cattle stand and none falls on the walks. This keeps the cows clean and saves much work in stable cleaning.



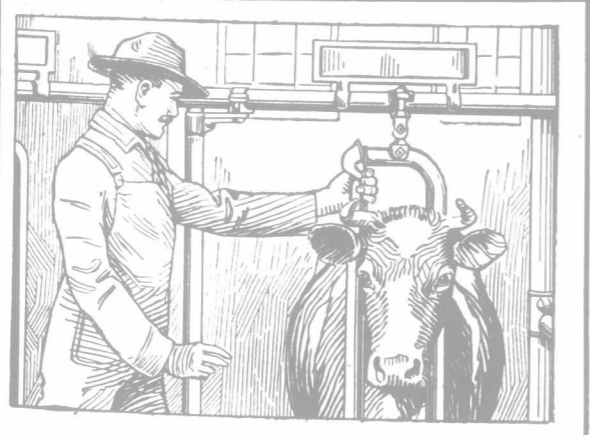
Here is the barn of Col. Robertson, Williamstown, Ont. It caught fire and burned to the ground, yet the steel stalls were uninjured, and after the fire the cows were tied up in their places and a photo taken. A few cents made the stalls as good as new. BT Stalls are fireproof.



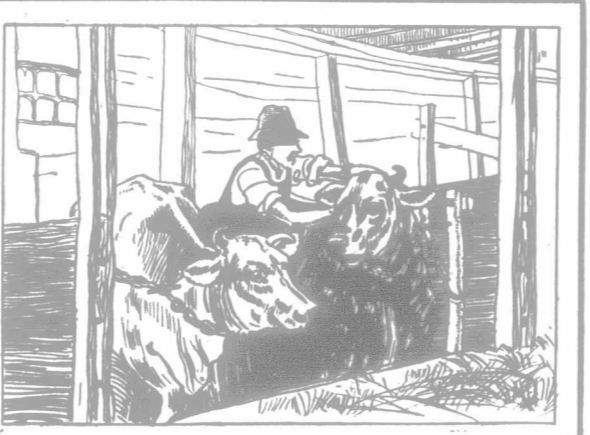
Here is what happens to the old style barn when it catches fire. The old wood stalls burn up like matchwood and everything is a loss. Not only that, but it is also difficult to get the cows out because they tug and jerk at their chains, making it impossible to undo the chains.



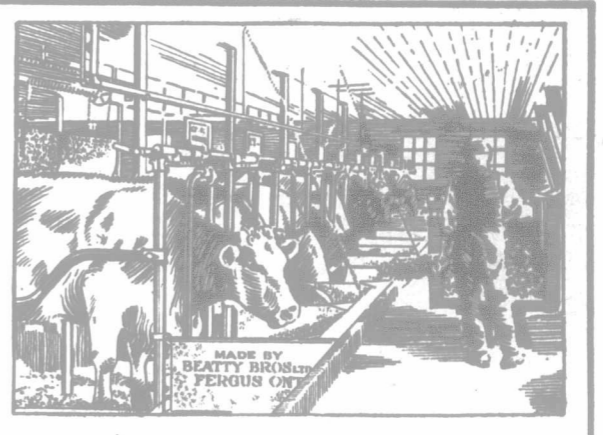
Cows when tied in steel stalls have absolute comfort. They can lie down on either side, turn their heads freely and card themselves back to their flanks. Cow comfort increases milk production. Cows will give 10% more milk when tied in these stalls.



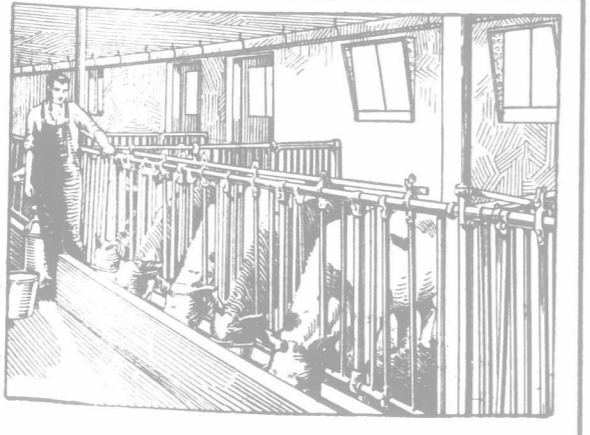
The BT Steel Stanchion is easy to open. This saves work and annoyance every day. You can open this stanchion with one hand. A whole row can be untied in less time than it takes to undo a single chain tie. This is very important in case of fire.



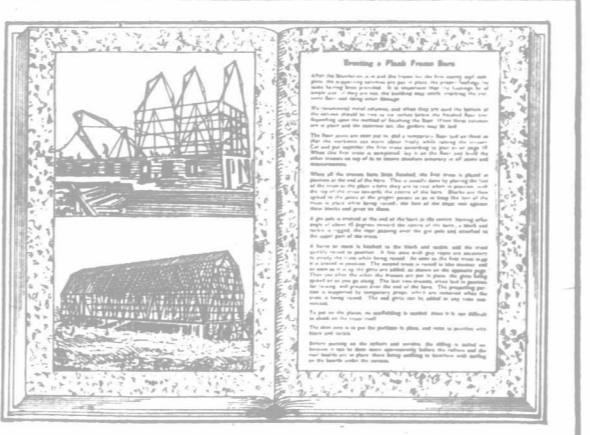
The old-fashioned chain tie is hard to open. This wastes time every day. It is a serious matter in case of fire, for the cow becomes terrified, tugs back and it is impossible to release her. In addition a chain tie is very uncomfortable for the cow.



Every cow has her own manger in this stable and cannot steal from her neighbor. The fast eating cow cannot gormandize at the expense of the slow eater. With the truck the cows can be fed in a very few minutes. The time work saved by up-to-date stable equipment pays back much of the cost.



Here are the BT Sanitary Steel Calf Pens. A whole row of the calf stanchions can be opened or closed at once. Each calf has a separate pail and cannot get another's portion. The steel pens are sanitary and durable.



The BT Barn Book is a well illustrated book of 352 pages and tells how to build a barn and fix it up. Every farmer who is building or remodelling should have a copy. It is free, if you will fill in the coupon and mail.

FREE COUPON

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Send me a copy of the 352 page BT Barn Book which tells how to build a barn and fix it up. You are to send it free if I fill in the coupon below.

Are you thinking of building? _____

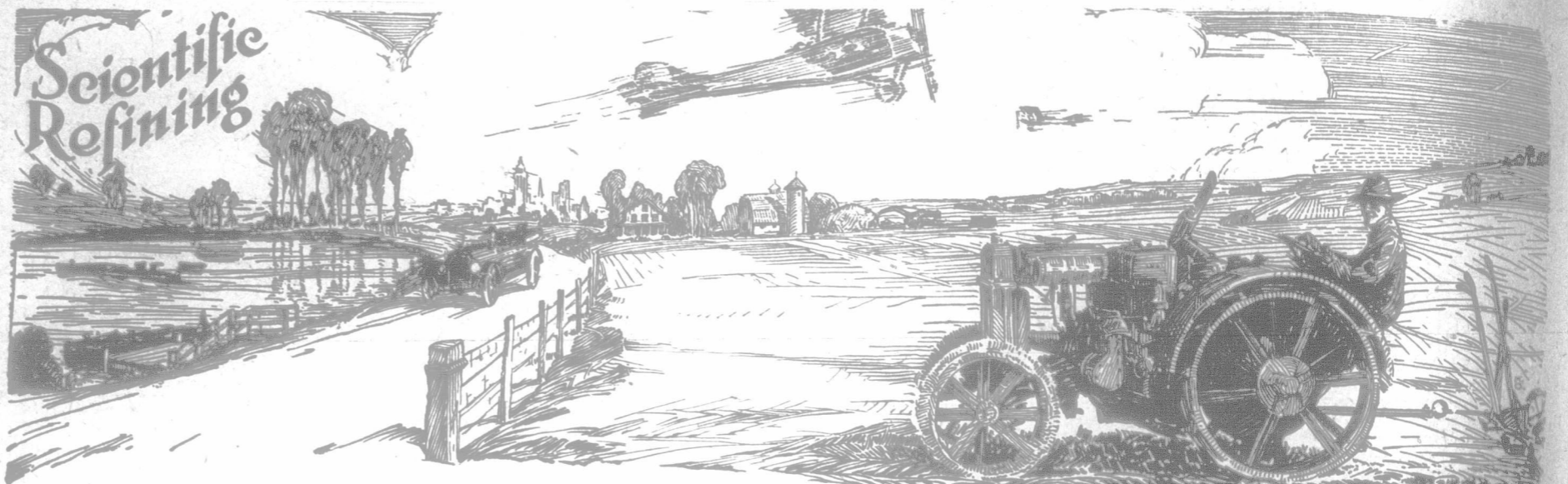
Or remodelling? _____

If so, when will you start? _____

Your name _____

P.O. _____

R.R. No. _____ Province _____



**Power Your Tractor, Automobile
and Other Motors With
En-ar-co National Motor Oil**

THE service rendered by En-ar-co petroleum products in aeroplanes and other motors of war can be duplicated in *your* tractor, automobile, gas engine or other power machinery. You can experience the same increased power, longer wear and smoothness of operation. You can benefit by nearly 40 years of experience in Scientific Refining.

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Thousands of gallons of En-ar-co National Motor Oil have been used in aeroplanes here and over-seas. The work a lubricant must do in these motors is far greater than will ever be required by your motors. But only the best is good enough. You cannot afford to take chances.

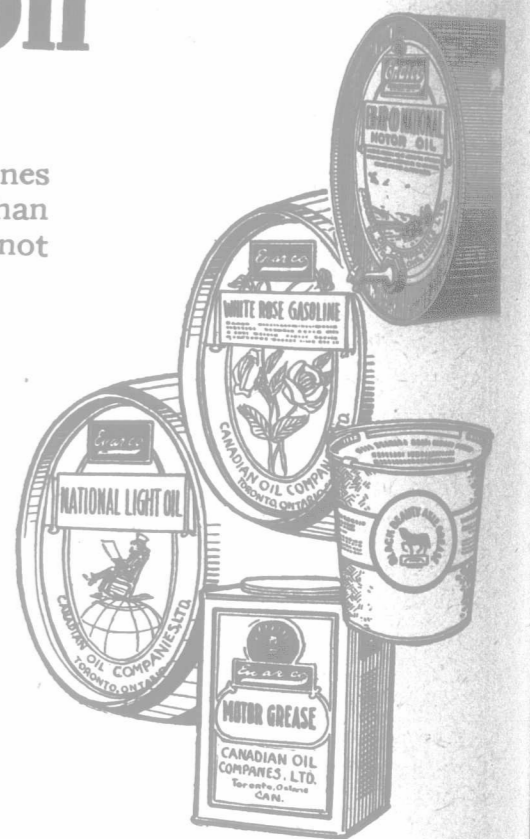
- In wood barrels (average 50 gals.)
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White Rose Gasoline has an unmatched record for high power and dependability. Its continued use brings utmost mileage and economy.

For oil powered tractors National Light Oil is recommended by leaders and authorities. Also best for lamps, oil stoves and incubators.

The need for several kinds of grease has been eliminated by En-ar-co Motor Grease. It gives perfect lubrication for all purposes around the tractor or motor car.

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Products in Stock—If He Cannot Supply
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Start the season right. Insist on En-ar-co Products. Ask the dealer nearest you. If he has not yet received his stock, send us your order on the attached coupon. Don't be satisfied with less than En-ar-co — the best.

*Longwear Barn, Bridge and Roof Paint for lasting satisfaction.
Put up in barrels and half-barrels. Write for color card and prices*

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**Use
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Send This Order Coupon Now!

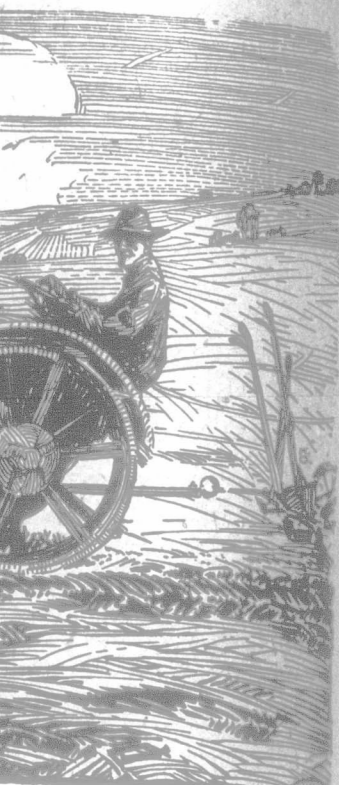
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Our Guarantee:

IDEAL FENCE is guaranteed to be exactly as represented. If you are not satisfied with "IDEAL," send it back at our expense, and we will return your money. This guarantee covers everything—no conditions, no loopholes.

REFERENCE: ANY BANK OR BANKER.

Fence, Farm Gates, Brace Wire, Barb Wire, Etc.

Freight paid to your nearest railway station (except electric) on all orders of \$15 or over. Remit by Bank Draft, Post Office Order or Express Order.

Heavy "IDEAL" Fence

Made throughout of Full Gauge No. 9 evenly Galvanized Hard Steel Wire. Carried in stock in 20, 30 and 40-rod rolls.

- No. 4330 4 line wires, 33 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 11, 11, 11. Per Rod..... **30c.**
- No. 5400 5 line wires, 40 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 10, 10, 10. Per Rod..... **37½c.**
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- No. 8420 8 line wires, 42 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 6, 6, 6, 6, 6, 6. Per Rod..... **56c.**
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- No. 847 8 line wires, 47 inches high, uprights 16½ inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 4, 5, 6, 7, 8, 9. Per Rod..... **63c.**
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- No. 9500 9 line wires, 50 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 4, 4, 5, 6, 7, 8, 8, 8. Per Rod..... **63c.**
- No. 950 9 line wires, 50 inches high, uprights 16½ inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 4, 4, 5, 6, 7, 8, 8, 8. Per Rod..... **69c.**
- No. 1050 10 line wires, 50 inches high, uprights 16½ inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 3, 3, 3½, 4½, 5½, 6½, 8, 8, 8. Per Rod..... **75c.**

MEDIUM HEAVY "IDEAL" FENCE

Made throughout of Hard Steel Wire, evenly Galvanized. Carried in stock in 20, 30 and 40-rod rolls.

- No. 630 6 line wires, 30 inches high, uprights 16½ inches apart. All Hard Steel Wire, evenly galvanized. Spacing 4, 5, 6, 7, 8. Per Rod..... **30c.**
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- No. 6410 Same as Style No. 641 with uprights 22 inches apart. Per Rod..... **29c.**
- No. 726 7 line wires, 26 inches high, uprights 13 inches apart. All Hard Steel Wire, evenly galvanized. Spacing 3, 3½, 4, 4½, 5, 6. Per Rod..... **34c.**
- No. 7261 Same as Style No. 726, but with uprights 8 inches apart. Per Rod..... **40c.**
- No. 7266 Same as Style No. 726, but with uprights 6 inches apart. Per Rod..... **45c.**
- No. 834 8 line wires, 34 inches high, uprights 13 inches apart. All Hard Steel Wire, evenly galvanized. Spacing 3, 3½, 4, 4, 5, 6½, 8. Per Rod..... **42c.**
- No. 936 9 line wires, 36 inches high, uprights 13 inches apart. All Hard Steel Wire, evenly galvanized. Spacing 3, 3½, 4, 4½, 5, 5½, 6. Per Rod..... **43c.**
- No. 949 9 line wires, 49 inches high, uprights 13 inches apart. All Hard Steel Wire, evenly galvanized. Spacing 4, 4, 5, 6, 7, 7, 8, 8. Per Rod..... **48c.**
- No. 1150 11 line wires, 50 inches high, uprights 13 inches apart. All Hard Steel Wire, evenly galvanized. Spacing 3, 3, 3, 4, 4, 5, 6, 7, 7, 8. Per Rod..... **54c.**
- No. 1448 14 line wires, 48 inches high, uprights 13 inches apart. All Hard Steel Wire, evenly galvanized. Spacing 2½, 2½, 2½, 2½, 2½, 3, 3½, 4, 5, 5½, 5½, 6. Per Rod..... **64c.**
- No. 1848 18 bar, 48 inches high, cross-bars 8 inches apart. All Hard Steel Wire, evenly galvanized. Spacing, from bottom up, 1½, 1½, 1½, 1½, 1½, 2¼, 2¼, 2¼, 2¼, 3, 3, 3½, 3½, 4, 4½, 5. Per Rod..... **80c.**
- No. 2060 20 bar, 60 inches high, cross-bars 8 inches apart. All Hard Steel Wire, evenly galvanized. Spacing, from bottom up, 1½, 1½, 1½, 1½, 1½, 2¼, 2¼, 2¼, 2¼, 3, 3, 3½, 3½, 4, 4½, 5, 6, 6. Per Rod..... **88c.**

"IDEAL" Lawn Fence and Lawn Gates

Write for Price List and Catalogue.

Improved "IDEAL" Farm Gates

Horizontal wires all No. 9, only 6 inches apart. Uprights No. 12 wire, 6 inches apart. Diagonals No. 13, furnish a strong, close mesh chicken-proof and pig-proof. New patented brace tightener and latch—the biggest gate improvements in years.

Length, feet	Height, inches	Price
3	36	\$3.15
3	42	3.30
3	48	3.40
3½	36	3.30
3½	42	3.40
3½	48	3.75
4	48	4.00
10	36	6.75
11	42	7.00
10	48	7.25
12	42	7.25
12	48	7.75
13	48	8.00
14	48	8.25
16	48	8.75

Improved "IDEAL" Stock Gates

Wire filling No. 9 throughout, same as Heavy "IDEAL" Fence. No fence filling used. Each wire put in by hand.

Carried in stock in following sizes only:

12 feet long, 51 inches high, each.....	\$7.25
13 feet long, 51 inches high, each.....	7.50
14 feet long, 51 inches high, each.....	7.75

Fence Supplies, Brace Wire and Barb Wire

Ideal Steel Posts, 1½ x 1½ x 7' long.....	\$0.55
Ideal Fence Stretcher, each.....	9.00
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Universal Post Hole Digger, each.....	2.75
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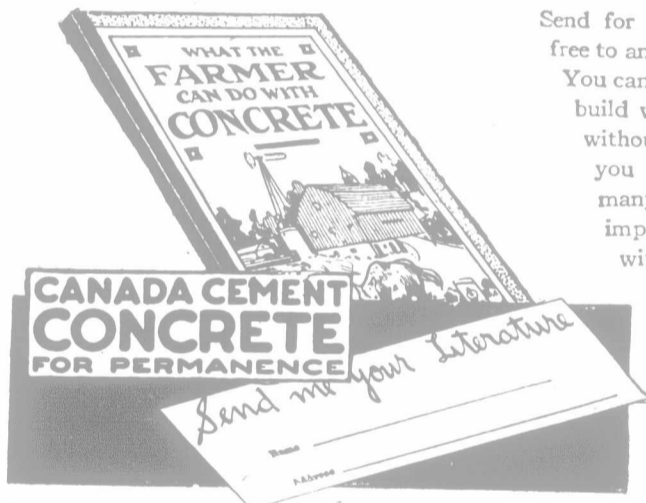
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NO one will be found to dispute the assertion that concrete is the ideal material for either Root House or Granary. The illustrations show how one Canadian farmer combined the two in one building—thus ensuring splendid housing for his winter's supply of vegetables, and a granary that cannot be entered by rats or affected by weather or temperature changes. His root house occupies the lower floor of this simple and easily-constructed building—and by sloping the ground surrounding it he has secured a ground-level entrance to the upper floor which is his granary. Size of this building, 14 feet wide and 19 feet deep.

PROPER provision should be made to store and protect the root crop, and thus not only can a supply be kept for home use, but quantities which would otherwise be sold at low prices, can be held over until spring, when a higher market price prevails for these commodities.

Root houses should be built in the ground as protection from the cold is thus afforded, and less effort is required to keep them warm.

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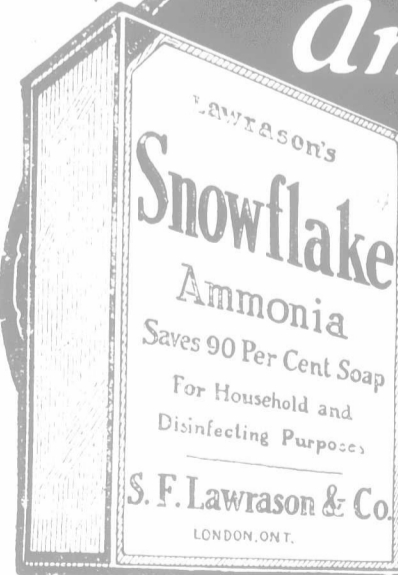
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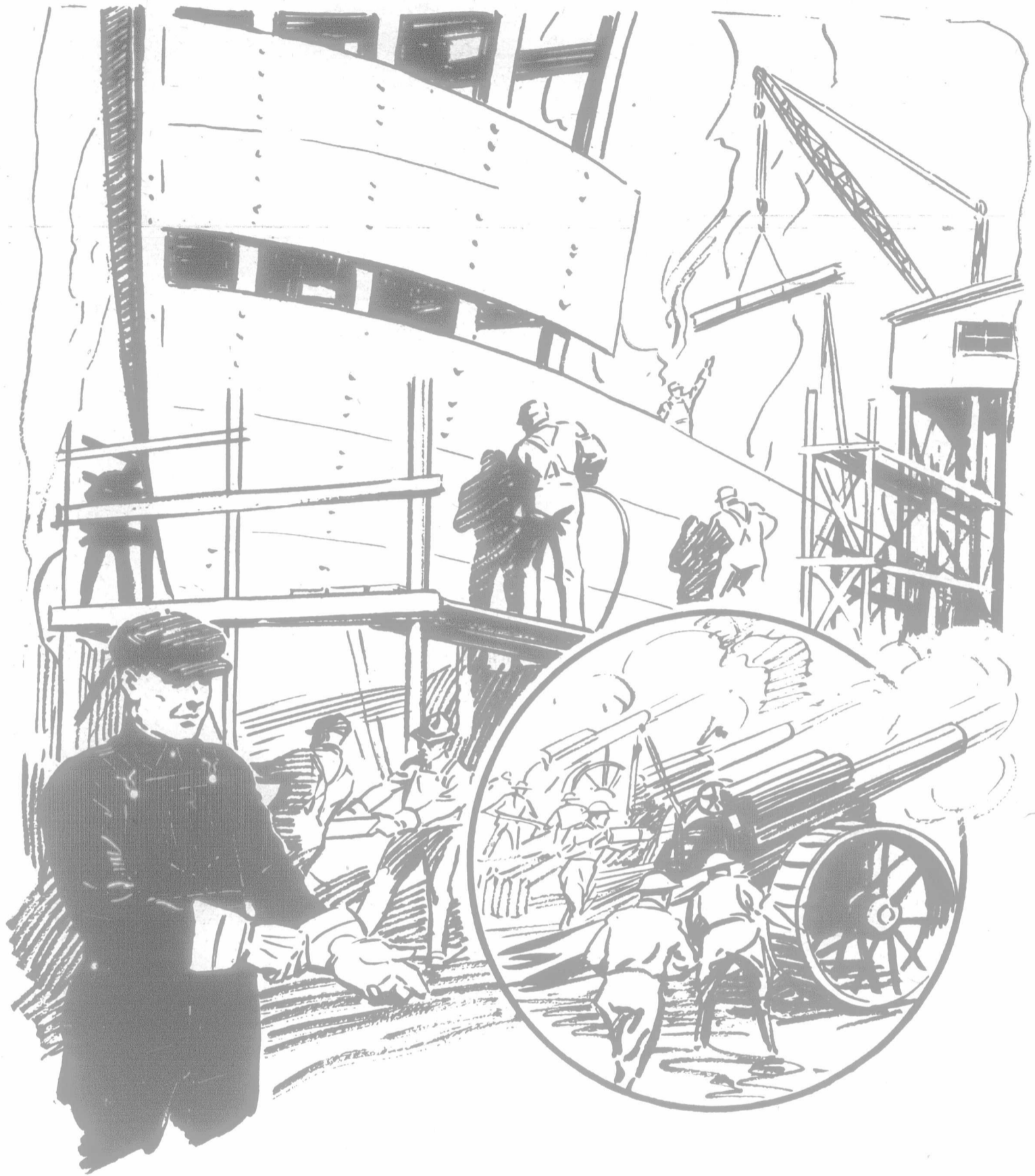
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The Farmer's Advocate and Home Magazine

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LIV:

LONDON, ONTARIO, MARCH 13, 1919

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EDITORIAL.

Sparks are now flying from the political anvils.

Europe will have to quiet down soon or next winter will see empty cupboards there again.

Don't allow spring to take you unawares. Have the seed grain cleaned and the implements in repair.

Pullets hatched late in March or early in April make the best winter layers. Speed up the broody hens!

Germany certainly needed a greater chastisement than she got from the Allies, but the punishment is coming from within.

If R. O. P. work is commenced with poultry the inspectors will be able to look a hen in the face and make her confess to any misrepresentations in her alleged production.

The present sessional indemnities to parliament members would probably be sufficient if they attended to the people's business with the same dispatch as they do their own when at home.

Canada should keep every high-class, pure-bred sire in the country and raise the standard of quality so we can more successfully compete with our rivals on the markets where we dispose of our products.

Farmers who are obliged to hire help should give the farm-cottage idea a very thorough consideration. A small house for the hired man makes it much more pleasant for all concerned and, furthermore, it makes it possible to employ a more experienced class of help.

A woman's organization in Brantford, Ontario, asked that military training be continued in the city schools after a council composed of men had seen fit to abolish it. This is disappointing when we have been looking to woman suffrage as a means of establishing universal peace.

Without taking into consideration the effect of "The New Magna Charta of Labor" on conditions generally, it is easy to see how it will tend to make the various nations more of a unit unto themselves. Industries in all the countries involved will be working on a basis of international parity so far as the hours of labor are concerned, but, of course, the price of labor will affect competition between nations. In spite of the hour standard, farmers in all countries will have to make hay while the sun shines.

The West is divided on the question of price-fixing in regard to wheat. Many growers require protection in order to survive the effects of several lean years, and more than that, they know the price was set for the 1918 crop to keep it down rather than up. There is still another class of beginners, including many unfortunate settlers, who consider theirs an "infant industry" and, according to Canadian traditions, entitled to protection. The United Grain Growers believe that the most desirable method of marketing our 1919 wheat crop would be for the Dominion Government to sell our exportable surplus of wheat and flour at a fair price, based on world values, to the British and Allied Governments. Such a price, mutually agreed upon by the farmers of Canada and the Allied Governments, could be made a fixed price until August 31, 1920, and would, of course, govern the price of flour and wheat for domestic use in Canada. The Grain growers are opposed to opening the wheat market on the old basis, which allows unrestricted speculation.

Farmer Members in Parliament.

Readers will find the analysis of the House of Commons, published in last week's issue, exceedingly valuable for future reference. The last column, particularly, has a direct bearing on the legislation which is likely to be enacted, for therein is shown where the interest of the majority of the members lies. By giving every would-be farmer the benefit of the doubt and including all those who acknowledge any connection with the soil, there are 35 farmer members. Of these 23 come from west of the Great Lakes, and 12 from the eastern provinces. Prince Edward Island sends 1 farmer to Parliament, and in this regard she is just one ahead of Nova Scotia; New Brunswick sends 2; Quebec sends 3, and Ontario 6. There are 4 Manitoba farmers in the House, 10 from Saskatchewan, 5 from Alberta, and 4 from British Columbia.

Agriculture being the "backbone" of the country, one would naturally expect to see its representatives predominate in the House of Commons, and if there were more farmers there and fewer lawyers the debate on the speech from the Throne would have occupied less than half the time it did. Experience would have taught them to "make hay while the sun shines," and they would have proceeded to enact some of the legislation presaged in the opening address of Parliament. Instead of getting down to business the House has been subjected to long-winded speeches, and now a larger sessional indemnity becomes a necessity in order that members may remain in Ottawa and enjoy these oratorical pastimes.

R. O. P. Poultry Work.

Among other things accomplished at the recent Dominion Poultry Conference held at Ottawa under the auspices of the Dominion Department of Agriculture, was a concrete proposal for the establishment of Record of Performance work in poultry. To a great many people this will appear an impossibility on the face of it, because of the fact that trap-nesting can be employed by comparatively few persons, and because this is the only way by which the performance of a hen can be arrived at with accuracy. There are, however, more sides than one to the question, and it is in no small measure due to the quiet but persistent efforts made in recent years by poultry investigators and enthusiasts in the direction of a scientific and systematized study of egg production, that such a seemingly impossible task as R. O. P. work with poultry seems now to offer fair chances of success.

Whether the recommendations of the Conference are acted upon by the Dominion Government or not, the scheme will be tried out in Canada, since, although the work is obviously Dominion in scope and there appears no reason why the Federal Government will not undertake it, the Province of Ontario is prepared to go ahead with it, should the Department of Agriculture at Ottawa not see fit to do so. It now appears possible to do this work successfully by checking the trap-nest records of flocks through a system of flock inspection. Expert inspectors will be able, by a physical examination of the individuals in a flock, to tell whether or not the egg record, as kept by the owner, is substantially correct. Recent advances in poultry husbandry now make it possible to tell with almost uncanny accuracy how many eggs a hen has laid, or will lay.

One of the most marked advantages to be derived from a system of R. O. P. records in poultry should be to bring the fancier more nearly on a utility basis. The eggs of the country are produced from the average farm flock, and yet the breeder of fancy stock is the logical source of supply for improved stock. He has been inclined during the past, however, to sell eggs from his whole flock on the basis of the records made by a very few individuals. A real utility basis is needed badly, and while, during the last three or four years

fanciers have been forced to travel in the direction of greater utility, many of them have failed utterly to realize that the modern hen is a worker and not merely an ornament. It will take some years for any R. O. P. work that may be started, to make itself manifest, but we can see no reason why such records should not do as much for the poultry industry in Canada as milk records have done for the dairy industry. As a matter of interest, it is also worth noting that Canada will be the first country to have initiated this progressive step in poultry raising.

"Alfalfa Versus Sweet Clover."

In the Farm Department of this issue a note of warning is sounded, regarding sweet clover, by the Central Experimental Farms, where considerable fear seems to persist regarding a crop which farmers (in spite of the doubt and indifference shown by experiment stations regarding it) have proved to be a valuable pasture crop and soil renovator. Alfalfa is held up as superior and preferable to this variety of clover, which is quite correct, but alfalfa has been talked and tried for more than 15 years and its limitations are pretty well understood. Taking all things into consideration, alfalfa, if it can be grown, is superior to sweet clover, but it has been found that on a great many farms alfalfa will not stand, and the whole question hinges on this point. Knowing the shortcomings of alfalfa under their own peculiar circumstances many farmers set out to investigate sweet clover while the experiment stations pooh-pooed the idea. The outcome is that the "weed fear" has been dissipated. It has been found a splendid pasture crop, and, in this regard, a real test might show it to be superior to alfalfa. As far as "its peculiar flavor" is concerned, our milking herd pastured on it last summer and no strange flavor was detected when the milk and cream were used in the house, neither did the creamery where we sold the cream raise any objection. Sweet clover can be adapted to a short rotation better than can alfalfa, and as a soil renovator sweet clover leads again, because it will thrive on poor soil where alfalfa will have a struggle to live.

We do not wish to belittle the value of alfalfa. Where it can be grown successfully a farmer is not wise to displace it with sweet clover, but we desire to show the latter crop up in its true light. Sweet clover shines as a pasture crop and as a soil renovator, and from our experience with it we would not hesitate to recommend it for these two purposes.

Getting in Deeper.

The war is practically over and now, it is said, "prices must come down." Many have considered that agricultural products were enormously high and would like to see them the first to drop. Two or three prices for a spring overcoat or a pair of shoes causes little concern, but \$1.25 to \$1.50 for a bag of potatoes causes a wail to be emitted that would soften the heart of a plutocrat. The Provincial Government recently completed a farm survey in the County of Oxford, where it was found that farmers received \$2.19½ per hundredweight for milk which had cost \$2.17 to produce. If there is any other industry in Canada that will operate on as small a margin, the directors and shareholders are entitled to a knighthood and their names should be inscribed in the Hall of Fame.

When prices, for one reason or another, soar too high the practice has been to use a broad-axe on the value of agricultural products, while the prices of manufactured goods have been smoothed off slightly with a very fine quality of sandpaper.

Apparently the Dominion and Provincial Governments intend to engage in an orgy of building. This, of course, will give employment to many, but it will

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VANCOUVER

The Farmer's Advocate and Home Magazine.

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

Published weekly by
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JOHN WELD, Manager.

Agents for "The Farmer's Advocate and Home Magazine",
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probably keep the value of labor so high that farm help of a suitable kind will not be available, and, more than that, farms will be abandoned in order that the owners may share in the temporary prosperity accompanying such building schemes. Unless considerable attention is paid to agriculture so it will be enabled to employ, with profit, a goodly amount of help, and unless a fair percentage of labor is willing to engage in farm work there is little chance of the price of farm produce coming down, for production will drop to a low ebb. We recently heard a retired farmer, who had been working at carpenter work at 50 cents per hour, say that he never had so much money in his life. This is a feeling which is all too prevalent and one which an extravagant building program will only accentuate. Agriculture should be made the big thing, now that we have heavy interest charges to meet and a stupendous mortgage to discharge. The Government housing scheme and the immense building program will only tend to keep the cost of living at a high level and plunge us deeper into debt.

If a large building program is the only means of preventing unemployment, let the labor so utilized be engaged in the erection of cold storages, abattoirs, interior Government elevators, local warehouses with refrigerator space for accommodating perishable farm produce, and other buildings that will help us along in this great campaign for production. Do something for the farm and it in turn will do something for the nation. Ontario has asked for a large public elevator. An abattoir and cold-storage facilities are needed at Halifax. Such as these will yield a greater revenue than palatial post offices erected to adorn some city lots, and they will bring more real prosperity to the country than large custom houses, which should be reduced in size rather than increased. Hospitals are necessary, our educational institutions must be enlarged, but all this building will not bring quiet and contentment. Everything has a fictitious value; we are living in a make-believe world. Some day we shall waken from this dream to realize that in the soil of Canada is our wealth, and upon it labor must be expended in order to bring forth that which will feed the people and pay off our national debt.

Daylight Saving Keeps Sandy Awake.

BY SANDY FRASER.

It's that Daylight Saving Act that's keepin' me awake at night these times. Jean asked me the ither night what wis the matter that I wisna makin' the windows rattle wi' my snoring, as usual. "Oh," says I, "I hae got to worryin' 'bout the danger of o' Civil war in this great country o' ours. It will be an awfu' thing if the farmers and the city-folks get to fightin' over the question of which o' them is gaen' to rin the clock. The city-folks want tae put it ahead an hour, the way we had it last simmer, and the farmers want to leave weel enough alane. I'm afraid somebody's gaen' to be hurt, an' us juist gettin' over that scrap wi' the Kaiser that we got intae."

"Gang tae sleep," returns Jean, as though I wis a bairn. "It's only in the dark that ye coul mak' yersef' worry about a thing like that. Leave it aff till tomorrow onyay."

Sae the next day I got tae thinkin' aboqt the matter in earnest and wonderin' if there wis ony way to bring about an armistice between oor friends in the toons and ourselves, that might settle the point in regard to what hour we should get oot o' bed in the mornin'.

For mysel', when it comes tae gettin' aroond or over a difficulty, I generally tak' the line o' least resistance, as they say, and on the whole it hasn't warked sae badly. When there's na ither way to get yer rights I believe in fightin' for them tae the last ditch, but ither times I believe in bein' reasonable an' arguin' the case out to a sensible conclusion.

Sae last spring, when the Government informed us that they were gaen' tae pif the sun back an hour unless we moved oor clocks ahead, I says tae the chap that warks wi' me, says I, "what dae ye say Jim, aboot settin, yer watch by Borden this summer and gettin' up in the mornin' when it says six o'clock, instead o' at five, as we hae been use to daein', and then finishing up the day at seven o'clock instead o' sic?"

"It's a' the same tae me," says Jim. "I canna see that it maks ony difference sae long as I dinna look at my watch an' get tae worrying aboot it. What ye dinna bother aboot willna dae ye muckle harm."

Sae, last simmer, we kept the auld clock up tae date but we waited till it was six before we turned oot to gang for the coos in the mornin', and then in case we might no' be able to dae justice tae oor dinners the auld wumman use to call us frae the field at twelve instead o' at eleven, as used to be her habit. After that it wis na mair than ordinary hardship tae worry along till seven in the evenin' by which time I used tae count on havin' the chores oot o' the road and be in a fair way to makin' a start at my supper.

And it's no every farmer that can get his help tae see things in the light that maks them willin' tae wark later than six o'clock at night. This is where the chap that wants to stick to the auld time gets his best argument. The auld saying wis, "mak' hay while the sun shines" and it never shines better than it does sometimes between six and seven o'clock in the evenin'. In fact, it's the best time o' the day to be on the job. Ye ken ye're soon goin to quit, ye see. It's juist aboot the time some farmers seem to get doon to business.

There's anither man I hae some sympathy for, too. That is the chap that's shipping milk into the city and has to get his coos milked and the milk cooled and carted to the station in time to catch the morning train that always seemed to run plenty early enough on the auld time, but which, on "Borden's time," is what ye might call an "eye-opener." And there's mony anither branch o' the farmin' business that has been tellin' o' the way it wis pit oot o' joint by this meddlin' wi' the clock. In fact I'm thinkin' that it will tak a pretty hardy Government to pass ony measure o' the kind in this country again for a while. They say the politician aye has his ear to the ground, and, gin that's the case juist now, he ought tae hear somethin' that should gie him an idea in regard to what direction the wind is comin' from. Onyway, gin I wis a member o' Parliament an' representin' a constituency where there wis a guid bunch o' farmers among the voters, I think I'd vote in favor o' keepin' oot o' any mix-up between the clock an' the sun, that is, if I wanted tae hang on to my job. And I notice that maist o' the chaps, that we send up tae Ottawa tae represent us in the Hoouse there, dinna mind being asked to gae back for a second term.

But after all, tae gae back to what I wis worryin' 'bout in the first place, it's an unco pity that we farmers an' the folks in oor towns an' cities, canna mak' oot tae be on better terms wi' ane anither. A guid mony things hae come between us o' late years. I read a letter the ither day frae a city man in which he made oot that the farmer wis aboot the only real specimen o' a dyed-in-the-wool profiteer an' money-grabber to be found in civilized countries to-day. Of course this chap never thought to inquire as to how much sweat the farmer loses in the process o' gatherin' in his profits, and frae the distance it's kind o' hard, sometimes, to see mair than one side o' a question. But such letters comin' frae the town are no' calculated to promote guid feelin' and the replies that are sent tae them don't aften mend matters. There's a chance that they may hae a wee bit o' ground for some o' their charges, for I hae known o' some farmers that were never to say what ye wad call too close-fisted until after they got their first money laid awa' in the bank. The mair we get the mair we want, gin we dinna watch ourselves, and first thing they hae us doon for a "money-grabber." It's unco easy to pick out the faults in oor neighbors and it's a pity there's sae much o' that sort o' thing gaen' on between us an' the cities. I'm thinkin' we will hae to call a Peace Conference. And hae a

few clock and watchmakers on it to settle oor little difference in time.

Nature's Diary.

A. R. KLUGH, M.A.



The skunk has—now emerged from its winter den and is wandering about seeking field mice or hibernating insects. We have three species of skunks in Canada—the Canada Skunk, which ranges from the Atlantic as far west as the forested portion of Manitoba, the Northern Plains Skunk, which is found from Manitoba to the Pacific Slope, and the Puget Sound Skunk, which occurs in the extreme southern part of the Pacific coast. In the Canada Skunk the tip of the tail is white, while in the other two species the tip is black; the former species average about twenty-four inches in length, while the other two are twenty-eight inches or over in length.

The chief interest in the skunk centres in its most efficient method of defending itself. A skunk is not afraid of anything, it travels well armed and it knows it, and all the wild flesh-eaters know it too and will not attack a skunk unless rendered desperate by hunger. The "smell-gun" of the skunk consists of two musk-glands, the ducts of which open within the rectum, but can be protruded for action. So powerful is the fluid ejected from these glands that it causes temporary blindness if it gets into the eyes, and a choking and burning sensation if it reaches the nostrils. This gun is a "repeater," as a skunk can fire about a dozen "shots" in succession, and can shoot forward, over its head, as well as backward. The spray can be thrown a distance of about six feet, or if with the wind, some ten feet. A skunk usually gives three warnings before it fires—first by stamping the feet, second by raising the tail all except the tip, and third by raising the tip of the tail. Naturally if suddenly attacked these warning motions are omitted.

The word "skunk" is derived from the name of this animal among the Abenaki tribe—Seganku.

The home of the skunk is a burrow, usually located on a hillside, or a den among the rocks. Sometimes it excavates its own burrow, but often uses one made by a groundhog or badger, or enlarges a burrow of a ground-squirrel. A nest of soft grass is made at the end of the burrow.

The young, which usually number from 4 to 6, are born about the end of April or early in May. At birth they are about the size of a mouse, and are naked but show the characteristic pattern; they are blind and the ears are closed. The musk-glands become functional when they are about a month old, and at three months they are able to defend themselves as well as an adult. In fact, a young skunk is far more likely to "shoot" than an older one, as it has apparently not yet learned that it is usually enough to threaten. The young remain in the den until about mid-summer when they begin to follow the mother about. Seton says that the father rejoins the family at about this time, and they wander about their range every night, retiring to some retreat at dawn. By October the young are full grown, and the family spends the winter together in their den, hibernating some time in November and emerging early in March. The young scatter in the spring and they apparently breed when a year old.

The main food of the skunk consists of insects, chiefly locusts, grasshoppers and crickets, and field mice. But it also takes anything in the way of animal food that it comes across—ground-squirrels, crayfish, frogs, the eggs of ground-nesting birds, and such birds as it can surprise and capture. On the whole, it undoubtedly does far more good by its destruction of mice and insects than it does harm by bird-killing and egg-eating.

Contrary to the usual opinion skunks make very good pets, being interesting, gentle, playful, affectionate and cleanly. By an operation on the ducts of the musk glands they may be rendered incapable of "shooting," but Dr. C. Hart Merriam, of the U. S. Biological Survey, who has kept many of them as pets, says that most of his skunks were not operated upon and that "none of them ever emitted any odor, although a couple of them, when half grown, used to assume a painfully suggestive attitude on the too near approach of strangers—so suggestive indeed that the visitors commonly beat a hasty retreat." Writing of one of his pet skunks, "Mep," which had been operated upon, Dr. Merriam says: "While driving about the country he usually slept in my pocket. After supper I commonly took a walk, and he always followed close at my heels. We used to walk to a large meadow which abounded in grasshoppers. Here "Mep" would fairly revel in his favorite food. When a grasshopper jumped, he jumped, and I have seen him with as many as three in his mouth and two under his fore-paws at once. He would eat so many that his over-distended little belly actually dragged on the ground. . . . His nest was in a box at the foot of the stairs, and before he grew strong enough to climb out by himself he would, whenever he heard me coming, stand on his hind legs, with his paws resting on the edge of the box, and beg to be carried upstairs. If I passed without appearing to notice him, he invariably became much enraged and chattered and scolded away at a great rate. He was very sprightly and frolicsome, and used to hop about the floor and run from room to room in search of something to play with. He would steal softly up to my chair, and, standing erect, would claw at my pants, and then scamper off as fast as his legs could carry him."

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THE HORSE.

Leg Ailments in Horses.

Continued.

Lymphangitis.

Next to erythema (which has already been discussed) lymphangitis is probably the most common "leg ailment." It is a dietetic disease, usually induced by heavy feeding and want of exercise. It is known by a variety of names, as "weed," "a shot of grease," and "Monday morning disease." It consists in inflammation of the lymphatic glands, usually of one or both of the hind legs, but in some cases the fore limb or limbs are attacked. Some horses are congenitally predisposed to an attack, which in horses that are at regular work and slightly fed, follows a rest of a day or two, during which time the animal has been given his usual grain ration. In rare cases it occurs without rest, and is then supposed to be due to a highly-fibrinous condition of the blood; and it is occasionally noticed in horses in poor condition, in which case the pathology is hard to explain.

Symptoms.—The local inflammation is usually preceded by rigors (a shivering fit), which often occurs at night, hence is not noticed. This may continue for hours, and as a rule the severity of the attack is denoted by the intensity of the rigors, which is accompanied by more or less restlessness. Lameness in the affected leg is manifest at an early stage. The rigor is succeeded by well-marked increase of temperature. The patient now breathes hard, and sometimes perspires freely, paws and may exhibit symptoms resembling those of colic. The pulse is full, strong and frequent; the visible mucous membranes injected; bowels constipated, and the secretion of urine scanty and highly colored.

The local inflammation is manifested by swelling of the inguinal glands (those on the inner surface of the thigh) when the hind extremity is affected; and the brachial glands (those on the inner surface of the fore arm) when in the fore limb. In many cases the first symptoms are observed when the teamster or groom goes to the stable on Monday morning, after the horses have rested since Saturday evening, or any morning following a rest of a greater or lesser period. He asks the horse to move, and then notices that he is lame. It is remarkable that the off hind leg is more frequently involved than any other, and no reason for this fact can be given. If the hand be passed with slight pressure from above downwards on the inner surface of the thigh or fore arm, as the case may be, heat and tenderness will be detected. If in the early stages the surface will have a somewhat beaded condition to the touch, but as the disease advances the swelling increases and this peculiarity can no longer be detected.

The constructive breeder of live stock has a goal in advance of what the average breeder is attempting. Do not feed all the roots to the mature stock; keep sufficient to do the calves until fresh grass is ready to cut. Trim around the ewes udder before lambing time and so lessen the danger of the lambs getting wool into the stomach. Don't allow hay or straw to be wasted, there are yet nearly two and one-half months of stable feeding before the cattle go on grass. Rape or clover makes excellent pasture for hogs. Are you planning on saving grain this summer by pasturing the hogs? Sows and shoats can advisedly be turned to pasture. Our agricultural colleges are training students to be competent judges of all classes of live stock, but are they training them to be as proficient in feeding and handling stock? The farmer can have his meat at cost price by butchering some of his own stock and curing the meat for summer use. Pork can quite easily be cured and smoked. Home-cured pork has a flavor surpassing that which is on sale in the shops. One right good female, with desirable breeding and conformation, is more satisfactory for the beginning of a pure-bred herd than a half dozen nondescript pure-bred females. When starting in the pure-bred business it pays to start right, even if it does cost a little more money.

very lame, and does not care to move or put weight upon the affected limb, and if the part be pressed intense pain will be shown by violently lifting the limb, and in extreme cases the patient may moan or shriek. The swelling usually extends rapidly and involves the whole circumference of the limb from body to hoof. As the swelling increases the pain and lameness usually become less. There is usually a more or less marked loss of appetite, but in ordinary cases this is not well marked. In rare cases there is the formation of abscesses, but this is seldom seen except in a contagious form of the disease practically unknown in this country. Horses that are predisposed to the disease are liable to a recurrence of the malady on slight provocation. One attack succeeds another, and after a few attacks, or in rare cases the first, it is noticed that the swelling does not entirely disappear, and it becomes greater after each attack until the limb assumes a greatly enlarged and incurable condition called "elephantitis."

Treatment.—Preventive treatment consists in either giving horses that are highly fed and predisposed to an attack, exercise every day, or reducing the grain ration or largely substituting bran for grain during idle days. In fact, it is good practice to reduce the grain ration of any horse that is worked regularly and highly fed, if he is about to have a rest for a day or longer. Curative treatment consists in the administration of a purgative of 6 to 10 drams aloes (according to the size of the patient) and 2 to 4 drams ginger, and feeding bran only until the action of the purgative is established. In the meantime water from which the chill has been removed should be given in small quantities and often. If considerable pain be expressed, an anodyne, as 1½ to 2 drams of the solid extract of belladonna, or 1½ to 2 ounces chloral hydrate, may be given in a pint of warm water as a drench, but this is seldom necessary. If the pulse be full, strong and frequent 12 to 15 drops of

Fleming's tincture of aconite in ½ pint of water may be given.

The patient must be warmly clothed and excluded from drafts. It is good practice to follow the purgative with 2 to 3 drams nitrate of potassium twice daily for 2 or 3 days.

Local treatment consists in bathing the painful parts long and often with hot water, and after bathing be rubbed dry and camphorated liniment applied. If in cold weather, unless he can be kept warm, and drafts excluded, the bathing should be dispensed with, as a draft of cold air after bathing would cause such reaction as to complicate matters. He should be allowed to stand idle until the acute soreness and lameness have disappeared, and then he should get regular exercise, which helps to dissipate the swelling. Even in the acute stage forced exercise reduces the swelling and removes the lameness, but so soon as the patient is again allowed to stand, both reappear, and it has been noticed that each time this occurs during the inflammatory stage a portion of the swelling has a tendency to become organized and permanent. Even after the inflammatory stage has passed the swelling will reappear, to some extent during rest, for some time. Hand rubbing and banding between the hock and foot, or knee and foot as the case may be, tends to prevent the swelling after it has been dissipated.

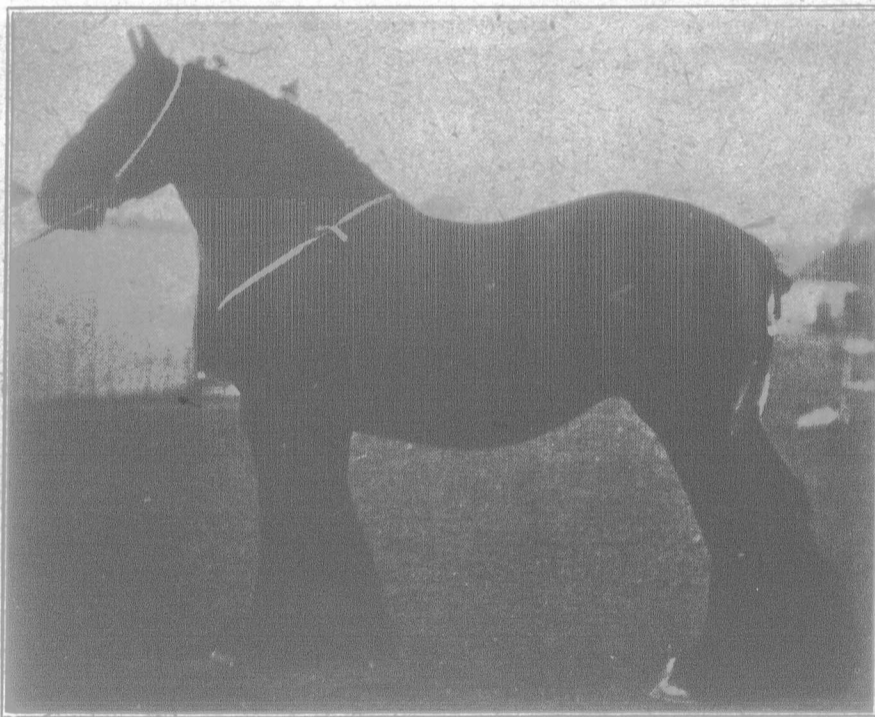
Some authorities advise regular work during all stages, but the experience of most practitioners has been to the contrary.

WHIP.

LIVE STOCK.

Forty-eight head of Duroc Jerseys averaged \$486, by auction, at Longview Farm, Missouri.

Young stock infected with lice does not thrive. Kill the vermin before it damages the stock.



Heavy Draft Type as Represented by a Shire Mare.

What are Experimental Farms Doing for Canadian Live Stock?

BY PROF. E. S. ARCHIBALD.

The work of the Division of Animal Husbandry in the Dominion Experimental Farms system consists, at Ottawa, of the commercial and experimental breeding, feeding, housing and general management of all classes of live stock, the preparation and marketing of dairy products, and the supervision and assistance of similar work on all the branch farms and stations.

This Division was first formed in 1911, live-stock work on the Experimental Farms previous to that date having been under the supervision of the Agriculturist, and since 1911 the scope of the work in Animal Husbandry has greatly extended. Some idea of this extension may be gained from the fact that the total number of live stock carried on all the Experimental Farms and Stations in the system has increased from 1,036 in 1912 to 4,967 in 1919, and the percentage of breeding stock is much higher in 1919. During this period, the number of beef cattle on the Farms have increased from 162 to 428, dairy cattle from 216 to 849, horses from 109 to 371, sheep from 303 to 2,063, and swine from 246 to 1,256. On Jan. 1, 1912, live-stock work was carried on at only eleven of the farms, while on Jan. 1, 1919, twenty-one Experimental Farms and Stations in the system carried live stock. On the older Farms, herds have been increased in size and much new breeding work has been done, as well as experimental work in feeding tests and trials of various feeds, while live stock work has been introduced on many of the more newly-established Experimental Stations of the system.

Beef Cattle.

Although some breeding work with beef cattle is being carried on at some of the branch Farms, the chief investigations with this class of stock have been along the lines of feeding experiments,—the most of the steers being purchased in the fall and fed during the winter in accordance with the conditions of the experiment. Data showing the exact amounts and costs of feed used, the total and daily gains made, and the details of profit or loss on the whole transaction are carefully collected and the steers sold in the spring almost always at a good profit.

One experiment, conducted for a number of years at Ottawa, had for its object the discovery of best methods for the production of baby beef, and this work was also carried on at Nappan, N. S. In an endeavor to discover the best breed, grade or class of steer to purchase for feeding purposes, experiments have been carried on at Ottawa, Charlottetown, Fredericton, Nappan, Kentville and Lacombe, in which the relative profits from steers of different breeds, butchers and stockers, dairy bred and beef bred, choice and inferior steers were compared. The losses from dehorning steers have been investigated on several of the farms, while other experiments have to do with the living conditions of the cattle during their feeding period, such as comparing the gains of steers fed loose with those tied; feeding in crowded and in roomy pens, in large lots and in small ones, for a long period and a short one, have also been carried out.

The question of shelter for cattle is receiving special attention, especially on the Western farms, where steers fed out of doors with no shelter have been compared with stall-fed steers loose and tied, and the results with steers fed under different kinds of rough shelter have also been noted. At Ottawa, experiments are clearly proving that the expensive barns for winter finishing are unnecessary. The cheap, single-board, open-front sheds are with less than a quarter of the labor in care of feeders and one-tenth the cost of buildings, giving just as great gains for feed consumed as the expensive structures. Farmers, especially in Western Canada, are not slow in applying the results of such experiments to their own conditions.

In order to find the best and cheapest kinds of feed for beef cattle in different parts of the Dominion, feeding experiments have been carried on with alfalfa, straw, different kinds of hay, roots, and all such farm-grown feeds; in which these roughages have been compared with concentrates and with each other, while the value of frozen wheat, different classes and mixtures of meals, have or are being tested. The results of these tests have been largely used by Canadian beef feeders.

The question of heavy vs. light grain feeding in winter feeding under present conditions of high-priced meals and grains is now given special attention.

The development of a good milking strain of Shorthorn is under special investigation at Kentville, N.S. Fredericton, N.B.; Brandon, Man., and Indian Head, Sask., and breeding work with beef cattle is also under way at Lacombe, Alta., with Aberdeen-Angus, and at Nappan, N.S., and Kapuskasing, Ont., with Shorthorns. As funds and equipment permit more and larger beef herds will be established and relatively more experiments conducted in breeding, rearing, finishing, housing, care and management.

Dairy Cattle.

The work with dairy cattle may be classed as breeding, feeding and care and management.

Comparisons of dairy breeds, together with special experimental work in grading up dairy cattle, carried on at Ottawa, Nappan, Fredericton, Lacombe and Agassiz, are lines of great importance in the work of the Animal Husbandry Division. The latter investigation is giving data on the value of the pure-bred sire on grade cows, and includes heredity studies to show the improvement made in each generation from the foundation stock. The returns from these grade herds are also compared with those from pure-bred herds.

The following breeds are kept on the Farms at present: Ayrshires, Holsteins, Jerseys, French-Canadians and grades at Ottawa; Ayrshires at Charlottetown; Ayrshires, Holsteins, Shorthorns and grades at Fredericton; Shorthorns at Kentville; Ayrshires, Holsteins and Guernsey grades at Nappan; Ayrshires and grades at Ste. Anne and Lennoxville; Ayrshire grades at Spirit Lake, P.Q., and Kapuskasing, Ont.; French-Canadians, pure-bred and grade, at Cap Rouge; Shorthorns at Brandon and Indian Head; Holsteins and grades at Rosthern, Lacombe and Agassiz and Jerseys at Sidney. All this breeding work is progressing rapidly.

One of the chief feeding experiments has been the determination of the value of silage of various kinds, fed at different rates, and compared with roots, oat sheaves, hay, straw, corn, molasses, etc., for milk production. Other lines of experiment have been: a test of the comparative value of home-grown feeds and concentrates, at Agassiz; meals for milk production, at Agassiz; foughages for milk production at Ottawa, Lacombe and Sidney. One of the earlier lines of work, carried on at Ottawa, had in view the object of determining the number of cattle that should be carried on a forty-acre farm.

Various patented feeds, Ontario Standard Dairy Meal, etc., are now being tried and many condiments have been tested, as well as such meals as fish meal, gluten meal and feed, oil-cake, elevator screenings, pea-dust, brewers' and distillers' grains, cocoa-bean husks, etc. Other experiments now receiving special attention are a comparison of the quantity of meal fed and the amount of milk produced, (Cap Rouge and Ottawa), summer feeding, (grain feeding on pasture and pasture substitutes, Ottawa), and best number of feeds to be given daily, (Ottawa).

All such experiments aim to forestall conditions of markets, etc., etc., so as to have for distribution information to meet the farmers' needs.

Accurate cost records are kept in all the breeding and feeding work, and special attention is given to determining the possibilities of cheapening production

each other and hand milking. In all eight different makes and types of machines have been on trial for periods ranging from one to six years. The compilation of these trials will be published in bulletin form in the near future. The advantages of coolers, tanks and refrigerators have also been carefully compared, as have various forms of milk pails as to their cleanliness and ease of cleaning.

Horses

With horses, breeding experiments are being conducted at Ottawa, Fredericton, Ste. Anne, Cap Rouge, Brandon, Indian Head, Scott, Lacombe and Agassiz. The following breeds are kept: Clydes at Ottawa, Percherons at Ste. Anne, French-Canadians at Cap Rouge, Clydes at Brandon, Indian Head and Scott, Percherons and Clydes at Lacombe and Clydes at Agassiz.

One experiment that has been carried on at a number of the Farms for the past few years had in view the discovery of the cheapest methods of wintering idle horses. Other tests being made are: working brood mares versus geldings, cost of maintenance of brood mares, and demonstrations of breed and type. The cost of rearing colts and the problems of feeds and shelters for the same are being studied at Ottawa, Charlottetown, Fredericton, Cap Rouge, Lennoxville, Indian Head and Lacombe. Spring colts are being compared with autumn colts at Cap Rouge, and figures are being obtained as to the advantages of raising spring colts out of doors and of working the dams of autumn colts during the crop season.

The cost of maintenance of work horses and the cost of horse labor are being given special attention at Ottawa, Lennoxville, Rosthern, Scott and Agassiz.

General experiments in the feeding of horses, such as the various proportions of grains and roughages, condiments, etc., have been conducted at Ottawa, Charlottetown, Brandon and Scott, and an experiment in in-breeding and line-breeding was commenced at Cap Rouge in 1917 with French Canadian stock.

at Lethbridge is the comparison of Corriedales with pure-bred and cross-bred Lincolns and Merinos.

Swine

Swine breeding and feeding has always been a main feature in the work of the Animal Husbandry Division, and it has been given still greater attention during the last few years, this work being carried on extensively at thirteen of the Experimental Farms and Stations, and there are now over 300 brood sows, which number will probably be doubled during the year 1919.

At Ottawa, a comparison of breeds is being made, Yorkshires and Berkshires being kept. This work involves studies in hereditary and cost of breeding operations. On the branch Farms and Stations, Yorkshires are kept at Nappan, Fredericton, Ste. Anne, Lennoxville, Spirit Lake, Kapuskasing, Brandon and Indian Head; Berkshires at Nappan, Brandon, Indian Head, Lethbridge, Scott, Rosthern and Summerland; Berkshires, Durocs, Yorkshires at Lacombe and Yorkshires at Agassiz.

The most economical methods of keeping brood sows are studied at Ottawa, while methods of cheapening costs of wintering brood sows and young pigs are investigated at Ottawa, Nappan, Indian Head, Lethbridge, Lacombe and Agassiz. General feeding experiments are carried on at a number of the Farms, the main feeds tested being: frozen wheat, farm-grown grains, meals, screenings, skim-milk and skim-milk substitutes, such as tankage, stock foods, sugar beets, whey, etc. Methods of feeding, such as dry, slop, soaked, boiled, self-feeders and hopper-grinders are being compared at Ottawa, Brandon, Indian Head, Scott, Lethbridge, Lacombe and Agassiz. The relative merits of pasture and sowing crops for swine are being tested at Scott and Lacombe, while the value of rice products as hog feed formed the basis of a valuable series of experiments at Agassiz. The comparative profits of long versus short feeding of shoats is being tried at Ottawa, as well as a comparison of the costs of raising spring and fall pigs. Of all these lines of work the results of which have been so greatly



Richland Beauty.

Champion female at Shorthorn Congress Show in Chicago. She sold for \$1,625 to an Argentine breeder.

in breeding and feeding methods employed at all farms, especially at Ottawa, Cap Rouge and Agassiz. Figures on the cost of raising heifers, to show the advantage of raising good calves to maturity are being gathered at Ottawa, Fredericton, Cap Rouge, Indian Head and Agassiz. These figures are available at all times.

Careful records of the cost of milk production in the different herds are kept at Ottawa and a number of the branch Farms, and numerous feeding experiments with calves have been carried on, in order to show the value of whole and skim-milk, meals, patented calf meals and concentrates. This information is being compiled for immediate publication each under its separate title.

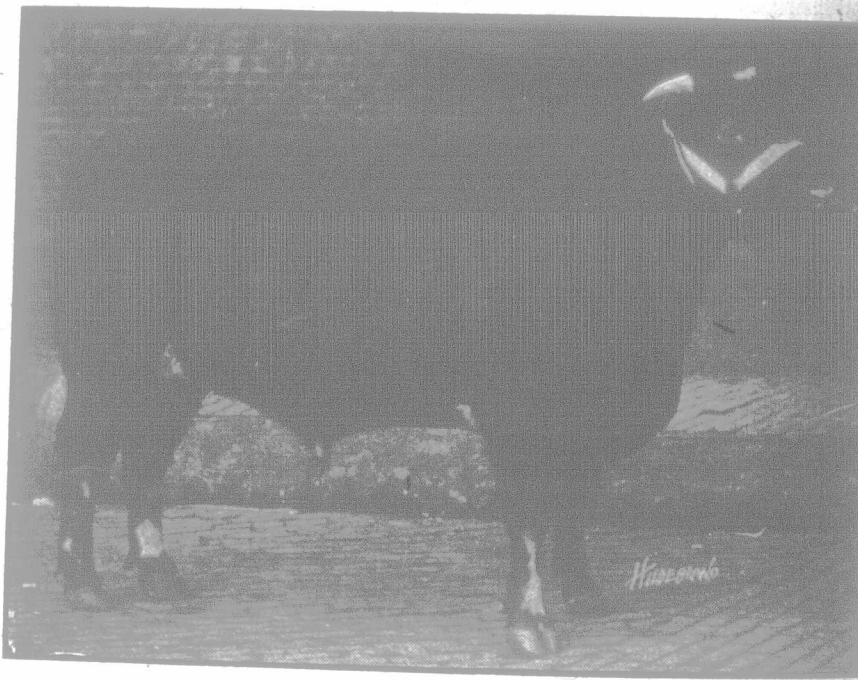
Cows have been entered for Record of Performance and Record of Merit Tests at many of the Farms, and many excellent records made. Milk and feed record forms are distributed without charge to applicants, and by this means the farmer is enabled to see what each cow is doing in his own herd, and eliminate non-paying animals, and also to judge the success of his breeding operations. The increasing demand for these forms is a fair criterion of the greater attention paid by dairymen to this work.

For several years special experiments in herd management along the lines of protection against flies, eradication of lice, eradication of abortion and tuberculous have been conducted. Results, though favorable, are not yet completed, but are available on application.

Dairying

In dairying, work is being conducted in the selling of milk to the best advantage, i.e., as milk, butter, cream or cheese, at Ottawa, Fredericton, Cap Rouge, Lacombe and Agassiz, where cream, Cheddar, Camembert, Coulonier, Stilton and Stiltonette cheeses are made, experimentally and commercially.

Milking machines of several makes have been given a thorough trial at Ottawa, being compared with



Village Hercules.

Champion bull at Congress Show in Chicago. Owned by Day & Rathoch, Spokane, Wash.

Sheep

The work in sheep breeding and feeding has expanded rapidly during the last few years, especially on the prairie Farms, and some remarkable results are being obtained. There are now over 1,200 breeding ewes on the various Farms.

Comparisons of breeds are made at Ottawa, Indian Head and Lacombe. Some excellent flocks of Leicesters, Shropshires, Oxfords, Cheviots and Dorsets are now well established. Other breeds will be added soon. Work in grading up flocks of common ewes by the use of pure-bred ram is going on at Nappan, Fredericton, Ste. Anne, Lennoxville, Morden, Brandon, Indian Head, Rosthern, Scott, Lacombe, Summerland and Agassiz, in which pure-bred rams of all the outstanding breeds are used. Figures on the most economical and best methods of wintering ewes have been gathered at Nappan, Cap Rouge, Indian Head, Lacombe and Agassiz, and the profits in the winter finishing of lambs and the best rations for old and young lambs are being worked out at Ottawa, Nappan, Cap Rouge, Lennoxville, Indian Head, Lethbridge and Agassiz.

Numerous feeding experiments with lambs are being carried on at a number of the farms. Among these may be mentioned: alfalfa, clover, silage, roots, etc., compared with each other and with various other roughages; the value of cotton-seed meal, elevator screenings with and without blackseeds, oilcake, peanut oil meal, etc., in the ration; tests of various kinds of shelter; short versus long keep; while the comparative feeding values of home-grown feeds and mill products are being specially studied at Ottawa, Cap Rouge and Rosthern.

The advantages of disposing of the wool crop cooperatively or through local merchants have also been tested.

A new and interesting line of work recently started

used by Canadian farmers three are outstanding namely:

1. Use of self-feeders as labor-savers.
2. Use of pastures of various kinds, and
3. Use of substitutes for standard meals which have more or less disappeared from our markets. Screenings has been the chief substitute.

A noteworthy feature of the swine breeding operations is the sale of pure-bred breeding stock to farmers at reasonable prices. The demand always far exceeds the supply.

Buildings

During recent years the Division of Animal Husbandry has planned all buildings, such as cow barns, horse barns, lamb sheds and sheep barns, farm dairies, piggeries and hog cabins, silos and steer barns and sheds, erected on the Experimental Farms. The subject of farm buildings has been given close study, and those built according to the plans of this Division embody what is considered the best practice to ensure economy, durability, sanitation, light, ventilation, conveniences, comfort, cheerfulness and efficient accessories. In addition to this work the Division has distributed free about 700 plans annually to farmers asking assistance in planning their new buildings.

The details and results of the work in Animal Husbandry have been published each year in the Annual Report of the Experimental Farms. Besides this, the Division has published a large number of bulletins, exhibition circulars, special circulars and pamphlets on the results of its work, while other articles have been contributed to "Seasonable Hints," and during the last two years numerous short articles have been sent to the press of the whole country. This distribution of results of experiments in bulletin and circular form will increase greatly in the near future, as many lines of investigation are nearing completion.

Dog Registration Act in New Zealand.

EDITOR "THE FARMER'S ADVOCATE":

I notice that there was some discussion about the dog tax, at the meeting of the Sheep Breeders' Association. Now, I do not approve of a raise in the dog tax unless it be on dogs in towns and villages, as dogs are necessary on a farm but the law should be enforced so that every cur in the land—or rather, his owner—would be taxed. Many seem to dodge the dog tax by evasion, or a straight lie. One is as bad as the other; and if a ratepayer's word is not worth the price of dog tax there should be some heavy penalty for him to keep him straight.

The following is a copy of the Dog Registration Act of New Zealand, from which we might take some pointers:

"All dogs above six months old must be registered within fourteen days after the age limit, under penalty not exceeding £5. No dog can be registered till the fee is paid. Payment of fee after the above grace period, if voluntary, i.e., without a summons—free of the liability to penalty. Onus of proof of a dog's age, or of possession for less than fourteen days, lies on the owner. The registration period is the calendar year, and all registrations effected during the year extend only to the 31st of December following. First registrations after the first of July are at half the fee. Registrations after the first of July are at half the fee. Registration fee.—The fee fixed is 10s. and it may be reduced by the local authority to anything between that sum and 2s. 6d.

"For sheep and cattle dogs (to the limit of three) belonging to shepherds or drovers who live in the country, and farmers, the fee may be reduced to anything between 2s. 6d. and 1s., and also dogs kept for rabbit purposes. All reductions require a statutory declaration. Registration in any district covers the whole colony. Mode of registration.—The description of the dog having been given at a registry office, the animal is registered, also the name and residence of the owner, who is entitled to a corresponding label, together with a collar, but he may attach the label to any other collar. Change of ownership in dogs is noted in the registration book free of charge, and the label becomes the property of the new owner.

"Consequence of Non-registration.—Dogs without collar and label are regarded as unregistered, and such found wandering on land may be destroyed by the owner or his agent; or seized and kept by the police or duly appointed person for seven days, at the end of which time, if the expenses are not paid by the owners, they may be sold, the balance of the money going to the district fund. Penalties—not exceeding: False description of registration, £5; False declaration for reduction of fee, £20 (in default not exceeding one month's imprisonment); Counterfeit label (manufacture or use of), £20; Obsolete label (for a dog wearing last year's label), £5; wrong label (for a dog wearing another dog's label), £10; wilfully and maliciously removing label, £10 (plus the full value—to the owner—of any dog destroyed or sold in consequence.)"

Russell Co., Ont.

R. H. HAMILTON.

Shorthorn Registrations Show Large Increase.

The Shorthorn breed has made rapid strides during the past ten years, as is indicated by the increase in registrations. For instance, Volume 35 of the Herd Book will contain the names of 18,350 cattle, as compared with 7,526 in Volume 25; this is an increase of about 144 per cent. The following table shows the increase in registrations by provinces. The greatest increase has been in Ontario, and in some of the Western provinces; there has, however, been a falling off in British Columbia.

Province	1908	1918
Ontario	4,315	10,132
Manitoba	1,098	2,154
Saskatchewan	387	1,734
Alberta	635	2,101
British Columbia	45	42
Quebec	268	778
New Brunswick	42	158
Nova Scotia	107	149
Prince Edward Island	35	137
United States	106	11

Regulation Affecting Cattle Going Into Ohio.

Live stock breeders who have had occasion to ship stock across the line are no doubt aware of the regulations requiring the animals to be tested for tuberculosis. Recently a new regulation was brought into effect in the State of Ohio. The regulation in effect is as follows: All dairy and breeding cattle, six months of age and over, coming into Ohio from the Dominion of Canada shall come in under quarantine of sixty days and shall be re-tested by this Department before being released, except cattle which have been tested by a veterinarian in the employ of the Bureau of Animal Husbandry, Washington, D. C., such test having been made within six weeks prior to the date of shipping. In the shipment of cattle, the owner must first obtain a permit from the Bureau of Live Stock Industry, Columbus, Ohio, and enclose an improved health certificate of the

animal or animals intended for shipment into Ohio. If this health certificate indicates no reaction, or doubtful reaction, they will be permitted to be shipped into Ohio, subject to a quarantine and a sixty-day re-test.

Shorthorn Sale at Perth.

The Shorthorn sale at Perth, Scotland, held in February, broke all records in the Old Land. The Perth sale has been a notable event for years past, but this year's sale will go down in history as eclipsing all previous ones. The average of £243 8s. 6d. was made on 429 bulls. The previous high record was £154 7s. 8d. for 434 bulls at joint sales, which was made at the same sale last year. The high price of 4,000 guineas

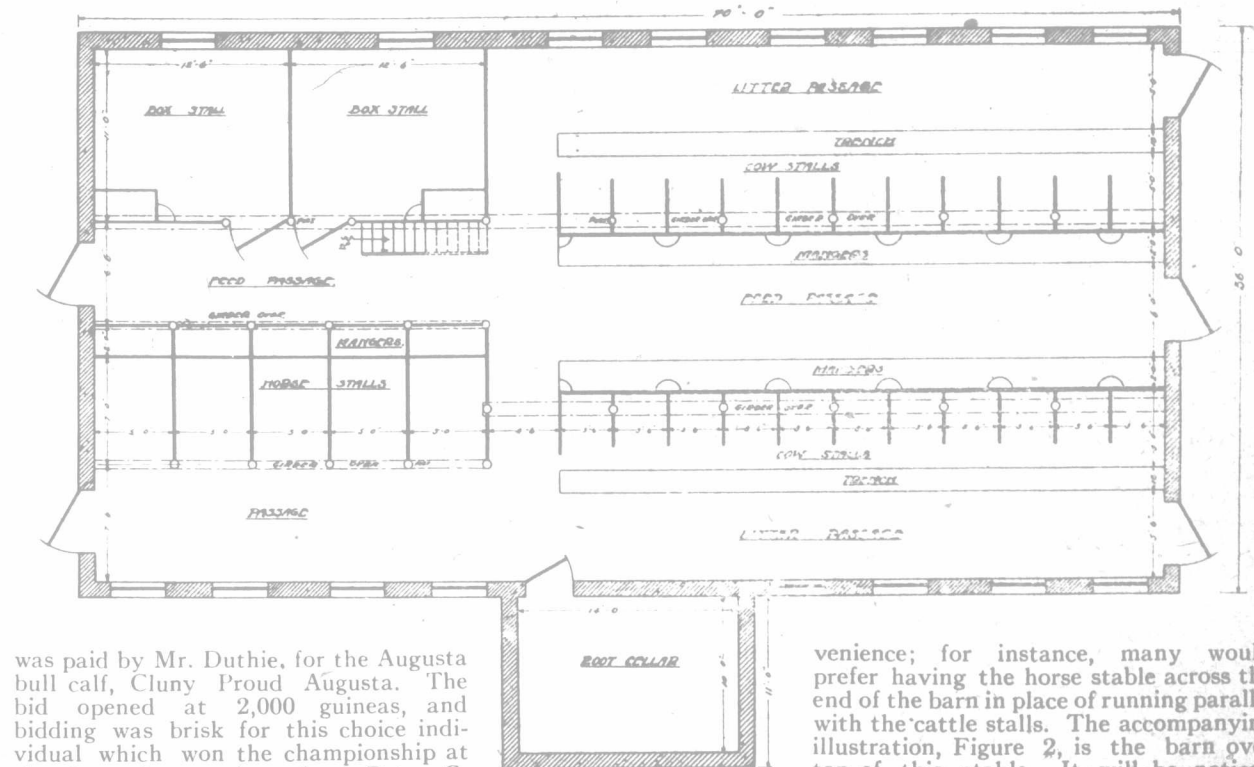


Fig. 1—A Modern Stable with Plenty of Windows.

was paid by Mr. Duthie, for the Augusta bull calf, Cluny Proud Augusta. The bid opened at 2,000 guineas, and bidding was brisk for this choice individual which won the championship at the show the previous day. Peter G. Ross, of Ohio, and F. T. Wilkinson, another exporter, were both anxious to secure this herd header, but Mr. Duthie, of Collynie, did not allow him to cross the water. Last year Mr. Duthie himself sold a bull calf for 4,200 guineas, but this was at a private sale instead of a joint auction as was the case at Perth. Some of the other prices were 3,300 guineas, paid by Captain McGillivray for a beautiful red March calf of Broadhooks family; Lothian Marksman, from Lord Rosebery's herd, went under the hammer at 3,100 guineas; a Nonpareil March calf brought 2,400 guineas; an Orange Blossom bull brought 1,600 guineas; a Clipper Favorite, 1,500 guineas; a Sittyton Secret brought 1,250 guineas. Quite a number of the bulls were purchased by breeders in Ireland, and a number will leave Scotland's shores to head herds across the Atlantic.

These prices may seem to the average breeder to be unusually high, but when the breeding and individuality are taken into consideration it is quite possible that even the 4,000-guinea bull will be a money-maker for his new owner. It depends a good deal on the class of females with which he is mated. The breeders who ran the animals up to the above prices must have seen value in them. The sire is more than half the herd.

The man who maintains his herds and flocks will be the gainer during the reconstruction period.

Barn and Stable Plans.

In practically every locality there are barns and stables to be rebuilt or fixed over every year. A few years ago apparently little attention was paid to the kind of material to use in constructing a barn, or to planning a stable for the greatest convenience. In the present age of labor shortage and keen competition, more attention is being paid to the laying out of the stable so as to make it convenient for doing chores, or, in other words, plans are made to secure the greatest efficiency. Figure No. 1 shows a stable which is modern. The diagram shows plenty of window space, and steel stanchions and water bowls are used in place of wooden ones. True, there is no silo in connection with this plan, and no space is left for an adequate feed mixing room. The plan might be altered to give greater con-

venience; for instance, many would prefer having the horse stable across the end of the barn in place of running parallel with the cattle stalls. The accompanying illustration, Figure 2, is the barn over top of this stable. It will be noticed that the box stalls are located immediately under the granary, and there is no very convenient place to locate a grain chute and chop bins in the stable so that the feed may come direct from the granary to the

stable. The plan shows it to be a steel-truss barn. This type of building does away with many heavy timbers, and leaves a large space without any barrier for the storing and removing of feed. The steel arches or trusses project somewhat into the mow but do not take up much space and are necessary to give strength to the building. This barn is on the farm of T. H. Johnstone, of Southwold, Ont.

Figure 3 shows a stable laid out for the handling of a large herd of cattle. The silo being at one end, and two rows of cattle facing the centre, permits of using a feed cart to splendid advantage. There is a manure shed in connection with this stable, a provision which is found on very few farms. The hog pen joins the cattle stable and the pigs run in the manure shed.

In some districts where cattle feeding is in vogue, feeders have found it advantageous to run the cattle loose in box stalls, or shed, rather than tying them. Not only do the cattle make economical gains, but there is a great saving of labor. Figure 4 shows the lay-out in a stable given over to the feeding of steers. The feed chute is in the centre of feed alley, which eliminates having to carry the hay or straw any great distance.

Figure 5 shows a compact stable where most of the stock are tied. The cattle face the wall and there is a feed chute in both alleys. It will be noticed that some



Fig. 2—Steel Truss Barn.

Absence of beams and posts makes a handy barn for working in.

stalls are longer than others to accommodate cattle of different ages. There is a wide door at each end of the litter alley so that a team and wagon may be driven through when cleaning the stable. Two box stalls are provided and space is set aside for the pump, engine, cream separator, etc. The silo being on the opposite side of the barn to the root cellar is not very convenient for the mixing of feed.

The accompanying illustrations show the lay-out of stables which are in use. They may offer suggestions to those planning on building, or on remodelling their stables. No doubt the owners of each of these stables

of late years. It is claimed that it was about 1793 that the breed was first imported to America. In 1810 there was a keen demand for this breed of sheep in America, and ewes and rams were selling for as high as \$1,500 apiece. In that year it is estimated that ten thousand head were shipped from Spain to America. The size of the breed varies. Many excellent ewes weigh around a hundred pounds and rams from one hundred and fifty to two hundred pounds. As a wool producer, the Merino stands supreme. It shears a strong, fine and heavy fleece. The fleece has on some individuals represented thirty-six per cent. of the live weight. The

"The fleece covers the entire body and legs, excepting on the nose, on the lower half of the head, and on the ears. The eyes are often hidden by the fleece covering the head. The outside of the fleece is of a dirty black color, caused by the accumulation of dust in the yellow oil or yolk which exudes to the end of the fibre, adding greatly to the unwashed weight. A considerable amount of oil is desirable in the fleece, and especially is it important in the rams. A dry, white fleece is an inferior wool, and rams with such fleeces are not usually the best breeders. This grease, oil, or yolk may be scoured off, to show a shrinkage in weight of 65 per cent. American Merino wool is the finest produced, and the more folds on the body, and the more crimped the fibre, the finer the staple. The one-year-old fleece of a mature sheep will show a length of about two and one-half inches. The temperament of the Merino is very lively, yet not necessarily inconsistent with docility."

Then there is the strain known as the Delaine Merino. In the woolen trade, the name indicates a class of wool used to make fine, untwisted worsted goods. This strain of the Merino dates back to early in the nineteenth century. With it breeders have kept both mutton and wool production in mind. The Delaine wethers mature fairly early and bring satisfactory prices. The breeding qualities are superior to that of the American Merino; not only are they more prolific, but they are better mothers and the lambs are more robust. However, they do not adapt themselves to conditions like the former. The Delaine is widespread over the United States and continues to grow in favor. In Canada neither the American nor Delaine Merino is common.

English Agricultural Position.

Fragmentary, but interesting, are the items of news to be gleaned and written concerning English agriculture and live stock breeding. We have had a terrific spell of wet weather and work on the land is delayed by four to six weeks in some counties. Fields are rain sodden, drains and ditches are full of filth and rubbish, and we are still short of expert labor, the "pivotal" men in the army being very slowly dismissed—too slowly for the farmer's liking. The Government announces that it is going out of the business of farming, i.e. that it is no longer going to compel farmers to plow up pasture land, that ideal pasture land of England which raises such delicious beef and such succulent mutton, only things to dream of, as something that existed in the years prior to the far-away times of 1914. Good times lie before us when peace is signed, which we are told will be about Midsummer's Day, to wit, June 24, the day we all assemble at the Royal Agricultural Society's Show, at Cardiff. Greater supplies of feeding stuffs are being liberated for our cattle and sheep, but hay is growing scarce and pastures are bare, and the weather cold. Dairy cattle and store cattle for fattening are cheaper than they have been. Store pigs and suckers are meeting with a better trade since the minions of the Food Controller cancelled the hair-brained death sentence that "all pigs should be slaughtered ere 1919 dawned because there would be no feeding stuffs for them." The Armistice cleared the way for the revoke of that order, and the pig world—cottages, allotment holders, citizens and villagers alike have rejoiced since. The pig has grown upon the Englishman since the war. There is an outward and visible manifestation of love being expressed for the curly-tailed one, as well as an inward love for "the crackly bit."

Now, let's talk "pedigree." Shire men in Canada will be amused to learn that the English Shire Horse Society have decided to advertise the breed in Canada. They think this way—that a lot of statements damaging to the merits of the breed are ever and anon printed in Canadian newspapers, and they have a stunt scheme to work to counter-act them. The development of the scheme will be watched with interest by those over here who think the best way to advertise the Shire is to do so in England first!

There were some few in England who thought that when the army began to sell its heavy draft horses the bottom would fall out of the "pedigree" trade. But

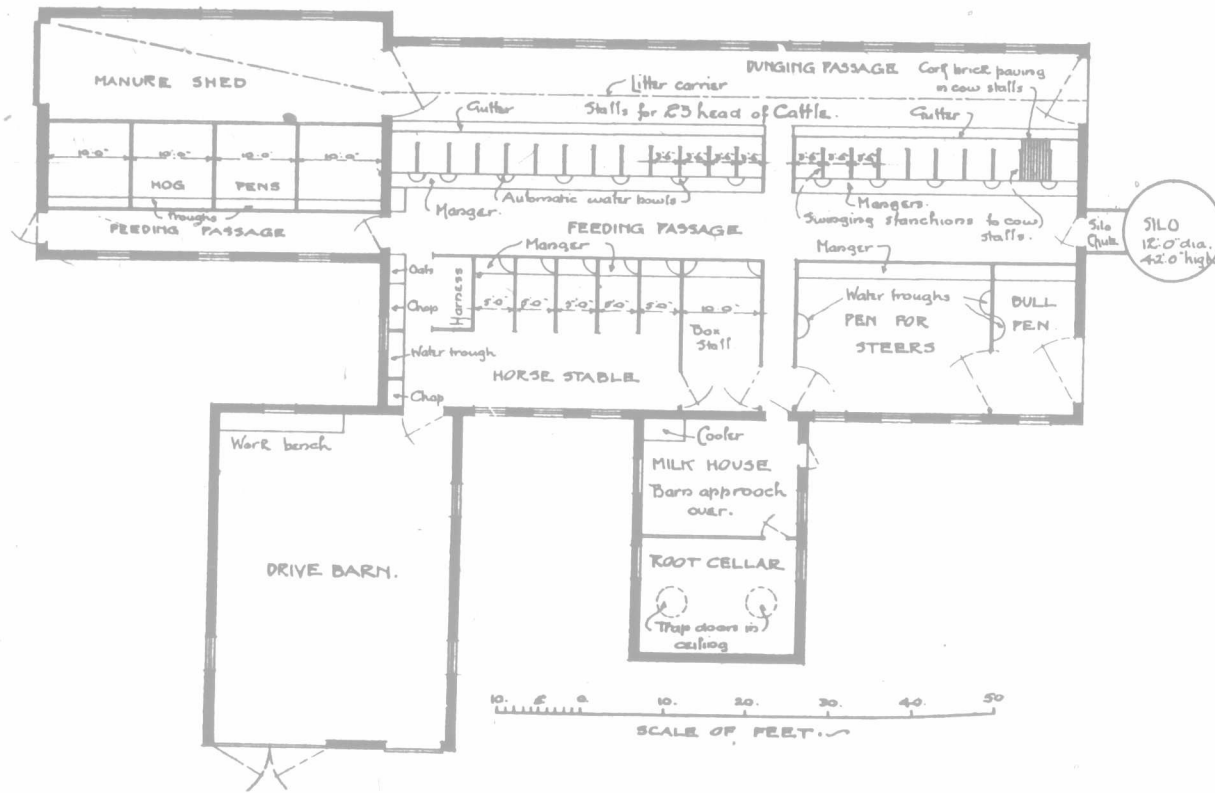


Fig. 3—A Large but Convenient Stable.

would make changes were they building again. Each plan could possibly be criticized. Some of our readers may be able to offer suggestions as to how these stables could be laid out to better advantage, or for greater convenience in feeding. Let us have suggestions re the lay-out of stables designed so as to require the least steps in doing the chores.

Merino Sheep.

The Merino belongs to the fine-wooled class of sheep and produces the finest of fibre for use in the woolen trade. The wool, while a little short in the staple, is very thick over the entire body and remarkably fine in quality. An oily secretion exuding from glands at the base of the wool fibre is pronounced in this breed. This oily substance gathers dust and dirt, which gives the fleece a rather dirty appearance. There is scarcely the breadth of back, fullness and general thickness as in some of the other breeds. Heavy muscular development is more pronounced than smoothness of form. The American Merino originated in Spain, where the climate is generally dry and mild in the low lands. Sheep husbandry has been important in Spain since the beginning of the Christian era. As early as the first century the superior quality of Spanish sheep was commented upon by Latin writers. A number of slightly varying types of Merinos were kept in the country, development along some lines being more pronounced than others according to the views of the breeders. Early history indicates that the people of Carthage and Phoenicia brought fine-wooled sheep from Africa to Spain as early as 41 A. D. From Spain the breed has been exported to different European countries and to America. Considerable improvement has been made

breed is inferior as a producer of mutton, and the breeding qualities do not rank as high as in some of the other breeds. Professor Plumb gives the characteristics of the breed as follows: "The head is small, being comparatively broad and short, the rams carrying heavy, spirally twisted horns, and the ewes are hornless. The lips and nostrils are white and fine, silky white hairs surround the muzzle and extend part way up the nose. The ears are small and are covered with fine white hairs. Reddish or tan-colored hair is occasionally seen on the ears and nose of the Merino, which suggests a reversion to the same color of earlier days. Some Merino breeders have valued this color variation, while others have endeavored to breed it out. The neck is thin and tends to be long below and short above, the shoulders are very sloping, the chest narrow but deep, the withers thin, the back moderately narrow, the rump frequently steep, the thighs thin, the legs small and fine. The skin is of the most attractive bright pink color, and in good specimens is in folds along the bridge of the nose and neck, about the breast, shoulders, lower part of the sides, and about the rump and thigh. There are usually no folds over the back and perhaps upper third of sides, unless in a small degree. In 1892 an eminent breeder is thus quoted by Ezra Carman:

"The prevailing fashion is to have from three to five heavy folds on the neck, not large on the upper side, but large on the under side; two or three short folds on and immediately back of each elbow or arm; fine, thick wrinkles running down the sides, but not extending over the back. Wrinkles across the hips, sometimes from the tail in the direction of the stifle, and sometimes at right angles with them, folds also around the tail to give it a wide appearance, and also folds across the thigh with a deep flank.

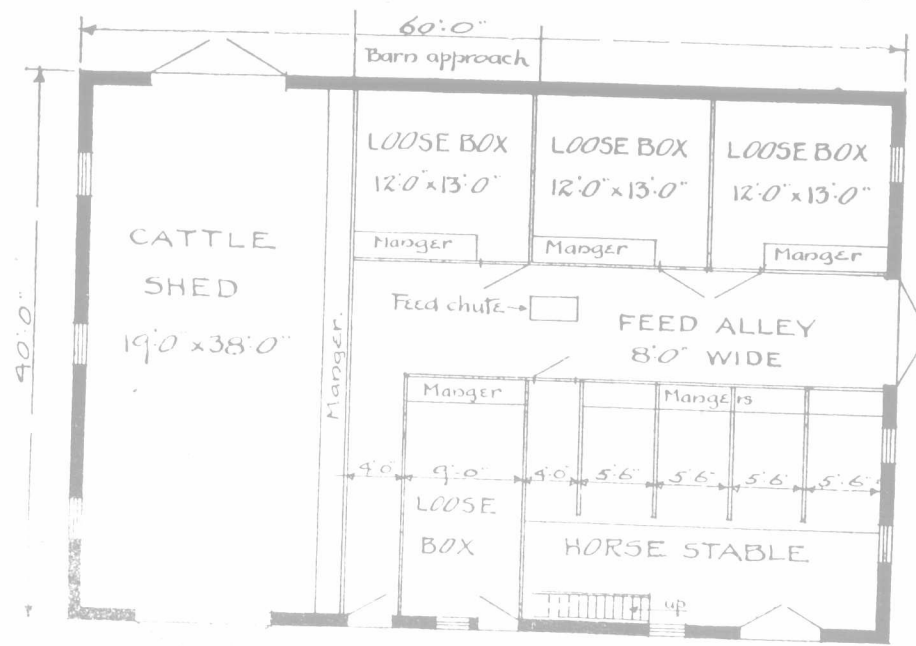


Fig. 4—Stable Arranged for Feeding Steers.

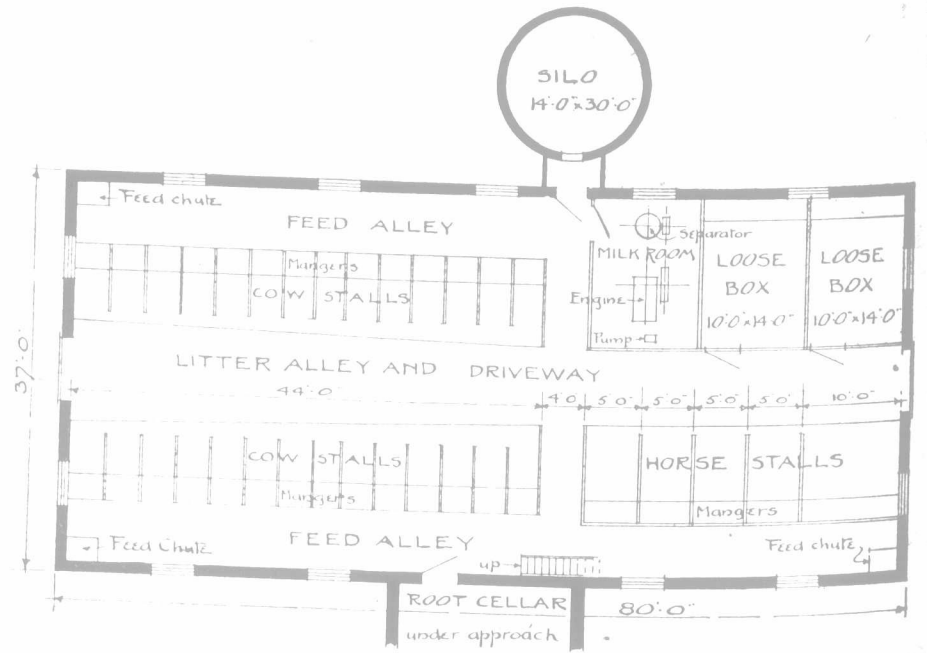


Fig. 5—A Stable with Little Work Room.

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the entire body and legs, excepting the lower half of the head, and on the sides hidden by the fleece covering the body of the fleece is of a dirty black accumulation of dust in the yellow ends to the end of the fibre, adding to the weight. A considerable amount is in the fleece, and especially in the legs. A dry, white fleece is an improvement with such fleeces are not usually this grease, oil, or yolk may be a shrinkage in weight of 65 per cent. The wool is the finest produced in the country, and the more crimped the staple. The one-year-old fleeces show a length of about two and a half inches, and the temperament of the Merino is necessarily inconsistent with the strain known as the Delaine.

the strain known as the Delaine, in the name indicates a fine, untwisted worsted goods. Merino dates back to early in the 19th century. With it breeders have kept both the strain in mind. The Delaine is superior to that of the American and bring satisfactory prices. They are more prolific, but they do not adapt themselves to conditions as well as the Delaine. Delaine is widespread over the country, but continues to grow in favor. In America nor Delaine Merino is as common.

Cultural Position.

interesting, are the items of news concerning English agriculture. We have had a terrific spell of drought on the land is delayed by four weeks. Fields are rain sodden, and full of filth and rubbish, and we labor, the "pivotal" men in the industry dismissed—too slowly for the government announces that it is in a state of farming, i.e. that it is necessary for farmers to plow up pasture land, and of England which raises such succulent mutton, only things which existed in the years 1913 and 1914. Good times lie ahead, which we are told will be a year, to wit, June 24, the day we have the Agricultural Society's Show, at which the feeding stuffs are being sold, and sheep, but hay is growing better, and the weather cold. The battle for fattening are cheaper and pigs and suckers are meeting the needs of the Food Control Commission. The death sentence that was pronounced in 1919 dawned on the breeding stuffs for them. The year for the revoke of that order, and allotment holders, citizens rejoice since. The pig, has a new interest since the war. There is a manifestation of love being expressed, as well as an inward

Shire men in Canada are advertising the breed in Canada. A lot of statements damaging to the breed are ever and anon printed in the papers, and they have a stunt scheme to run. The development of the breed has an interest by those over here to advertise the Shire is to

in England who thought that they would sell their heavy draft horses to the "pedigree" trade. But



Room.

it hasn't—not one little bit. American and Canadian Percheron-bred heavy drafters are being sold in Britain in thousands and are making good money, but the pedigree Shire, Clydesdale and Suffolk trade remains unimpaired and high are the values of breeding stock, while street geldings and working farm mares of each breed continue to make 150, 200 and up to 300 guineas apiece. Shire mares, potential dams of a foal a season and willing workers in the shafts on the farm, are as dear as Pierpont Morgan's best picture,—relatively speaking that is.

But let me interpolate something about your Percheron-bred stock. Special sales of heavy draft horses, surplus to army requirements, are now being held almost weekly at Messrs. Tattersalls, in London, England. On Monday, February 3, 44 were disposed of. They included American-bred Percheron-grade horses, and a number of English-bred Shire horses. Some of the former were no doubt clean-bred Percherons, but there is, of course, nothing to prove the assumption since they were bought merely as "horses" by our War Office buyers in America. Percheron horsemen will be interested to know that this type fetched the highest prices. Two sent up from Luton Depot made 330 guineas, one being a magnificent seven-year-old gelding, 17 hands (150 guineas), and the other a powerful dark brown, six-year-old gelding 16.1 hands (180 guineas).

The Hayes Wharf Company, London, were the purchasers. They also gave 290 guineas for another pair of Percherons, while the Duke of Somerset gave 240 guineas for a black mare and a black gelding, both Percherons. Two Shire-bred mares from Luton made 155 and 125 guineas respectively. The highest priced lot among the Shirehampton contingent was 170 guineas for an exceptionally strong and active grey Percheron gelding six years old. Surely that is sufficient to make Wayne Dinsmore do a jazz jag on his own round the fore-court of the Stock Yard Inn.

A three-days army horse, sale has been held at Ormskirk, which is in Lancashire, where the gingerbread comes from. The authorities there realized £24,405 for their 615 horses sold, i.e. 155 heavy drafters, 364 light drafters, and 96 riding horses. The Percheron-bred stock averaged £54, the light drafters £36, and the "charges" £25, but better prices will be made than that, I venture yet. Grade bred "heavies" have made up to £125 at Lampeter; £98 at Ipswich; £120 at Nottingham and Newcastle, and so on.

Our milk recording scheme now under the aegis of the Board of Agriculture is progressing like wild fire. The Lancashire County returns for 1918 show that one cow yielded the fine yield of 15,364 1/2 lbs. in twelve months; two did over 12,000 lbs.; three did over 11,000 lbs.; four did over 10,000 lbs.; eighteen did over 9,000 lbs., and forty-nine passed the 8,000-lb. mark. Now these are chiefly either non-pedigree Shorthorns or very short pedigree ones. In Cambridgeshire one cow yielded over 12,000 lbs.; four over 11,000 lbs.; nine over 10,000 lbs.; twenty-nine over 9,000 lbs.; thirty-five over 8,000 lbs.; and seventy-one over 7,000 lbs. The official report says they are chiefly of "the Shorthorn type." Many were cross-bred to a degree, but the splash of Shorthorn in their blood does the trick.

I won't poach on Scotch preserves, but will just say that at Perth, on February 5, the Scots lifted the lid off the price game. The high price of 2,800 guineas was paid twice for young bulls of the Aberdeen-Angus breed. J. E. Kerr, (Harviestown) sold his reserve champion bull to R. McWilliam (Keith) for that figure and for export soon to Argentina. Mr. Kerr himself paid 2,800 guineas for Sir George Macpherson Grant's March 1918 bull. The champion bull made 2,100 guineas, Mr. Cochran (Alyth) being the buyers and J.F. Cuming, (Aberlour) the vendor. Some 280 bulls averaged £112 16s. 4d.

A fat tup (commercial type) of the Border-Leicester breed was sold (with his skin) in a country market at Blackhill for £10 19s. 4d. A fat bullock made £79 in a Yorkshire market, under the Government's grade price of payment according to "finish" and weight.

It had been hoped by the Council of the Royal Agricultural Society of England that H. R. H. the Prince of Wales would have accepted the Presidency of the Cardiff Show, but the Prince has declined with thanks, for he is still in the army and at the front, and cannot make any engagements. Sir John Bowen Jones, a Shrewsbury man, gets the honor. He is the oldest member of the R. A. S. E.

ALBION.

The second annual Shorthorn Show and Congress to be held in Chicago was a decided success. Two hundred and fifty-four head, drawn from many herds, went through the sale-ring for the sum of \$199,500. At the show Richland Beauty was the grand champion female, and sold for \$1,625. The first-prize yearling bull, Hercules Diamond, sired by Gainford Perfection, a Canadian-bred bull topped the sale at \$5,000. The champion male of the show was Village Hercules, which went under the hammer at \$2,500. The judges at the Show were: W. T. Rosenberger, of Tiffin, Ohio; W. H. Pow, of Ohio; I. C. Yule, Carstairs, Alta., and D. Bellows, Missouri.

A pointer, a sow, heifer, foal or lamb given to the boy of twelve or fifteen as his special care, the proceeds to be his, will create in him more interest in the farm work and will give him a greater insight into breeding, care of stock and business principles than the promise of the entire farm and effects ten or fifteen years hence. Give the boy responsibility.

THE FARM.

The Dry Formaldehyde Treatment for the Prevention of Oat Smut.

BY PROF. J. E. HOWITT, O. A. C.

Oat smut is the most prevalent and most injurious grain smut in Ontario. A very conservative estimate of the average annual loss caused by this smut to the farmers of the province is \$18,000,000. This is to a very large extent a needless loss, for Oat smut can be prevented by proper treatment of the seed with formalin. In the past many farmers have been deterred from treating their seed oats with formalin by the time and labor involved in carrying



Fig. 1—Applying Strong Formalin Solution.

out the methods of treatment as recommended by the various experiment stations. The immersion and sprinkling methods which have been found to be so effective and which have been so much recommended in the past do require considerable time, labor, care and skill, and therefore some more easy and simple method has become almost an imperative need if the practice of treating seed oats to prevent smut is to become more universal among the farmers of the province.

The so-called "dry formaldehyde treatment" appears to fill the need for a more simple and easy method for the prevention of Oat smut. It has been tested by various experiment stations in the United States and has been adopted and recommended by the War Emergency Board of American Plant Pathologists.

Last winter laboratory experiments were conducted

tion. The chief disadvantage of this method is that the strong formalin fumes will irritate the eyes, nose and throat if proper precautions are not taken to provide for a free circulation of air when the oats are being treated. The writer believes, however, that the advantages of this new method are so great that once a man has given it a fair trial he will never go back to the old methods again.

How to Use "Dry Formaldehyde Treatment."

Place the oats to be treated in a pile on the granary or barn floor and shovel them over into another pile, and as they are being shovelled over spray them with a solution consisting of one part formalin, 40 per cent formaldehyde, and one part of water. Use this solution at the rate of one pint to twenty-five bushels of seed, that is, use half a pint of formalin mixed with half a pint of water for every twenty-five bushels of oats. If smaller or larger quantities of oats are treated use proportional amounts of formalin and water. Thus twelve and a half bushels of oats require only a quarter of a pint of formalin mixed with a quarter of a pint of water. A small quart sealer sprayer costing less than a dollar, like the one shown in the accompanying illustration, is most convenient for spraying the formalin solution on the oats. Two men can best do the work. One man should shovel the oats while the other sprays each shovelful. After the oats are all sprayed they should be piled in a heap and covered with blankets, canvas or sacks to confine the formalin vapor. After five hours the seed may be uncovered, bagged and sown at once if desired. There will be no delay waiting for the seed to dry and no wet and swollen seeds to choke the drill.

Precautions to be Taken to Insure Success.

1. Use the formalin solution of the exact strength and in the exact proportions recommended.
2. Be sure and cover the treated seed as instructed.
3. Take precautions to see that the treated oats are not infested with smut spores. Sacks, bins, implements, etc., used in handling the smutted grain must also be disinfected. The sacks should be dipped in a strong solution of formalin (one pint to ten gallons of water) and the seed drill should be cleaned and a little strong formalin solution run through it.
4. In order to avoid irritation to the eyes, nose and throat from the strong formalin fumes, provide for free circulation of air through the granary or barn when the formalin solution is being applied.

Use More Paint.

EDITOR "THE FARMER'S ADVOCATE":

When travelling through the country one sees a great many farm buildings, weather-beaten and dilapidated-looking. Other buildings appear bright and home-like. What a transformation a little paint, well chosen, does make!

Paint should have a wider use on more farms with a little good taste thrown in. It is not necessary to engage a professional painter as anyone can do a satisfactory job by following the directions that accompany ready-mixed paints. However, colors should be chosen that will harmonize with one another and with the surroundings. For instance, the colors, blue and red would hardly be appropriate for the outside of a house. A frame house looks well painted white with green trimmings, as window frames, corner pieces, etc. A red porch roof adds brightness to the old homestead. The outside work of a red brick house looks well with the colors white and green.

Very few barns are painted, yet farmers who have painted their barns consider it a good investment, for, in addition to the improvement in appearance, the lumber is preserved. An old building will require more paint than a new one, as the lumber is weather-beaten and will absorb more paint. However, if a cheap grade of raw linseed oil is purchased and applied before painting, little paint will be absorbed by the wood.

It is among the farm implements particularly that paint should be more freely used. Machinery on the farm pays according to the amount of service it renders, not according to the length of time it lies idle. A binder, for instance, works ten days in a year and lies idle the other three hundred and fifty-five days. If uncared for, it is apt to depreciate far more during its idle days than during its working periods. More implements on the farm fall a prey to rust and decay than to actual wear. Decay of the wood, and rust of the metal parts can be prevented by painting. Red paint for the wooden parts and black for the metal parts is almost invariably used.

A short time ago I saw a three-year-old binder sold at an auction sale. The same machine looked as if it had seen twenty harvests. The implement shed was one of those fresh-air sheds, roofed by the eaves, where



Fig. 2—Oats Covered for Five Hours to Confine Formalin Vapor.

by the Department of Botany, Ontario Agricultural College, to test the effect of the so-called "dry formaldehyde treatment" on the germination of oats. These experiments showed that this method of treating seed oats to prevent smut did not in the least reduce their vitality. Last spring field experiments were made with this method for the control of Oat smut and the results were highly satisfactory. Some sixty-one bushels of oats were treated. These were sown in three different fields. In each case some untreated seed was sown for a check. No smut developed in the oats from the treated seed while in the oats from the untreated seed the amount of smut varied from 3 to 13 per cent.

The results obtained so far with the so-called "dry formaldehyde treatment" are very satisfactory and warrant us in recommending all who wish to grow oats free from smut to give this new method a trial. It has many advantages over the old methods, chief among which are greater simplicity, rapidity and ease of applica-

the elements hold full sway, still used on some Ontario farms. No wonder then that the above machine deprived of paint sold for about half its value.

Dufferin Co.

COUNTRYSIDE.

Members of Farm Drainage Association Hold Convention.

The Ontario Farm Drainage Association, which is a comparatively new organization, met in annual convention in London, on February 26 and 27. There was a fair attendance, and many matters of importance were freely discussed by those present. President S. W. Hyatt, of Mt. Brydges, presided. There is great need for underdrainage throughout Ontario, and particularly in the western section of the province. There are many instances where draining the soil has increased returns from seventy-five to one hundred per cent. A good deal of discussion hinged on the question of the kind and quality of tile, depth of putting in drains, distance of drains apart, and method of digging the drain. There was considerable complaint made about the quality of tile which was put out by some firms, and, as a drain is no better than its poorest tile, those draining were strongly advised not to put chipped or crooked tile into the drain. Care should also be taken when filling a drain to see that none of the tile become displaced or broken. If tile were very dry it was the general opinion that they should not be laid too closely together, if warping of the drain was to be avoided. Warped tile coming from the tile machines was attributed to carelessness on the part of the tilemaker in not having his machine properly adjusted, and in not properly making the mixture of clay. Anyone who has laid many tile thoroughly understands the difficulty of laying badly warped tile.

T. Cooper gave an interesting paper on the outlook for drainage. When the ditching machine first came into the country and began doing the work so rapidly, it was prophesied that it would only be a matter of a few years until the land was all drained, and the tile-makers would then have to go out of business. This prophecy has failed, however, as it is estimated that the output of all the tile yards in Western Ontario per year would not be sufficient to drain any more than half one township. There will be a demand for tile for many years to come. Mr. Cooper predicts that in the next ten years there will be as much drainage done as was done in the last half century. Labor, finances, and ditching machinery have been at a premium; consequently, farmers could not attempt drainage work and hundreds of thousands of acres have not produced the maximum crops, even in the stern times through which we have been passing. "One of the first requirements is that of deeper outlets," said Mr. Cooper. "Throughout Ontario there are many farms which are kept saturated by the shallow, winding water-courses which do not permit of a drain discharging into them because of the shallow depth. Frequently the creek will meander back and forth through low, level areas, thus rendering unfit for cultivation many acres of the finest land. As the gradient is usually low, the ditch fills more and more annually because of the deposition of silt. The water table is thus raised so close to the surface that crop production is impossible.

"To procure improved outlets, open ditching machines are necessary; every municipality should own such. I venture to say that in every two miles of natural water-courses, enough land could be reclaimed for cultivation to pay for the machine, and this does not involve the consideration of the benefit derived by surrounding land due to the efficient outlet," said the speaker. "There is a necessity for a standardization of the manufacture and curing of tile; this is especially true of cement. The chemical changes which concrete undergoes during the wetting, manufacturing and curing of tile is understood only to a limited extent. Then, too, many of our ditching-machine operators are not competent and experienced. They have not the training necessary to set a level; many do not even understand the principles on which it is based. It is apparent that an examination should be conducted yearly for all operators. Those successful at the examination should then be given a certificate and a license to operate the machine." Mr. Cooper also referred to the necessity of protecting ditches to prevent the trespassing of stock, and showed the necessity for soil experimental work. The members of the Association were advised to ever uphold the advantages and emoluments of systematic scientific underdrainage.

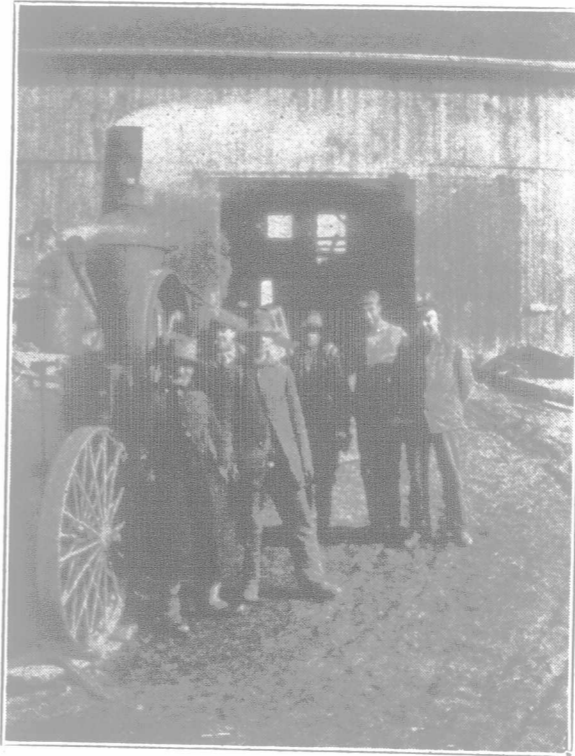
There was considerable discussion regarding cement tile versus clay tile. Cement tile were rather severely criticised, but it was pointed out by one of the members that the trouble was very largely in the curing. One maker of cement tile, who has had no complaint about the tile which he has manufactured, cures them under steam. It is evident that a good deal depends on how the tile are cured. There are poor clay tile as well as poor cement tile. Some of the members of the Association recommended that all tile be Government inspected so as to prevent poor tile being shipped out to the farmers. Tile is something which is buried in the ground, and unless those tile will stand the wear of time and are put in properly they are of little use, but where good tile are properly put in the ground they greatly enhance the value of the land. Mr. Hallett, of Tilbury, cited an instance where a farm had been drained four rods apart and the returns had been so greatly increased that the owner ran drains between the lines already in, with the result that there was a further marked increase in the production. In Ohio these are farms where it has been found profitable to put the drains one rod apart. As the value of drainage becomes more fully appreciated there will be a

greater demand for tile and for machines to dig the drains.

J. W. Sands, of Chatham, believed that considerable poor work was done in the digging of drains and laying of tile from lack of a proper knowledge of the subject. A drain poorly put in is practically useless, and is detrimental to the progress of underdrainage. Mr. Sands recommended compulsory inspection of all work done and the licensing of machine operators. While many men do their work conscientiously, there are others who are careless and are a hindrance to the carrying on of drainage work. A number of questions which every machine operator should understand were mentioned by the speaker.

The following resolutions were adopted: "That the present Act which now reads, 'Ditching machines valued at \$3,000 or less and parts thereof adapted for farm drainage be admitted free of duty' be made to read 'Traction ditching machines adapted for farm underdrainage valued at \$6,000, or under, and parts thereof, be admitted duty free.'" Owing to the increased price, only the smaller-sized machines come in under the present Act, and as there were many places where drains deeper than the smaller machines were capable of digging were needed it was felt that the larger machines should be admitted free. As the freight rate on tile is higher than on such commodities as sugar beets, the tile manufacturers felt that they were being imposed on, and that owing to the importance of drainage it would be in the interests of agriculture as a whole to have a freight rate as low as for other commodities. A resolution asking for a consideration of this matter was unanimously passed and left with the Secretary to be forwarded to the proper authorities.

The following officers were elected: President, S. W. Hyatt, Mt. Brydges; First Vice-Pres., I. McFarlane, Thorndale; Second Vice-Pres., J. E. Jackson, Toronto; Sec.-Treas., F. Ferguson, Chatham.



A Veteran Thresher.

The old gentleman in the foreground is Wm. Coleridge, of Kent Co., Ont., who still runs an outfit in his 86th year.

Alfalfa Versus Sweet Clover.

During the last few years so much has been written in the Agricultural press eulogizing sweet clover that, in many quarters, it has gained a reputation for superiority which, to say the least, is misleadingly exaggerated. A few unbiased remarks on its real value, especially in comparison with alfalfa, may, therefore, not be out of place.

The reputation for superiority which sweet clover has gained is to a very large degree due to the fact that it is able to do surprisingly well in naturally poor soil or worn-out land deficient in plant food, and in soil lacking in moisture to such an extent that neither red clover nor alfalfa can be grown to satisfaction.

No one who has seen sweet clover flourish in places where, to use a common expression, "nothing else will grow," can deny that sweet clover might be employed as a remunerative crop on the type of land just referred to. However, it should be clearly understood that, though realizing the value of sweet clover as a revenue producer on poor soil, it by no means follows that sweet clover is superior to or even equal to, other crops of its type, especially alfalfa, on good land. This should be clearly emphasized because many uncritical sweet-clover enthusiasts have made the error of concluding, from the behavior of sweet clover on very poor land, that it is also of outstanding superiority on good land suitable for growing such crops as alfalfa. The sooner such a conception is corrected, the better.

If alfalfa can be grown with reasonable success, it surely will prove superior to sweet clover in practically all respects. Alfalfa, when once established, will last for a great number of years and will continue, without re-seeding, to yield crops of high quality year after year, whereas sweet clover, being a biennial plant, will have to be re-seeded every second year unless it is given

a chance to mature seeds and thus automatically re-seed itself.

Alfalfa may be grown for pasture, hay, silage and soiling, whereas sweet clover has a somewhat limited sphere of usefulness. Thus, sweet clover is not likely to make as good hay as alfalfa; neither can it be cured into good hay as easily as the latter. As a forage crop, its chief asset lies in its ability to furnish nutritious pasture, but even as a pasture plant it is hardly equal to alfalfa where the latter can be grown successfully. As, furthermore, sweet clover has some distinctly objectionable characteristics which are not found in alfalfa, for instance, its peculiar flavor and its tendency to become a weed if not properly looked after, there is no valid reason why it should be grown in preference to alfalfa, if the latter can be grown with reasonable success. However, on land too poor to grow alfalfa, sweet clover may be used either as a forage crop or as a green manure crop for the purpose of improving the fertility of the soil.—Experimental Farms Note.

Should the Price of Wheat be Set in Canada for 1919?

EDITOR "THE FARMER'S ADVOCATE":

The organized farmers of Saskatchewan have asked the Government to set the price of wheat for the 1919 crop. Against them they have the Manitoba Grain Growers and the United Farmers of Alberta, who have not seen fit to make such request. However, it must be remembered that at the Manitoba and Alberta conventions there was a considerable minority in favor of the price being set, and also that, although these provinces are fairly well represented at the Grain Growers' Conventions they do not, by any means, represent the whole of the farming population, and the same may be said of Saskatchewan; however, there is no doubt that the majority of the rank and file of the farmers in Canada are strongly in favor of the price of wheat being guaranteed by the Government for the 1919 crop. Although the Commission appointed by the Government in 1918 to bring in recommendations as to how to aid production, recommended that the price of wheat be set for 1918 and 1919, the Government could not see their way clear to accept the recommendation for the 1919 crop, claiming that the price of wheat in the open market might be lower than the set price, and, therefore, the Government of Canada would have to make up the difference in order that the farmers might receive the guaranteed price. In that case if the Government refuses to set the price for 1919 the same as 1918 and the price in the open market drops, the total loss will fall directly on the farmers alone, whereas if the Government guaranteed the price and had to make up the difference, the loss would fall on the people of the country as a whole, which would be fairer than making the farmers as a class bear the total loss. On principle it was right to set the 1918 price to protect the consumer from inflated prices, but it was set to hold the price down, not up; therefore, on principle it is right to set the price for 1919 in order to hold it up and protect the producer.

The price is set on everything the farmer has to buy, in order to insure a profit to the producers of those articles. The General Manager of a large farm implement plant states that the price on farm implements will advance 5 per cent. in 1919, owing to the increased cost of raw material. He further states that profits will remain the same. On the other hand everything the farmer has to sell is going down, while nearly everything he has to buy is going up or being held up. Are the farmer's profits for 1919 going to remain the same?

The Government is intending, according to reports, to spend a large amount of money during the next year on buildings, highways, housing schemes, etc., in order, as they claim, to provide employment. If the Government can spend profitably large amounts of money in order to guarantee profits to urban industry, why can't it do the same for agriculture? The net profits of the average farmer were so low, even at war-time prices, that he did not earn a labor income equal to the average urban worker. If the present trend of things is not altered the unemployment problem will shortly become so aggravated that the Government will be compelled to spend a great deal more than the cost of guaranteeing the price of 1919 wheat in order to provide employment for the men who will be compelled to leave their farms.

Middlesex.

J. W. FREEBORN.

CANADA'S YOUNG FARMERS AND FUTURE LEADERS.

Topics for Discussion.

We are on the threshold of an era which will see keen commercial rivalry between nations; old things and old methods will be scrapped; it will be a young man's age, for youth can more easily adapt itself to new practices and exert itself sufficiently to make its schemes a success. There will be a greater premium placed on brains than ever before; ambition, progressiveness and vision will be the keystones of success. Now is the time for young men to get busy and by helping others you will do the most for yourself. Use your influence to organize your community and assist other districts by taking part in the discussion on the topics announced herewith. All articles suitable for publication will be paid for in cash at a liberal rate. Make this department the one young and old will turn to first because it

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Experimental Farms Note.

Price of Wheat Set
for 1919?

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YOUNG FARMERS
LEADERS.

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contains the most ideas and suggestions. The topics follow:

1. How to make the junior farmer's improvement association a success.
Outline what has been done by your local association or enumerate a few lines of work that it might well engage in. Give any suggestions you can that will help junior farmer's associations any where to leave their stamp on the community. How is a successful meeting of the association conducted? What improvement is needed most in the community or in the young men themselves? Articles should not exceed 800 words, and should reach us by March 20.

2. What can the junior farmers do to make rural life more congenial for themselves and others, and what should the "old folk" do to make conditions more satisfactory for the boy or girl?

Would more attractive surroundings, better live stock, improved farming methods or more conveniences in the home help to make the boys and girls contented and satisfied with their occupation? What is the chief attraction which lures the boy from the land, and what would be most instrumental in keeping him in the country? Articles on this topic should not exceed 800 words. Let us have the articles by March 25.

3. What lessons in agriculture has the war taught?

Have you or your neighbors learned anything new in regard to farming during the last four years? Have new crops been introduced which promise to be more remunerative than the ones formerly grown in the district. Have methods been altered or have any labor-saving devices been found valuable. Articles on this subject should not exceed 800 words, and should reach us by April 1.

Suggestion for Young Farmers
Improvement Associations.

Before the war made such heavy demands on the young manhood of Ontario a junior farmer's movement was in progress which promised to enlist a great majority of the young men in a campaign for better farming, an enlivened community spirit, more sociability amongst the young folk in rural districts and the general advancement of agriculture along broad national lines. Young men were meeting together and discussing public questions as well as matters closely related to the farm and farm operations. There was an awakening in rural Ontario and many indeed were the young men who exhibited considerable talent for public speaking and leadership. The war cast a wet blanket over the whole movement for a time but now the boys are getting back to their homes and those who were obliged to remain through the arduous years of 1917-18 are enjoying a greater measure of freedom. The short courses held by the Agricultural Representatives in recent years have brought out young men of exceptional ability and some local organization becomes necessary in order that they may commune with each other and thus keep in touch with all progress in the community, the province and national life generally. The junior farmers improvement associations are being revived and a number have been organized or re-organized this winter. The summer season will soon be here when organizations are usually allowed to get rusty from disuse. There is plenty of work for these associations during the period from April till November if they will become energetic and take community matters in hand.

The junior farmer's improvement association could assist the teacher and pupils to improve the appearance of the school grounds and make the section known for miles around as having the tidiest grounds or the best school garden. There are usually picnics and public functions to be arranged and these afford splendid opportunity for the junior farmers to prove their usefulness. Motor trips into neighboring counties is one of the best means for young or old to keep in touch with what is going on elsewhere and make comparison of methods and practices. A junior farmer's association could very profitably make at least one such trip, the route for which would be mapped out by the Agricultural Representative.

In order to provide material for next winter's discussions, experiments should be conducted by the members on their own farms and the results compared and discussed at the meetings during the winter months of 1919-20. These would have a two-fold value; they would furnish information for all the farmers in the neighborhood and the discussion arising out of a consideration of the subjects at the regular meetings would maintain interest as well as improve all those who took part. This line of work presents many opportunities and the advantages accrue to those who take the most active part.

While the primary object of these associations is for the improvement of rural life and the advancement of the members along educational and social lines they might find some local co-operative endeavor instrumental in keeping the organization vigorous and progressive. For instance the members might engage in what is known as community breeding. Swine would show most immediate results and the returns would be forthcoming soon enough to offer some financial reward for the labor expended. Such a scheme could be worked out somewhat as follows: The club should agree on one breed, which of course, should be of bacon type, and the association, en masse, would do well to adopt a standard so uniformity could be featured. Members would then each select a sow conforming to that standard and of breeding age. If there is no good boar of that particular breed in the neighborhood one could be purchased on the co-operative plan and placed in the

charge of someone who would agree to handle him for a certain percentage of the service fees. At the end of 12 months the association would have a shipment of hogs that should be uniform in type and finish and which should command a premium on the market. This scheme could be extended to embrace pure-bred stock if so desired, and it would be the means of placing the district on the map. Besides working for improved breeding stock and increased returns, the plan would arouse an interest that would hold the association together and make it possible for the organization to leave its stamp on the live stock produced in that locality.

There are other fields of endeavor opening up to the young farmers of Canada. The foregoing suggestions are of a general nature but each locality presents opportunities which the junior farmers should not pass over. Now is the time to jump in and get these junior farmers improvement associations moving. There should be some objective, some goal to attain. You can help your own organization and help others, by discussing the topics outlined in this department. Let us have your suggestions to publish in these columns.

AUTOMOBILES, FARM MOTORS
AND FARM MACHINERY.

Power Required of Tractors.

Even though manufacturers build tractors with the drawbar horse-power varying from 1 1/2 to 60, the agricultural engineers at the Iowa Agricultural College have found in a recent tractor survey that in many cases the power requirements of the farmer's field machinery evidently were not considered when tractors were bought.

For instance, in one locality, including 187 tractors, forty-nine purchasers were disappointed in their machines because they developed less power than was expected. Twenty-three owners had bought larger outfits than they needed. Eighty-two out of 187, or 44 per cent., were dissatisfied.

Manufacturers and salesmen can overcome this condition considerably if more attention is paid to the power requirements of machines used by the farmer other than those sold with the tractor.

The tractor must not only have plenty of power to handle the uniform load, but a large reserve is always necessary to overcome the unfavorable conditions.

Some Sample Power Requirements.

To answer intelligently the many inquiries that come to the Iowa agricultural engineers, we have made extensive field observations, some of which are as follows:

A tractor gang plow, three 14-inch bottoms, plowing 6 1/2 inches deep in a sandy loam soil at a rate of two miles per hour required as high as 10 h.-p. to get through the tough places.

A corn harvester in medium corn after frost used only 3 h.-p. when travelling 2.8 miles per hour. A potato digger, digging at the rate of two miles per hour, called for 6.7 h.-p. on the average.

By a series of tests on corn stubble it was found that the ordinary disk travelling about three miles per hour would require 6.75 h.-p. if the disks were set to do a good job; and a four-section, 24-foot harrow moving along at two miles on fall-plowed ground, used about 4 1/2 h.-p.

Pulling a manure spreader loaded with 3,880 pounds of wet straw and manure, unloading at 2.6 miles per hour, used approximately 5 h.-p.—J. S. Glass, Iowa Agri. College.

Gasoline Power on the Belt.

EDITOR "THE FARMER'S ADVOCATE":

The horse-power rating of gas engines placed on the market in recent years has been very deceiving and resulted in a lot of dissatisfaction to purchasers who had been accustomed to the steam engine. My experience for belt work has been in comparing gas power with equal rating of steam to divide the gas rating by three e. g. If a gas engine is rated at 30 h.-p. a steam engine of 10 h.-p. will handle the same machines. I might just mention here that the steam tractor of 20 h.-p. rating will under brake test actually develop about 60 h.-p.

This comparison applies more to the multiple cylinder type of gas engine in the light weight tractor on the market to-day which has to rely on its throttle to carry an even speed through shocks from excessive or uneven feeding of machine driven, rather than weight of fly wheel. I could name several gas tractors rated at about 25 h.-p. on the belt operating at about the same normal speeds, yet we find the bore and stroke measurements vastly different. Let us assume that the quality of material used in construction and machine work is equal and allow a small margin for slight advantages of design then the engine with the most liberal measurements to produce power is the one to buy. It is folly to expect a certain h.-p. from an engine if it has not the required measurements to produce it.

The number of cylinders, the tractor of our choice should have, is another problem. The single cylinder is perhaps the most economical on fuel but for larger than 12 h.-p. the excessive weight and uneven belt motion make them almost a thing of the past. A double cylinder engine with a little higher speed is a more practical proposition and for belt work of intermittent load this type of engine will be found to have plenty of snap, a good weight of fly wheel to insure steady motion

and the engine parts such as main bearings and crank-shaft of sufficient size and strength to carry a heavy belt and stand up under severe service.

The lighter weight four-cylinder type of engine will be found at its best in the tractor work as an engine of this type of equal rating of the double cylinder does not give as efficient belt service due to lack of flywheel weight. It is true the four cylinder engine picks up quickly but a sudden shock will retard its speed unless it has a large reserve of power. A slight variation of speed in tractor work is of small import but on a silo filler a reduction in speed when the machine gets an extra sheaf or two is, the very last thing desired. The four cylinder type of 30 to 60 h.-p., however, carry sufficient weight of fly wheel to overcome this deficiency for average farm work, while I favor the two-cylinder design engine for belt work the four-cylinder type does very well on work that it can handle and has less vibration which makes it preferable for tractor work.

A tractor with the belt hung directly on the crank-shaft avoids bevel gear or fibre transmission and as a result then is no lost power from engine to machine driven.

A gas engine while having many advantages does not under the best of operators give the continuous efficient service of the steam engine and this is a strong point in favor of plenty of reserve power. If a person intends to follow custom work to any extent select a gas tractor of about twice the power the manufacturers of silage cutters and threshers recommend and it will handle its work with ease, be economical both on fuel and repairs and in the end prove to be a better investment than a lighter machine. Your troubles just begin when you start to overload the gas engine.
Wentworth Co., Ont. A READER.

THE DAIRY.

Another Method for Determining
Milk Prices.

We learn from a news bulletin issued by the Minnesota Agricultural Experiment Station that another method than the direct cost of feed and labor has been proposed by F. W. Peck of that station for determining the price of market milk. This method is suggested because "no satisfactory basis for determining what the price of milk should be has been made use of hitherto." Previous formulae have considered the quantities of feed and labor necessary to the production of 100 lbs. of milk of a stated standard. In one or two cities in the United States the price of milk is determined by making certain adjustments to the local price of cheese.

In Canada, there is an added factor to be considered, other than the price of market milk alone, and that is the equalizing of the price of milk for all purposes. But this problem is complicated because the price of milk for cheese manufacturing purposes is largely set by the export market for cheese. As was pointed out to a representative of "The Farmer's Advocate" recently, if the cheese produced in Canada were all absorbed by the domestic market as is the case in the United States, it would be a comparatively simple problem to equalize prices to all classes of producers. As it is, however, formulae based on the cost of feed and labor are difficult to adapt to this situation, although perfectly applicable for six months of the year when cheese is not being manufactured. Then too, there is the fact that cheese constitutes fully 50 per cent. of the total value of dairy products manufactured in Canada, which fact makes it dangerous to tamper with so important a branch of the industry.

The "Peck" method of determining milk prices takes the price of New York extra butter as a basis and proceeds by fixing upon a differential between the price of the butter and the price of sweet milk, as marketed daily; also another differential for the feeding value of skim-milk contained in the whole milk. Whether this system is of any value to Canadian milk producers, with manifications, must be left for them to decide, but the working out of the method is described as follows:

"The first differential is determined by adding 25 per cent. to the price of New York Extra butter and then multiplying the total by the test of the milk. This allows for the spread between the butterfat content of the milk and the butter made from such fat; also for extra quality and extra service.

"The second differential is arrived at by assuming that 100 pounds of whole milk is equal to the farm value of one-half bushel of corn. As there is about 85 pounds of skim-milk in 100 pounds of whole milk, the feeding value of skim-milk is 85 per cent. of the farm value of one-half bushel of corn.

"This is the way the problem would work out:
Average price New York Extra butter, December, 68 cents. This plus 25 per cent. makes 85 cents.
This multiplied by 3.5 per cent., the butter-fat content of the milk, gives \$2.98
Price of corn per bushel, \$1.30. Of this one-half is 65 cents, and 85 per cent. of 65 cents is 55 cents,
the skim-milk differential..... .55
Total (price per cwt. at local station) \$3.53

"The use of this method of determining the price of milk at any time allows the use of a ready reckoner table that shows at a glance what the price of milk should be as based on the price of extra butter in New York."

Good Dairy Herd Management in Nova Scotia.

A good deal of sound practical advice regarding the management of a dairy herd is contained in a pamphlet compiled by John M. Trueman, of the Nova Scotia Agricultural College, at Truro. While the bulletin was written with Nova Scotia conditions in mind, the recommendations are capable of wide applications and they are particularly reasonable now that summer conditions are approaching and the natural increase in the herd has to be provided for. The following paragraphs are taken from the bulletin in question.

The feeding of dairy cows during the summer months should have more attention than it often receives at the hands of the farmer. It is a common practice to turn cows out to pasture in the latter part of May and give them no extra feed until they are put in the barn again in the fall. In order to make this method profitable the pasture must be of the very best. In most cases the dry weather of July and August shortens up the grass and the cows shrink a great deal in their milk flow. Where pastures become short in this way it is imperative that some supplementary feed be given if any large flow of milk is to be maintained. Some green forage is valuable at this time. It may consist of clover from the hay field in July, of oats and peas in August, and of corn and white turnips in September and October. The oats and peas should be sown thickly on good land as early as possible in the spring. Sown the latter part of April or the early part of May they will be ready for feeding by the middle of July, or sometimes earlier. A second sowing made the last of May will be ready for feeding in August. (2½ bus. oats, ¾ bus. peas per acre.)

In addition to the green feed a small quantity of bran and cottonseed meal may be fed to advantage. Cows that have been milking a long time and are only giving 20 to 25 pounds of milk will not need much, or any grain if they are given an abundance of green feed, either from soiling crops, or from a good pasture. Cows giving 30 lbs. daily will need some grain in order to keep milk flow up to the maximum.

Another advantage gained from grain when the pastures are rather short is the better condition in which the cow goes into the barn in the fall. This enables her to do better work during the winter and even during the whole of the next period of lactation. A cow that is allowed to get very thin and freshens in that condition, will never give as much milk as if she had freshened in good condition.

Especially care should be given the cows at calving time. They should have at least six weeks' rest from the time of drying off until freshening again. The grain ration should not be stopped at this time. They need about the same amount (say 6 to 8 lbs.) and about the same mixture as they would receive if they were giving 25 lbs. of milk. This gets them in shape for the work of the next lactation period and is fed wisely used.

About ten days before freshening they should be given succulent feed as far as possible. The only grain that it is wise to feed at this time is wheat bran. This can be fed in liberal amounts right up to calving time. The bran is loosening and cooling in its effects upon the system, and prepares the cow for the dropping of her calf. Furthermore, wheat bran contains a large amount of ash, and other material that is good for the developing calf.

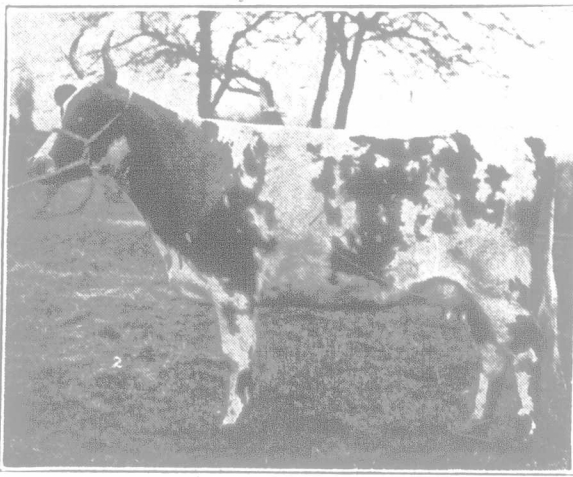
At calving time the cow should be placed in a comfortable, well-bedded box stall. As soon as the calf is born the cow should be given all the warm water she will drink. This will help to keep her from having a chill, and make it much more likely that the afterbirth will be properly expelled. The box stall should be furnished with plenty of fresh, dry bedding after the calf has arrived and the cow and calf not left in wet, cold quarters.

The cow should be fed wheat bran for the first few days after calving and not much heavy grain given until the swelling, or caking is pretty well out of the udder. A large amount of caking is not harmful if the cow is not overfed until it subsides. In fact, a much swollen udder indicates a good milker and is a welcome sight to the observant dairyman. The swelling may extend

along the underside of the belly without indicating anything wrong.

In feeding the dairy calf the first feed given should consist of the mother's milk. If the cow is a heavy milker the calf may easily get too much if allowed to suck all it wants. Light feeding for the first week or two should be the invariable rule. It may be allowed to suck for a day or two, or until the milk is good for use, at the end of four or five days. After that it should be fed from the pail preferably three times daily until it is two weeks old. A small amount at each feed is the rule, not more than a quart at a time for the first ten days. After that, part skim-milk may be substituted for whole milk, and by the time it is three weeks old all skim-milk may be given.

At this time some fine hay and grain should be given in addition to the skim-milk. A little fine mixed hay should be put in a rack fresh every day, where the calf can reach it easily. A grain mixture should be made up of equal parts of bran, middlings, ground oats and one-quarter part of oil meal. A small handful of this mixture may be given daily until the calf learns to eat it with relish. The meal should be put in a box dry after the calf has had its milk, as it will be masticated better and be more useful to the calf if it is fed dry. Great care should be taken to keep the feed box clean and fresh, also all pails used in feeding should be cleaned thoroughly every day. The amount of grain fed may



Netherton Jeanette.

Sold recently at Mr. Clement's sale (Scotland) for 500 guineas.

be increased gradually until by the time the calf is three months old it is getting some two pounds or more of the mixture per day. The skim-milk may be increased to eight quarts per day given in two feeds.

The importance of feeding calves liberally the first year cannot be too strongly emphasized. If the calf is not fed enough to make it grow well the first year it will always be under sized. It is a better practice to feed some grain the first year and none the second than to feed none the first year and attempt to make it up by feeding heavily the second year. More returns in growth will be obtained by feeding grain to the animal when it is young than at any other time.

POULTRY.

What Colds Did to the Flock.

EDITOR "THE FARMER'S ADVOCATE":

A hen with a cold is not a very serious danger in a flock, provided that hen is isolated as soon as discovered and measures are taken at once to prevent the rest of the flock from becoming infected. But when a cold runs through a whole flock it usually means that there will be very few eggs for a period of from a month to six weeks, so when I discovered one morning that three of my flock of twenty-four Barred Rocks were sneezing, and snuffling, breathing through their mouths, and that most of the remainder had straw and dust sticking to their nostrils, I was considerably alarmed.

I was feeling rather proud of my birds just then, for at a nearby laying contest a pen of five from my flock had performed in a highly satisfactory manner. Half of my flock were early-hatched pullets, and at that time, about the middle of December, they were turning out the eggs at a rate of six, seven or eight a day. The remainder of the flock were hatched early in June and were just on the point of laying when this epidemic of colds broke out.

For several minutes I was at a loss to know what had caused the colds. The hen-house was free from drafts, had a straw loft to help keep it dry, was well lighted and was plenty big enough to accommodate the twenty-four birds without crowding. Finally I hit it. Two evenings before I had received my birds back from the laying competition mentioned, which had been an affair of six days' duration, managed in connection with a large poultry show. I put the hens on the roosts in the dark without examining them in any way, and I discovered at last that two of them had had colds and had, in all probability, spread the disease to the rest of the flock. Either they had caught cold in the drafty show-rooms or it had been caused by the change from a heated building to a comparatively cold hen-house.

My first step, after giving them their regular morning grain feed, was to give them fresh drinking water with a pinch of potassium permanganate in it. Colds spread through the drinking water but a small quantity of potassium permanganate will stop or materially lessen infection. I had been giving them moist mash at noon, consisting of equal parts of bran, shorts and chopped oats. To their regular portion of this I added a small handful of Epsom salts and about a cupful of chopped raw onion. I believe that raw onions are as good for chickens with colds as they are for human beings with colds, and while they may cause a few tainted eggs, when many of the flock have colds there will not be many eggs, so what's the difference? There was no more medicine for the flock that day, but when I finally left them for the night there was an atmosphere sufficiently charged with the smell of onions to cure all the colds those birds ever had or ever would have, and I hoped it would.

But I was not destined to see the effects of my doctoring, for the next day, or rather in the night, I awoke with that feeling experienced by all those who caught the Spanish influenza and was sentenced by the doctor to stay in bed till my temperature was normal. The chore of feeding the hens was given to a younger brother, and it was ten days before I saw them again. When I did finally carry out their feed to them one morning what I saw was not very encouraging. To be sure, the colds had disappeared but half the flock were perched on the roosts, most of the remainder were standing around with their heads drawn in, shoulders hunched and feathers ruffled, and only three or four bright red combs in the whole bunch. The egg-record sheet on the wall showed that the best performance of the twenty-four pullets on any day in the last week had been four eggs, and for the week ending Dec. 28th the total production was twenty eggs. Those miserable colds had certainly left their mark on the egg sheet and, judging by the appearance of the hens, there would be no eggs for weeks.

However, I set to work. The straw on the floor was dirty and damp and though it contained quite a bit of grain it offered little inducement to the birds to scratch; so I cleaned out the house thoroughly and put in clean, dry straw to a depth of about ten inches. During the process the hens shook off their lethargy in the attempt to keep away from broom and fork, and a few handfuls of grain in the new straw started some of them scratching. I gave them small rations of grain the first few days and by keeping them hungry made them more willing to exercise for their meals. On general principles I gave them a small handful of Epsom salts in the drinking water.

While the birds had colds they had been fed chiefly on grain and an occasional mangel but, after they came into my hands again, I started with the following system: In the morning they were given a scratch feed of equal parts wheat, corn, oats and buckwheat. I soon found out just how much they would eat up clean inside of a couple of hours. At twelve they had a moist mash



Delegates to the Recent Dominion Poultry Conference at Ottawa.

Value of Early Hatching

Year	Hatching Month	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
1915-16	March	11.4	36.8	43.4	40.6	52.8	49
	April	00.0	8.3	24.6	29.5	41.8	44
	May	00.0	00.0	2.3	7.1	28.8	36.5
1916-17	March	41.16	53.42	28.8	35.0	45.0	42.2
	April	00.0	30.5	40.7	54.8	52.7	51.2
	May	00.0	00.0	6.5	18.0	29.5	39.0
1917-18	March	24.9	32.4	26.6	24.1	18.6	36.6
	April	00.0	10.2	30.0	28.0	25.7	39.5
	May	00.0	00.0	23.3	48.6	24.5	29.0
1918-19	March	27.0	47.2	63.1	54.9	—	—
	April	00.0	23.0	48.7	55.6	—	—
	May	00.0	00.0	23.9	44.0	—	—

consisting of equal parts bran, shorts and chopped oats with three-quarters of a pound of fresh ground bone daily, the whole moistened with water till in a crumbly, not sloppy, condition. At one o'clock I took away what mash they had not eaten and gave them a mangel, split in two, and each half stuck on a nail. In the evening, or rather about half past three in the afternoon, for it got dark early those days, I gave them in the litter almost twice as much scratch feed as they had in the morning so that every hen had a chance to get a full crop to carry her through the long night. A supply of rolled oats was kept before them in a hopper all the time, and also grit and oyster shell. They were given water to drink except on very cold days, when the water froze in a few hours, and then I gave them clean snow.

A week of this feeding brought no results in the egg basket. In fact, for the week beginning Dec. 29 the flock laid only 16 eggs, or four less than the week before. However, I was satisfied for I knew that the birds were in much better condition than when I started on my new system of feeding. They scratched more, they sang more, there were more fights over pieces of meat in their twelve o'clock feed. They ate more, and though feed was worth nearly four cents a pound I was glad to see them do it.

The next week I had twenty-two eggs from the flock. During that week I lost a bird which had become crop-bound and died in spite of massaging and an operation. I have relieved crop-bound hens successfully several times, but in this case the bird died the day following the operation. Two of my early-hatched pullets started to moult about the middle of January, and shed their neck and tail feathers. I do not know any cause for this unless they might have eaten more ground bone than was good for them.

For the week beginning Jan. 12 the egg-record showed a total of forty-eight eggs, a considerable improvement, and for the next week a total of seventy-three, a creditable but by no means wonderful performance. It showed me that if I had let the flock catch colds I had at least been able to bring it back to condition again. A week or more of mild weather toward the end of the month resulted in a production of ninety-three eggs, about 58 per cent, production from the twenty-three hens in the week beginning Jan. 26th, and I was satisfied that the birds were making up for the time lost in December.

I consider that those colds cost me about four weeks' eggs, about fifteen dozen at least, and with eggs at seventy-five cents a dozen that means a loss of \$11.25. I have charged that up to experience, and next time I shall see that no hens with colds go into a healthy flock of mine. "BARRED ROCK."

Early Hatched Pullets.

Very few poultrymen, who have really tried to take care of their flocks like to have the chickens hatch as late as May and June, which is so frequently the case with the farm flock. The greatest factor in profitable poultry keeping is probably the number of eggs the flock will produce during the three winter months, December, January and February. In some respects the degree of profit from the flock depends upon the earliness at which the pullets start to lay, and it is usually considered that about six months from hatching time are required to grow a pullet ready to lay. Prof. W. R. Graham, of the Ontario Agricultural College, presented some figures recently for the consideration of poultrymen and had this to say regarding the value of early hatching:

"Early-hatched pullets usually lay much better than hens during the winter. Our experience would indicate that it would take from five to six months to mature a pullet ready to lay. Of course, some families of the same breed mature earlier than others, and the general care of the chicks while growing is of importance. Then again, March hatched chickens lay at a younger age than do those hatched in April, while those hatched in May or June are still slower to mature, probably owing to lack of daylight in which to see to eat when nearing maturity.

"From the accompanying table giving the percentage egg production from Bred-to-lay Barred Rocks hatched in March, April and May for the last three winter seasons and for the year 1918 up to December 31 it will be noted that in November, 1916, the March-hatched pullets fell off in production. The winter of 1917-18 was unusual in many respects. We were obliged to change the attendant in October, and furthermore the grain feed was changed. These conditions,

with an exceptionally cold winter, leave one in doubt as to why the birds did not perform as usual. Taking all the figures one can see the advisability of hatching pullets in late March or April where winter eggs are wanted.

HORTICULTURE.

Growing Strawberries for the Factory.

The following comprehensive treatise on strawberry culture is a reproduction of a paper delivered at the recent Convention of the Ontario Fruit Growers' Association by Jas. E. Johnson, Simcoe, Ont. Mr. Johnson is a recognized authority on all matters pertaining to fruit growing, and the address which we reproduce in the following paragraphs will be found very instructive:

"The success of strawberry growing depends on the liking and experience the grower has towards this particular line of horticulture. I shall endeavor to outline my way of growing strawberries for the canning factories as concisely as possible. I feel that we all have a great deal to learn about strawberry growing at the present time, I finding it far harder to grow strawberries during the last three years than it was ten or fifteen years ago, owing to the costs of production and unfavorable climatic conditions. The old cry that the strawberry industry is being overdone is not founded on facts, as the local markets for the past two years have been very high for first-class, well-packed berries.

Selection of Site.—It is desirable to choose a piece of ground just loamy enough for good drainage, situated at a fairly high elevation, which location is warm and not subject to late frosts in blooming time. Good air drainage is very important in the growing of strawberries; while you may make a success certain years in growing strawberries on low lands you are also taking a great risk of frost at blooming time, except close to large bodies of water.

Soil.—The ideal soil is a good rich, humus-containing loam, (which is well drained) with clay sub-soil. The one condition of soil on which it is never advisable to plant strawberries is fresh-plowed old sod. I prefer to follow strawberries after a good crop of corn or beans which has had the best of clean cultivation.

Manuring and Fitting.—After the selection of the best available site for the strawberry bed has been made comes the immediate work of preparing the land for planting, and as strawberries are heavy feeders they require from 30 to 40 tons of manure to the acre to be applied just before plowing. I prefer plowing the manure under rather than top-dressing and working in with the discs, owing to the fact that the strawberry plants have long roots the feeders of which will soon feed the plant from the manure; besides, where the fertility in the soil is located there is where the roots go, and by having the fertility fairly deep in the soil the roots will naturally go there for nourishment. The plant will not stand dry weather as well when the roots are short as when the roots are deep in the soil.

Plowing.—On heavy loamy soils I would prefer to plow in the fall of the year, but on sand-loam soils I would just as soon plow in the spring after top-dressing with manure in the winter time, and in either case I would begin cultivation by harrowing and discing as early in the spring as possible and continue until planting. I use a float in place of a roller for the levelling and pulverizing of the ground before marking.

Marking.—I have my marker made so that my rows will be 42 inches apart, planting in the row from 24 to 30 inches apart.

Digging the Plants.—Digging is done with the 5 or 6-tined fork, digging the whole row from the last year's set bed, having in the field plenty of wet sacks to cover the plants to keep them from drying out before being cleaned. It is good policy to dig the plants just a short time before one is ready to clean them.

Cleaning and Selecting Plants.—This should be done very carefully, discarding small and dark-rooted plants and removing all old laterals and dead leaves. The roots are of a light yellow color. There has been a great deal of money lost by the strawberry growers in not being more particular in their selection of plants.

Planting.—The time to set plants depends on your location. In Norfolk County I prefer to plant the first week in May, keeping the tops of the plants wet from the time they are cleaned until planted. Endeavor to get your plants dug and planted the same day if possible.

There are many methods in use for the planting of strawberries: spade, dibble, plowing a furrow, and the planter. I have used both the spade and the planter, and will say that if the spade is to be used it has to be used by those experienced in planting with a spade. The trouble is that a great many planters leave an air space at the bottom of the plant when the spade is used. The planter is especially good in dry weather as the plants are watered, which helps to pack the soil around each plant. The dibble, I know, has been successfully used by a good many planters, especially in light, loamy soil. It is necessary to exercise considerable care in planting and have the plants set so the top part of the crown is level with the top of the ground. If planted too deep the tender leaves cannot push their way through the ground and the plant is either stunted or dies, and, again if set too high, the roots dry out and the plant dies.

Cultivation.—This should begin as soon as planting is completed, with a cultivator having small teeth that will keep the ground level, also working close to the plant without covering it. Take care not to cultivate too deep, for a dust mulch is what is required. Cultivate often enough so that the weeds are killed before they come through the ground, and as soon as the runners start, cultivate only in one direction and narrow the cultivator until the matted rows are 15 inches wide. Then place the runner cutters on your cultivator and keep the rows 15 inches, and cultivate until frosts.

Picking off Blossoms.—It will be necessary to go over the newly-planted field twice to keep all the blossoms removed, as the young plants cannot grow to be strong, healthy plants and produce both laterals and fruit.

Hoing.—This should be done carefully about five times during the summer to keep all weeds from the plant and at the same time placing the runners, keeping in mind that you want an even-matted row 15 inches wide.

Mulching.—I believe in protecting the plant for the winter by using 4 to 5 loads of straw to the acre, spreading on top of the row. This is left on until the next spring and then moved, when the plants begin to turn white, to between the rows, which serves to conserve the moisture and keep down the weeds. This is a great comfort to the pickers. It is generally necessary to go through the patch before the bearing season and pull up what weeds may appear.

Picking.—Harvesting for the canning factory should not start until the berries are thoroughly ripe, going over the patch twice each week, under normal weather conditions, in the strawberry season. The pickers are furnished with a tray each holding 6 empty baskets, and as soon as the 6 baskets are filled it is taken up by one of our men. He in return will give the picker another empty tray containing 6 baskets, also a ticket for the 6 baskets of berries picked. This enables the pickers to be continually employed in the picking of berries, and thus are not nearly so apt to miss picking some of the berries in the row as they would be if they carried their own trays to the packing house. I could enlarge here on many advantages in keeping the strawberry pickers constantly employed in the picking of berries. We pay once a week, retaining ½ cent per basket as an assurance that the pickers will stick to the work for the whole season. It is always easy to get pickers when the berries are at the best, but towards the last of the season when the berries begin to get small, some pickers get a strong mind and a weak back and feel that they have earned so much money while the picking was good that they will not pick any more berries that season. Therefore, I have found this plan of settlement has worked out to the mutual interests of myself and the pickers. I have always worked co-operatively with my pickers, bearing in mind that berry-picking is hard work, and I pay them a price per box so they can make a good wage. I have always had plenty of pickers. The berries are all carried by our men to the packing houses and packed in crates, being careful to see that all boxes are well filled. If I were growing berries for shipment the packing house is the place where I would try to build up a great trade in the packing of the berries, and my instructions to the packer would be that every box of berries must be "good to the bottom," giving the most exacting consuming trade honestly packed berries. Picking should also be done every day. We leave our berries with a stem ¾ inch long. I believe there is a great future for us in the strawberry business if we would pay more attention to the picking and packing of our berries for the consuming public, and with the great cost at the present time in the production of berries we will have to look for markets to place a part of our berries at a higher price than the canning factory has been paying. This has been proven quite clearly the last 3 years as strawberries have been in big demand by the consuming public, but the growers like myself who contracted early did not get a big price, and have not made as large a profit as those who sold on the open market.

Varieties.—I grow Parson's Beauty and few each of Sample, Kellogg's Prize and Senator Dunlop.

As soon as picking is completed, if the patch is in good condition, I start the mowing machine and as soon as dry, rake off the straw and begin cultivating with a 2-horse corn cultivator, narrowing the rows to 12 inches, then I harrow twice crosswise and follow by hoeing and keeping cultivation up until frost. Then I mulch and care for the plantation the same as for the first year. It will pay well to clean up old patches as long as one can have good matted rows.

The cost of growing strawberries at the present time is far more than it was a few years ago. My approximate cost to grow an acre of strawberries during the year 1918 and 1919 is as follows:

Cost to Produce One Acre.

For the first year:	
40 tons manure at \$2.15	\$86.00
Hauling and spreading manure	12.00
Plowing	3.50
Preparing to plant	5.00
6,000 plants at \$6.	36.00
Planting	8.00
Cultivating	10.00
Hoeing, placing runners, etc.	40.00
Straw spreading	30.00
Taking off straw	2.50
Management	10.00
Interest on investment	10.00
Rent of land, 2 years	40.00
	\$293.00

My average yield for the last 3 years has been 4,000 baskets to the acre. The cost of picking, includ-

ing breakage of baskets, and building packing sheds average $2\frac{3}{4}$ cents per box, or a total of \$110.00 per acre. This makes a total cost of \$403, or about 10 cents per box for the first year.

For the second year:

Twenty-five tons manure	\$53.75
Hauling and spreading	7.50
Mowing and moving straw	5.00
Cultivation	5.00
Hoeing	15.00
Straw and spreading	30.00
Taking off straw	2.50
Management	10.00
Interest on investment	6.00
Rent, 1 year	20.00

\$154.75

The cost of picking, etc., for the average crop of

4,000 baskets per acre remains \$110. Making a total cost the second year of \$264, or about 6 $\frac{3}{4}$ cents per box.

I also have been able, at times, to save a well-cared for patch for years, but in order to do this you have got to give your patch the best of attention, but you can readily see that the cost of production is cut down considerably after the first year. During the past three years strawberry growing in Norfolk County has been unprofitable to the careless growers as they have lost many dollars in trying to produce a crop of strawberries."

FARM BULLETIN.

W. A. Brown, Chief of the Poultry Division, Ottawa, has arrived in England and will remain for a period of three weeks, attending the International Poultry Conference, and studying the export poultry situation.

Parliament and Proposed Legislation.

FOLLOWING the practice laid down by custom in the House of Commons, the first major duty of the Parliament of Canada is to debate upon the address in reply to the speech from the Throne. It is customary, also, for the motion for an address to come from a member on the Government side of the House, speaking in English, while the motion is seconded by a member from the same side, speaking in French. This year it was undoubtedly fitting and, withal, quite good politics, that both addresses should be made by returned soldiers, both of whom, however, spoke in English. Following these initial speeches the debate is declared open to all. There are few rules except those of strict parliamentary procedure, which are carefully guarded and enforced by the Speaker. Custom again decrees, however, that the debate be led by the leader of the Opposition who is followed by the leader of the Government, after which the order of speaking is made up by the whips from names of members who have signified a desire to speak. At time of writing, something more than a week has gone by since the debate on the address began, and there seem no indications of a wind-up being reached before Tuesday (March 11). Before this reaches readers of "The Farmer's Advocate" it is to be hoped that everyone who desires will have been given a chance to speak so that the House may get down to the business for which it really met. It is rather to be feared, judging from impressions gathered as a newcomer in the gallery, that the end can only come when every semblance of an idea gathered by members during the recess has been placed upon the pages of Hansard, together with most of the literature published during that period. As an instance, one honorable member delivered a speech occupying nearly nine pages in Hansard, of which over two pages was taken up with eight different quotations, printed in very small type. All of this was inflicted upon everyone within sound of his voice.

Bolshevism as it exists in Russia has been the subject of extensive argument across the floor, very little of which has been in any way relevant to the subject of the address. Humor is not unknown—thanks be—and it must be that some members recognize the paucity of ideas they possess and endeavor to fill in with political, and more or less witty, sallies. Even these, however, pall on one, especially when the same excuse for repartee, bandied about from pillar to post and much bedraggled, is taken up by some new speechmaker and, by his imagination, forced to an ignominious survival for lack of a real idea suitable to the floor of the House. Worthy representatives of the people on both sides of the House suffer from ennui as a result of a prolonged debate, and incipient yawns, newspapers and vacant seats are alike conspicuous, the latter, perhaps, most noticeable. We have noted for instance that out of 24 front bench seats on the Government side, only four were occupied, while the same held true in almost equal proportion across the floor. It is a striking fact about the deliberations of the House that at one time order in the House may be very hard to maintain, the Speaker having frequently to call out "Order" in a loud voice, to stop the buzz of conversation and the rustle of newspapers; while, half an hour later, perhaps, when another speaker takes the floor, quietness immediately follows, the press gallery fills, members again take their seats and everyone is at attention.

Now, we would not like to spread broadcast the idea that the proceedings of the Canadian Parliament are a farce, because such would be far from true. There does seem to have been considerable time wasted and we are convinced that much of this needless waste could be eliminated. There is at present a movement on foot to raise the sessional indemnity of members from \$2,500 to \$3,500, and this movement has chances of success. It would seem, when a man is elected to represent the wishes of as many as 60,000 people in the Parliament of the country, often at a considerable personal loss of time and money, that he should be worth \$3,500. But, like every other group of persons, it is difficult to see how some of the 234 members are ever worth even \$2,500 to their constituents. However, they are the people's choice and, as such, should be allowed, perhaps, to claim their share of intelligence. We do think we are justified in saying that what the average citizen may say upon the floor of the House rarely cuts much of a figure, so far as the fate of a piece of legislation is concerned. As governments now seem to be conducted the program for a session is

pretty much cut and dried before the members gather together. New members who reach Ottawa for their first session soon find that some of the things they may have intended to say and legislation which they may have planned to urge, would seriously embarrass the Government; and that, moreover, to introduce new matter of any considerable importance other than along the lines of the prepared program, would be frowned on by "the hands that rock the cradle." Obviously this is to keep a bold and united front before the country—and the Opposition. As a result, policies are discussed by the Cabinet, or in caucus; and thus it is that members really do their best work for their constituents off the floor of the House. And thus it is, too, that the House does not begin to sit until three o'clock in the afternoon and debates often continue on into the wee sma' hours. The forenoons are spent in caucus, or committees, or in consultation with officials on matters pertaining to the constituency—if they are not spent in bed.

Reference has been made to the wordy debates which take place in the House, and waste time. All this time is not wasted; all the speeches are not poor ones and of no importance; and it is probably correct to say that some are not without their effect on the policy of the Government. Debates such as the one on the address, and the one on the budget which is to follow, are probably useful to the voter at home, who is given an opportunity of reading what his representative is saying; just as they are useful to the member, who can declaim vigorously against the evils, or applaud the virtues of any particular party, action or piece of legislation, sure that the pages of Hansard will be copied and eventually reach the people who elected him. The two debates mentioned above afford opportunity for members to discuss everything from a sandstorm in Timbuctoo to the number of strands in a wire fence. The discussion inevitably brings forth a variety of viewpoint and a medley of ideas, among which the Government may pick and choose if they so please. No doubt, legislation forecasted in the speech from the Throne is not absolutely cut and dried until the debate has proceeded, for fear some member of the Opposition may have an idea, or, perchance, one of their own followers may shed a shining ray of wisdom upon the troubled path of the party in power, whichever it may be. One thing we have concluded and that is that the great majority of the people's representatives endeavor, individually, to realize the weight of their responsibilities. Capacities vary, in brain power as well as stomachs and lumber wagons, and although each man may be prejudiced by his own interests, the power of the ballot is appreciated pretty generally by the men who have won elections. They strive to please.

Proposed Legislation.

Naturally, the debate has centred about the Government legislation forecasted in the speech from the Throne and it is, perhaps, opportune now to review the purpose of the principal items in the program. No one appears to question the advisability of making provision for soldier settlement, which act will occupy a very important place in the reconstruction program of the Government. Most readers are, doubtless, already familiar with the general outline of the plan, which provides a maximum loan of \$4,500 for land, \$2,000 for live stock and equipment, and \$1,000 for permanent improvements, to each soldier qualifying, physically and by experience, for land settlement. The money for land and improvements is loaned on the amortization plan, repayable over a period of twenty-five years, that for live stock and equipment repayable in six years. It is probable that some amendments may be found necessary, so that we will leave this important matter for now, except to say that unless there should be too much "mollycoddling" in the act, the intention of the Government seems to be to do the best possible for the soldier who wishes to farm.

Highway improvement is discussed by many members, and in this connection it is the intention of the Government to make a loan of \$1,000,000 per year to the provinces, over a period of five years. Of this yearly loan, \$80,000 goes to each province irrespective of size, and the remaining \$3,280,000 will be divided on the basis of population as established by the last regular census, which in the case of Manitoba, Alberta and Saskatchewan, will be that of 1916. Regarding the type of road for which this money will be used,

Honorable F. B. Carvell, Minister of Public Works, said, "The money will be spent on the roads on which it should be spent, not on byways by any means, but on highways—the great arteries of the country." Now, if the Dominion Government were making direct expenditures of this money for highway improvement, there is no doubt that the main highways should receive the benefit. But, aside from the question as to whether the Federal Government would be within its rights in entering upon highway construction, the money is to be expended by the provinces under agreement with the Federal Government. Good roads are a very valuable asset to the farmer, but it is only a matter of common sense to know that the benefit he will derive from a permanent highway is limited by his nearness to that highway and the condition of the road between it and his farm. The Western farmer, even less than the Eastern farmer, is likely to benefit from a system of main highways and is likely to find them loom up larger in his individual tax bill. Moreover, since most of the large expenditures planned by the Government have been designed to relieve unemployment, there is the question of the most profitable use of labor and natural resources during the reconstruction period.

Here, too, might be considered the Government's shipbuilding program, for which over \$50,000,000 will be required during this and the next fiscal year. Certainly other lines of expenditure might probably be pursued which would employ more labor for the same expense to the country and with less danger of the finished product deteriorating in value due to the cheapening of ocean tonnage in a short time. It can and has been argued, also, that ships can be built much more cheaply in England than in Canada. These ships are being built in Montreal, Toronto, Port Arthur, Fort William, Vancouver and Victoria.

The housing scheme, from an agricultural viewpoint is of no direct interest to the farmer unless the \$25,000,000 loaned to the provinces at five per cent. is used in part for the building of houses in rural districts. In Eastern Canada at least, those who have studied the question are agreed that a partial solution of the labor problem depends upon the employment of married men. The difficulty is to find houses for the men to live in, and it is certain that profits from farming in the average instance would not warrant the erection of more buildings, to relegate still more of the owner's capital to the "unproductive" class. We have gone far enough in the direction of encouraging people to live in urban centres; some steps should be taken to bring about a movement the other way. This is a national problem and should concern our Federal Government as a recognition of the basic nature of agriculture in our national prosperity.

A Department of Public Health is to be created, upon which project, we fancy, no material criticism can be brought to bear. Medical men in the house who should be our best authorities and of whom there are quite a number, seem to hail the measure as a needed improvement. The health of live stock is a matter for national direction, and why not that of the people? It is true that the provinces have public health officials, but there are, it seems, many considerations of national importance and, provided that Dominion and Provincial work does not overlap, the new department should be productive of good. There is some virtue in the suggestion made by one member in the House that the scope of the department be widened to include public welfare instead of only health.

Public sentiment will favor also the granting of voting privileges to women and provision for their admission to the House of Commons. What other provisions the new franchise act will contain, are not definitely set forth as yet. The repeal of The Wartime Election Act stands as a plank in the Farmers' Platform, and it is certain that any other enactment of a similar tendency would be resented by farmers, especially now that the war is ended.

Legislation favoring technical and vocational training is promised and this principle will be supported by the Opposition, according to the leader, D. D. McKenzie. Education of this kind has already been favorably discussed by farm organizations, notably the United Farm Women, but it will be some time before the matter comes up in the House.

Among the smaller bills which will be passed upon, if time permits, is one bringing the steamship companies, whose boats, to the number of 4,500 navigate our inland

remains \$110. Making a total \$264, or about 6 3/4 cents per box...

BULLETIN.

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waters and ply in our coastwise trade, under the jurisdiction of the Board of Railway Commissioners...

The Financial Program.

The financial program of the Government announced so far, calls then for the following expenditures: \$20,000,000 for highway improvement...

Last Week's Important Addresses.

Speeches in the House of Commons at Ottawa were much more spicy during the past week than during the week previous...

Undoubtedly the most interesting, the most thoughtful and the most carefully prepared address during the whole debate up to that time was delivered by Dr. Michael Clark...

Somewhat of a furor was created by H. C. Hocken, West Toronto, former Mayor of Toronto and editor of the Orange Sentinel-Review...

A. B. McCoig, Kent, spoke largely in the interests of agriculture, urging the removal of the tariff on agricultural implements...

J. W. Edwards, Frontenac, speaking from the Government benches, directed a volley of criticism at the Military Service Act...

Subscription Fakers at Work.

Organized gangs and individuals having absolutely no connection with this paper are scouring the country and taking subscriptions to The Farmer's Advocate and Home Magazine...

The Morden Shorthorn Sale at Oakville

As previously mentioned in these columns, the animals selling in George E. Morden's sale of Shorthorns, on Thursday last, were not in high condition...

Table listing animals and their prices: English Queen 2nd, W. C. McKay, Oakville \$200; Nonpareil 53rd, E. J. Lyons, Dundas 275; Nonpareil Fancy, J. Underhill, Claremont 170...

Shorthorn Sale at Caledonia

The Shorthorn breeders of Caledonia held their first annual consignment sale on March 6, when forty-one individuals went under the hammer at a fair figure...

FEMALES

Table listing female animals and their prices: Walnut Lady, G. Hannah, York \$165; Waterloo Lady, G. Hannah 200; Carluke Brilliant, D. W. Malloy, Paris 230...

Table listing animals and their prices: Carluke Dina, D. W. Malloy 210; Edith, S. Clark, Cayuga 190; White Lady, C. Young, Caledonia 160...

MALES

Table listing male animals and their prices: Proud Hero, J. Kyle, Drumbo 125; Joyful Star, J. Wilson, Middleport 170; Dominion Boy, I. Hersine, Leamington 150...

Shorthorns Make a Good Average at Guelph

The fifteenth annual auction sale of registered stock, to be held under the auspices of the Ontario Department of Agriculture and the Guelph Fat Stock Club...

Table listing animals and their prices: Diamond Star, B. Webb, Stratford \$167.50; Viewfield Diamond, W. J. Watson, Galt 175.00; Roan Diamond, P. Smith, Embro 180.00...

Toronto, Montreal, Buffalo, and Other Leading Markets

Week Ending March 6

Receipts and Market Tops

Dominion Department of Agriculture
Stock Branch, Markets Intelligence, Division

	CATTLE						CALVES					
	Receipts		Top Price Good Steers (1,000-1,200)				Receipts		Top Price Good Calves			
	Week Ending Mar. 6	Same Week 1918	Week Ending Feb. 27	Week Ending Mar. 6	Same Week 1918	Week Ending Feb. 27	Week Ending Mar. 6	Same Week 1918	Week Ending Feb. 27	Week Ending Mar. 6	Same Week 1918	Week Ending Feb. 27
Toronto (Union Stock Yards)	7,349	5,562	6,740	\$15.75	\$12.00	\$16.00	883	1,002	517	\$19.25	\$17.00	\$19.00
Montreal (Pt. St. Charles)	602	928	666		12.00	14.50	1,062	911	694	15.00	16.00	14.50
Montreal (East End)	616	516	1,045		12.00	14.50	440	762	367	15.00	16.00	14.50
Winnipeg	1,544	1,002	3,565	15.50	12.75	15.50	39	18	75	12.50	13.50	12.00
Calgary	1,492	1,067	2,725	14.92	11.75	15.00				10.00		
Edmonton	530	184	1,174	13.50	11.00	13.75	43	50	109	11.00	12.00	11.50

	HOGS						SHEEP					
	Receipts		Top Price Selects				Receipts		Top Price Good Lambs			
	Week Ending Mar. 6	Same Week 1918	Week Ending Feb. 27	Week Ending Mar. 6	Same Week 1918	Week Ending Feb. 27	Week Ending Mar. 6	Same Week 1918	Week Ending Feb. 27	Week Ending Mar. 6	Same Week 1918	Week Ending Feb. 27
Toronto (Union Stock Yards)	4,493	12,858	8,954	\$18.50	\$19.75	\$18.00	1,113	526	1,333	\$18.25	\$19.50	\$17.75
Montreal (Pt. St. Charles)	1,135	1,609	1,361	18.00	20.50	18.00	108	77	123	15.00	17.00	15.00
Montreal (East End)	688	928	744	18.00	20.50	18.00	107	110	233	15.00	17.00	15.00
Winnipeg	4,238	4,214	8,650	17.25	19.25	17.25	133		70			15.25
Calgary	1,710	1,932	2,997	17.15	18.25	17.00	61	498	804	13.50		13.50
Edmonton	585	609	1,023	16.75	18.00	16.40	194		2,749	*10.00		*10.00

Market Comments

Toronto (Union Stock Yards.)

There was a good and active demand for cattle at prices which were on the whole about steady, although advances of about 25 cents per hundred were made on some grades on the Monday market compared with values at the close of the previous week. Most of this gain was, however, lost in the mid-week trading, when demand was inclined to be slower and prices somewhat weaker. The American inquiry was curtailed to a certain extent by a strike in New York city, resulting in a cancelling of shipments to eastern United States points during the latter part of the week. This, however, did not prevent liberal shipments being made to the Buffalo market on speculation, and altogether over twenty-two hundred head were shipped across the line during the week. A few weighty cattle were on sale but no really choice heavy stock was offered and consequently prices did not reach the levels that were obtained on one or two occasions within the previous few weeks. A few lots of steers weighing from twelve hundred to thirteen hundred pounds per animal sold during the week at \$16 per hundred, and one lot at \$16.25. Of steers weighing from ten hundred to twelve hundred pounds each, a few head of eleven hundred and fifty pounds brought \$16, a straight load averaging eleven hundred and fifty pounds sold at \$15.75, a few loads were weighed up from \$15 to \$15.25, while numerous sales were made from \$14.50 to \$14.75. Medium quality in these weights sold from \$13 to \$14 per hundred. A few handyweight butcher steers averaging nine hundred and ninety pounds went at \$14.50 per hundred, while a straight load of twenty head realized \$14.25. Other good sales included three heifers averaging eight hundred and twenty pounds at \$14.25, sixteen head averaging nine hundred and forty pounds at \$13.75, twenty-five head averaging nine hundred and seventy pounds at \$13.60, and numerous other sale of good stock from \$12.75 to \$13.25 per hundred. Medium quality stuff realized from \$11 to \$12 per hundred. Cows and bulls were in good demand. A few choice young cows sold from \$12 to \$12.50, and one or two at \$13 per hundred. However, the majority of the good ones moved from \$10 to \$11 per hundred, and those of common and medium grading from \$7 to \$9. A few odd bulls sold up to \$12 per hundred, numerous sales were made from \$10 to \$11.25, while medium quality bulls ranged in price from \$8.50 to \$9.50 per hundred. Stockers and feeders sold at steady prices and a few shipments were made to country points during the week. Calves were in active inquiry at prices a shade better and as high as \$19.25 per hundred was paid for extra choice teal, while most of the sales were made from \$15 to \$17 per hundred. Lambs and sheep were in good demand at strong prices and one lot of forty-nine lambs sold at \$18.25 per hundred. These were fed on the farm of E. C. Dray, Garbe, Ontario. Other sales were made from \$16 to \$17.50 per hundred for medium to good quality stock. Sheep were sold up to \$19 per hundred. Notwithstanding a drop in receipts the hog market was still slower during

CLASSIFICATION	No.	TORONTO (Union Stock Yards)				MONTR. AL (Pt. St. Charles)			
		Avg Price	Price Range Bulk Sales	Top Price	No.	Avg Price	Price Range Bulk Sales	Top Price	
STEERS									
heavy finished	16	\$15.25	\$14.75-\$16.00	\$16.25					
STEERS good	393	15.02	14.25-15.50	15.75					
1,000-1,200 common	26	12.90	12.00-13.75	14.25					
STEERS good	1,835	13.65	13.00-14.00	14.25	52	\$12.00	\$11.00-\$12.50	\$12.50	
700-1,000 common	839	11.22	10.50-12.25	12.50	85	10.50	9.00-11.00	11.00	
HEIFERS good	858	13.05	12.50-13.75	14.00	16	11.00	10.00-12.50	12.50	
HEIFERS fair	520	11.16	10.50-11.50	11.50	20	9.25	8.50-10.00	10.00	
common	64	9.50	9.00-10.00	10.00	44	8.00	7.00-8.50	8.50	
COWS good	509	10.03	9.00-11.50	12.25	30	10.00	9.00-10.50	11.00	
common	1,051	7.87	7.00-8.50	8.75	81	8.00	7.00-8.50	9.00	
BULLS good	135	10.18	9.75-11.00	12.00	14	10.50	9.50-11.00	11.00	
common	109	8.31	7.75-8.50	10.00	98	8.25	6.75-9.00	9.00	
CANNERS & CUTTERS	279	6.07	5.75-6.50	6.50	134	5.50	5.00-6.25	6.25	
OXEN					4	10.50	9.00-11.50	11.50	
CALVES veal	868	15.23	14.00-17.00	19.25	1,042	13.00	12.00-14.00	15.00	
grass	15	7.00	6.00-8.00	8.00	20	6.00	6.00	6.00	
STOCKERS good	236	10.08	9.75-10.50	10.50					
450-800 fair	126	8.55	7.75-9.75	10.00					
FEEDERS good	238	11.55	11.00-12.00	12.00					
800-1,000 fair	115	10.64	10.00-11.00	11.00					
HOGS selects	4,083	18.10	17.50-18.50	18.50	951	18.00	18.00-	18.00	
(fed and heavies	8	17.93	17.50-18.00	18.00	14	16.75	16.00-17.00	17.00	
watered) lights	266	16.26	16.00-16.50	16.50	134	16.00	16.00-	16.00	
sows	130	15.15	15.00-16.00	16.00	27	15.00	15.00-	15.00	
stags	6	13.38	13.00-14.00	14.00	9	13.75	13.00-14.00	14.00	
LAMBS good	816	17.00	16.00-18.00	18.25	27	14.75	14.00-15.00	15.00	
common	190	14.00	13.00-15.00	15.00	36	13.75	13.00-14.50	14.50	
SHEEP heavy	43	9.95	9.00-10.50	10.50					
light	31	11.00	10.50-11.50	11.50	20	11.00	11.00-	11.00	
common	33	7.03	6.00-9.00	9.00	25	10.00	8.50-10.50	10.50	

the latter part of the week. On Monday fed-and-watered hogs sold at \$18.25 and \$18.50 per hundred. On Wednesday \$18 was the top price reported and some hogs were sold at \$17.50. The market closed on Thursday with sales being made from \$17.50 to \$18 per hundred.

Of the disposition from the Yards for the week ending February 27, Canadian packing houses purchased 290 calves, 3,782 butcher cattle, 10,184 hogs and 695 lambs. Local butchers purchased 343 calves, 441 butcher cattle, 413 hogs and 360 lambs. Canadian shipments were made up of 26 calves, 45 milch cows, 128 stockers and 95 feeders. Shipments to United States points consisted of 52 calves, 2,532 butcher cattle, 44 feeders and 143 lambs.

The total receipts from January 1 to February 27, inclusive, were: 55,033 cattle, 4,790 calves, 62,490 hogs and 21,988 sheep; compared with 37,269 cattle, 4,231 calves, 67,244 hogs and 8,443 sheep received during the corresponding period of 1918.

Montreal.

A brisk demand and a small supply of cattle were factors responsible for an increase in price estimated at 50 cents per hundred when compared with quotations of the previous week. The advance was particularly noticeable in the sales of steers. The quality of the offerings

was poor. Twenty-one steers averaging nine hundred and ten pounds sold at \$12.50 per hundred, and eight steers averaging slightly over ten hundred pounds were weighed up at a similar price. Steers of very medium quality and weighing around nine hundred pounds sold up to \$11, and a few very light steers weighing about four hundred and fifty pounds each realized \$8.50 per hundred. Heifers were in most cases weighed up with steers of equal weight and quality. Really fat cows were in good demand for the Jewish trade and will continue so during the Lenten season. The best of those offered sold at \$11 per hundred. To the Hebrew trade was also sold a number of heavy fat bulls for which from \$10.50 to \$11 per hundred was paid. In one instance an owner shipped a small number of bulls off the market rather than accept the price range mentioned. Young bulls weighing under twelve hundred pounds and in fair flesh, sold at \$9 to \$9.50. Canner bulls realized from \$6.75 to \$7.50, while canner cows sold at \$5. Veal calves were more plentiful and a number of sales of carlots were made at \$13, while the general run of sales was from \$13 to \$14 per hundred.

The few sheep and lambs offered were of a wide range of quality. Good sheep sold at \$11 per hundred and common stuff at \$8.50. Good lambs sold from \$14 to \$15.

Hogs remained at \$18.25 per hundred for selects fed and watered. Shipments were more plentiful during the middle of the week and sales were slower. Extra heavy hogs sell at \$2, sows at \$3, and lights at \$2 per hundred below the price of selects.

Pt. St. CHARLES.—Of the disposition from the Yards for the week ending February 27, Canadian packing houses and local butchers purchased 694 calves, 86 canners and cutters, 126 bulls, 406 butcher cattle, 1,361 hogs and 123 lambs. Canadian shipments were made up of 48 milch cows. There were no shipments to United States' points during the week.

The total receipts from January 1 to February 27, inclusive, were 6,856 cattle, 2,830 calves, 10,328 hogs and 4,720 sheep; compared with 5,265 cattle, 2,104 calves, 10,021 hogs and 4,867 sheep, received during the corresponding period of 1918.

EAST END.—Of the disposition from the Yards for the week ending February 27, Canadian packing houses and local butchers purchased 365 calves, 967 butcher cattle, 511 hogs and 77 lambs. Canadian shipments were made up of 233 hogs. Shipments to United States points consisted of 3 calves, 76 butcher cattle and 156 lambs.

Total receipts from January 1 to February 27, inclusive, were: 8,308

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Markets

Department of Agriculture
Markets Intelligence, Division

Top Price Good Calves

Week Ending	Same Week	Week Ending
Mar. 6	1918	Feb. 27
\$19.25	\$17.00	\$19.00
15.00	16.00	14.50
15.00	16.00	14.50
12.50	13.50	12.00
10.00		
11.00	12.00	11.50

Top Price Good Lambs

Week Ending	Same Week	Week Ending
Mar. 6	1918	Feb. 27
\$18.25	\$19.50	\$17.75
15.00	17.00	15.00
15.00	17.00	15.00
13.50		15.25
13.50		13.50
10.00		10.00

MONTR...AL

Price Range Bulk Sales Top Price

\$11.00	\$12.50	\$12.50
9.00	11.00	11.00
10.00	12.50	12.50
8.50	10.00	10.00
7.00	8.50	8.50
9.00	10.50	11.00
7.00	8.50	9.00
9.50	11.00	11.00
6.75	9.00	9.00
5.00	6.25	6.25
9.00	11.50	11.50
12.00	14.00	15.00
6.00		6.00
18.00		18.00
16.00	17.00	17.00
16.00		16.00
15.00		15.00
13.00	14.00	14.00
14.00	15.00	15.00
13.00	14.50	14.50
11.00		11.00
8.50	10.50	10.50

ed at \$18.25 per hundred and watered. Shipments plentiful during the middle and sales were slower. Extra well at \$2, sows at \$3, and per hundred below the price

ARLES.—Of the disposition for the week ending Canadian packing houses purchased 694 calves, 1,361 hogs and 123 lambs. There were no shipments es' points during the week. receipts from January 1 inclusive, were 6,856 calves, 10,328 hogs and compared with 5,265 cattle, 10,021 hogs and 4,867 during the corresponding

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Incorporated 1855

The Molsons Bank

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

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

Saving Department at every Branch.

Interest at Highest Current Rate.

cattle, 1,694 calves, 5,795 hogs and 5,173 sheep; compared with 6,357 cattle, 1,821 calves, 7,102 hogs and 4,523 sheep, received during the corresponding period of 1918.

Buffalo

Cattle.—Cattle market had a good start at Buffalo last week, opening strong to a dime to fifteen cents higher on shipping steers, with other grades ruling about steady but before the week closed, values showed a drop of from a quarter to half dollar, as compared with the week's opening. Canadian cattle were in larger supply than for the previous week and included some very desirable steers and heifers, steers ranging up to \$16 to \$16.25, with heifers running around \$13 \$13.35. Cheaper butchering stuff did not show much, if any decline but on a better kind of bulls values ruled lower, others unchanged, a good market being had both on milk cows and springers and stockers and feeders. Run for the week totaled 6,225 head, as against 4,175 for the previous week and as against 3,650 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, \$16 to \$16.25; fair to good, \$14 to \$15.50; medium weight, \$14.50 to \$15.50; common and plain, \$11.50 to \$13.

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 feeders, \$13 to \$13.75; good butchering heifers, \$12 to \$13.35; fair butchering heifers, \$10.50 to \$11; light common, \$8 to \$9; very fancy fat cows, \$11.50 to \$12; best heavy fat cows, \$10.50 to \$11; good butchering cows, \$9 to \$10; medium to fair, \$7.75 to \$8.50; cutters, \$6 to \$6.50; canners, \$5.25 to \$5.50.

Bulls—Best heavy, \$11 to \$12; good butchering, \$10 to \$10.25; sausage, \$8 to \$9; light bulls, \$7.50 to \$8.

Stockers and Feeders—Best feeders, \$10.50 to \$11; common to fair, \$8 to \$9.50; best stockers, \$8.75 to \$9.25; fair to good, \$8.25 to \$8.75; common, \$5 to \$7.

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

Hogs—Market last week, due mostly on account of short receipts at all marketing points, showed considerable improvement. Monday heavy hogs commanded top prices, these bringing up to \$18.40, yorkers and mixed grades landed mostly at \$18.25 and general price for pigs was \$16.50. Tuesday's top was \$18.60, bulk landed at \$18.40, with pigs selling up to \$17 and Wednesday good hogs brought \$18.90 and \$19, while lights and pigs reached \$18.15. Thursday's top was \$19.10 bulk sold at \$19, with pigs landing at \$18.50 and Friday the better weight grades landed at \$19.25, while pigs reached up to \$18.75. Good roughs reached up to \$16.50 and \$17 and stags ranged from \$13.50 down. Friday's market was the highest since the fore part of last October. The past week's receipts totaled 19,000 head, being against 23,761 head for the week before and 20,200 head for the same week a year ago.

Sheep and Lambs—Receipts last week

were moderate and prices were on the jump. Monday top lambs sold from \$19 to \$19.15 and by Friday prices ranged up to \$19.75. Wednesday wool lambs sold at \$19.60 and clips brought up to \$16.50. Cull lambs, with wool, reached \$18.50. Friday's market, barring a couple of days in June, when a few spring lambs sold at \$20, was the highest since April, when Buffalo made a world's record, selling wool lambs up to \$22.65. Sheep were strong all week. Yearlings brought up to \$17, top for wether sheep was \$15, and ewes went from \$14 down. Receipts for the past week were 18,900 head, as compared with 21,562 head for the week before and 16,300 head for the same week a year ago.

Calves—Last week started with top veals selling at \$21, Tuesday they reached \$21.50 and Wednesday's and Thursday's market was steady with Tuesday. Friday the market opened higher, tops selling up to \$22, however, the closing trade was from fifty cents to a dollar lower. General range on cull grades was from \$17.50 down. The week's receipts totaled 3,600 head, being against 3,699 head for the week previous and 3,300 head for the same week a year ago.

Toronto Produce

Receipts of live stock at the Union Stock Yards, West Toronto, On Monday, March 10, consisted of 208 cars, 4,021 cattle, 315 calves, 1,247 hogs, 301 sheep and lambs. It was a slow market. The quality of cattle generally was very poor. Best butcher steers and heifers remained steady; medium butchers were 25 to 50 cents lower; common butchers 25 cents lower; cows and bulls 25 cents lower. Sheep were steady; lambs, quality considered, 25 to 50 cents higher. Calves, strong. Hogs \$18.50 fed and watered.

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 wheat, (in store, Fort William, not including war tax)—No. 1 northern, \$2.24½; No. 2 northern, \$2.21½; No. 3 northern, \$2.17½; No. 4 wheat, \$2.11½.

Oats—Manitoba (in store, Fort William), No. 2 C. W., 71½¢; No. 3 C. W., 64½¢; extra No. 1 feed, 65½¢; No. 1 feed, 62½¢; No. 2 feed, 55½¢.

Oats—Ontario, (new crop), according to freights outside; No. 2 white, 58c. to 61c.; No. 3 white, 57c. to 60c.

Corn—American, (track, Toronto, prompt shipment), No. 3 yellow, \$1.55; No. 4 yellow, \$1.52.

Barley (according to freights outside)—malting, \$1c. to 86c.

Rye (according to freights outside)—No. 2, \$1.30, nominal.

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

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

Flour—Ontario (prompt shipment) Government Standard, \$9.55 to \$9.75; Montreal and Toronto, Manitoba, Government Standard, \$10.75 to \$11 (Toronto).

Hay and Millfeed.

Hay—No. 1, per ton, car lots, \$20 to \$21; mixed, per ton, \$18 to \$19.

Straw—Car lots, per ton, \$10.

Bran—Per ton, \$40.25; shorts, per ton, \$42.25; good feed flour, per bag, \$3.25 to \$3.50.

Country Produce.

Butter—Prices kept stationary on the wholesales, selling as follows: Creamery, fresh-made lb. squares, 56c. to 57c. per lb.; creamery cut solids, 52c. to 54c. per lb.; dairy, 45c. to 50c. per lb.

Oleomargarine kept stationary in price, selling at 33c. to 34c. per lb.

Eggs—New-laid eggs again declined selling at 44c. to 45c. per dozen, wholesale; selected, in cartons, bringing 47c. to 48c. per dozen.

Cheese—Kept stationary at last week's advance, selling as follows: wholesale, year-old Stiltons, per lb., 35c.; June cheese at 31c. per lb.; September at 28½¢. to 29½¢. per lb.

Honey—There is no demand for honey, even at reduced prices, 5, 10 and 60-lb. pails being quoted at 23c. to 25c. per lb.

Farmer's Account Book

This book is as complete as we can make it. There is a place in it for everything you plant, raise, buy, sell, have on hand; with a summary of the year's business.

It puts your farm on a business basis. It is free to Farmers.

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chickens, crate fed, 30c. per lb.; chickens, ordinary fed, 25c. per lb.; hens, under 4½ lbs., 25c. per lb.; hens, 4½ to 6 lbs., 30c. per lb.; hens, over 6 lbs., 32c. per lb.; roosters, 22c. per lb.; ducks, 35c. per lb.

25c. for No. 1; 24½¢. for No. 2 and 24c. for No. 3 cheese.

Grain—Car lots of No. 2 Canadian oats were quoted at 83½¢. per bushel, No. 3 being 77½¢., extra No. 1 feed, 78½¢.; No. 2 feed 70½¢; Ontario No. 2 white, 72½¢., and No. 3 white 70c. per bushel, ex-store. Cars of Ontario extra No. 3 barley were \$1.05 per bushel, No. 3 being \$1.04; No. 4, \$1.02 and Manitoba sample grades 98c.

Flour—The market was unchanged, with Government standard spring wheat flour at \$11 per barrel, in jute bags, ex-track, Montreal freight, for shipment to country points, and to city bakers. Ontario winter wheat flour was \$10.20 to \$10.30 per barrel, in new cotton bags. White corn flour was dull at \$8.50 and rye flour at \$8.50 to \$9, per barrel, in bags.

Millfeed—Car lots of bran were quoted at \$4.25 and shorts \$42.25, including bags, ex-track. Pure grain mouille was \$64; oat mouille, \$69 to \$62; pure barley feed \$52 to \$54. Mixed grain mouille \$47 and dairy feed \$42, delivered to the trade.

Hay—No 1 timothy was \$25 per ton, ex-track, in car lots; No. 1 light clover mixture, \$24; No. 2 timothy, \$24; No. 2 clover mixture \$23; and No. 3 timothy \$22, ex-track.

Hay Seed—Dealers quoted the following prices offered to farmers, country points: timothy 8 to 12c. per lb. red clover 37c. to 45c. alsike 22c. to 27c.

Hides—Veal skins were 50c. per lb.; grassers 22c.; beef hides lower at 16c. per lb. for cows; 14c. for bulls and 20c. for steers flat. Lamb skins \$2.75 each. Horse hides \$5 to \$6.50.

Chicago

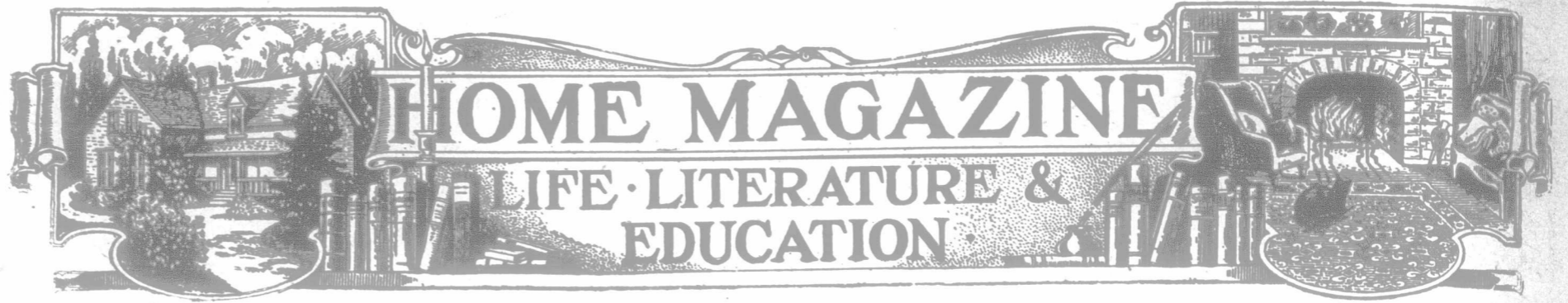
Hogs—Butchers', \$18.75 to \$18.95; light, \$18.25 to \$18.65; packing, \$17.75 to \$18.75; throwouts, \$17 to \$17.75; pigs, good to choice, \$16.25 to \$17.75.

Cattle—Cattle compared with a week ago, good and choice beef steers and butcher cattle steady; others unevenly, 25c. to 50c. lower; canners, 50c. lower; desirable feeders steady to strong; light stockers, 25c. lower; calves, 50c. to 75c. higher.

Sheep—Sheep compared with a week ago, market mostly 50 cents to 75 cents higher.

Butter—This market was stronger and choicest creamery sold in solid packages at 52c. to 53c. per lb. Fine quality was 51c. to 51½¢., while dairies ranged from 42c. to 44c.

Cheese—The Commission still quoted



Through the Eyes of a Canadian Woman in England.

February 5, 1919.

BRTAIN as thou wert, thou art,"—or at least making every effort to appear so, in spite of great labor unrest and strike upheavals throughout the length and breadth of the Empire.

One cannot help feeling that there is a great change in the atmosphere already; it can be noticed in the faces of the people on the streets. There is light chatter, and there are gayer clothes. People are like butterflies emerging from a chrysalis of four years' growth. In the shop windows there are lovely dancing frocks, all aglitter with sequines, instead of utility gowns and V. A. D. uniforms. There is a revival of dancing everywhere amounting to a craze, and one hears a great deal of the new American dance to the music of the Jazz band. Restaurants too are less subdued, and food more tempting and plentiful. I could hardly believe my eyes when they rested on some cakes decorated with rosettes of Mocha icing (almost worth their weight in gold!) Even here and there new shops are springing up like mushrooms—or rather re-opening now that proprietors and staff are coming into their own again. I noticed a number of new delicatessen shops, in the vicinity of Regent and Oxford Streets, run chiefly by French and Belgians, who excel in this line, into whose windows crowds of people eagerly gazed upon enticing dainties which their palates had become strangers to. Day by day we war-time visitors can see England returning to her former glory. But, of course, Canada will seem up-to-date beyond all dreams after the sojourn here. Dear old England has often made us impatient with her slow and sure methods, but we would not have her otherwise. It would not be England. Even her discomforts seem part of her charm. I once heard an English woman who had visited Canada (I must stop now and give my back a turn at the fire-place!) say that people in the "colonies" thought most of comfort and conveniences, while with English people beautiful scenery, old gardens and houses, and furniture which had a history took first place. I have since realized that she was not far from the truth. One can scarcely imagine herself landing in a country where there are shops and houses without rows of red fire-brick; evenly-heated rooms and pitchers of water in which the ice tinkles; confidential chats over telephones instead of telegrams; press-buttons in the place of door-knockers; and luxurious railway carriages. (How I should hate to start on a wedding trip, for instance, with a row of eyes opposite taking in my finery!) But in our heart of hearts we would not change it one iota over here. The character of the people, too, has impressed us. First they appeared cold, reserved, and stiff. But how we have had time and opportunity to look below the surface, and know that, instead of gushing words, they mean what they say, and kindness and hospitality are sincere. There will be pangs of loneliness and regret on leaving the Old Land, in spite of the fact that Canada teckons. England will never seem so far away again, and all cherish the hope that it is an revoir and not good-bye.

WE have experienced some worry and uncertainty these last few weeks in our little hostel world. The girls who had been so nobly doing their work, had received warning that it would be wise to return to their former occupations. I refer especially to the campers who built the portable huts in France. They had grown to love their work, and should a return to domestic duties which seems to be the

only vocation for girls of the working-classes in England. A few of the more domestic ones accepted the hint calmly enough and began to look about, but told me they disliked most the thought of giving up the hostel or institution life where they have been so happy together. The others, great husky girls, dreaded the indoor life and the long hours. A party of them invaded my sanctum one evening, looking very shy at first; but after a few awkward pauses one of them burst out with "Matron, couldn't you take us to Canada with you? Is there any chance for carpenters there?" I was full of sympathy but could not promise them anything. However, I told them I was confident they would be able to get work in Canada if they were willing to engage in anything that offered at first. I wished then that I could get the ear of a large contractor whom I knew in Canada, and ask his opinion. My recollection of the difficulties at home of getting a man to do any odd jobs about the house, led me to think that girls who could lay floors, make benches, put up shelves, mend furniture, etc., would not come amiss. The girl confided in me that she understood there were greater chances for getting married in Canada than here because "there always had been so many more women than men in England, and it would be worse than ever now." Evidently our Canadian boys have made a good impression on English girls. (I fear there will be many sad hearts left behind them!). After some days of unrest it was announced that the toy industry was under consideration, and the girls were asked to make something to show they had talent for the same. To-day I saw a wonderful little wooden vehicle, a miniature automobile, a teacaddy the shape of a house, and some wooden spoons, etc. The fore-woman had been sent to the big toy-shops in London to select samples of wooden toys and knick-knacks, and a work-shop is being got ready for the industry. Almost all the toys in the nurseries of English children came from the hated Germany in the past. The few home-manufactured ones shown in the shops this Christmas looked very crude, but by next year there will be toys to be proud of. The aeroplane girls are carrying on—at least till more men are released to claim their places. The machines that formerly were made for purposes of destruction will now be used for peacefully carrying passengers and merchandise. Even our precious Prime Minister is planning to take a trip to Paris in a very luxurious one in the near future. SIBYL.

What My Neighborhood Needs for Its Improvement.

BY "AN INVESTIGATOR." (A COMPETITION ESSAY.)

[For obvious reasons the name of the county referred to is not given. Many readers in different counties may, however, recognize similar conditions in their own localities, and will be glad to take advantage of a suggestion in "Investigator's" letter of which they may not previously have thought.—ED.]

A farmer would say, "a new soil." We in this neighborhood are famous for the lack of substance in the soil, as well as for the smallness of our pocketbook.

And because of the smallness of our pocketbook we cannot, we say, make much improvement in the soil.

Everybody knows that this is a poor district. So poor, in fact, that the Grand Trunk Railroad Company will not make a siding for us and so compels us to make a long journey where a short one would do. In this way she wastes our time, and time is money. And this money

must come from the afore-mentioned, thin pocketbooks.

We are unfortunate also in having a bad name. I don't mean that our character, being in the balance weighs heavy on the wrong side. Not by any means. But it is the name of the station or place I am referring to—such a funny sounding name—suggestive of "gobblers", or something like that, you know. A name that has a very depressing effect on the people of this village and surrounding country. A name such as this would be a great drawback to any community.

It would be difficult indeed to imagine that such a community would or could be led into making any progress. It would even be preposterous for them to think of such a thing. Is not this place in a poor district? And a poor district must always remain a poor district must it not? With the hope that after reading this article some will be convinced that there is room for considerable improvement and hope of advancement even in such a humble place as this, I'll proceed now to give my views on the subject.

I said that our soil is poor. Why not start, then, by fighting against the further exhaustion of it? The following is an extract from a letter addressed to my father, who is a city-bred man farming on fifty-four acres adjacent to the station of the place in question. The letter comes from Mr. R. Harcourt, Professor of Chemistry, Guelph.

"We have examined the samples of soil which you sent to us and results show that your soils are all in need of lime; although the quantities required are not so heavy as we have found in some other cases. One-half ton of fresh burned lime or one ton of carbonate of lime to the acre I think would make this soil act quite differently. On a soil as light as this I would advise the use of carbonate of lime. This material can be put on any time in the early spring; but always after ploughing. A soil of this kind is always open in nature and there is rapid oxidation of organic matter, so that one of the first requisites in keeping soil in good condition is to keep up the supply of organic matter by ploughing down green crops and then to keep the soil sweet by abundance of carbonate of lime. These are the two main factors to observe. Such soils are always inclined to be deficient in phosphorous; they usually contain abundance of potash but in the insoluble form. The decaying organic matter furnishes the acid necessary for the bringing of the mineral plant food constituents into the available forms.

"I think that on a light soil of this kind you will always find fruit, or vegetables will do better than grain crops. Potatoes ought to do well in this soil provided you feed it well enough.

"The main points that I would keep in mind are the use of lime in the carbonate form, the incorporation of all the organic matter possible and the use of bone meal, and further that this soil is better adapted to fruit and vegetable growing than to grain crops."

It would be a step ahead if a copy of this letter were sent to every person engaged in farming in our district. Our farmer must follow its principles if he would succeed. My father used the carbonate of lime on a few acres of his soil three years ago with very good result. But as there is no siding here, and the long hauling distance to the nearest station that has a siding means a great loss of time in the rush of spring work we have deferred the further use of it until we find it more practicable. I cannot help repeating that we need a siding for the advancement of this neighborhood and we can only get it by an intelligent effort to

make the G. T. R. realize the necessity of having one. It would enable us not only to receive the carbonate of lime which is so essential to our soil, in car-load lots but would make our station a convenient centre for the shipping of potatoes, roots and vegetables for which this soil is especially adapted. We have, besides, a sawmill here which manufactures cheese-boxes at the present time and is worthy of consideration by the railroad.

Our public schools must educate the boys to the value of the materials mentioned in the above letter and to their use. Before the people of this neighborhood are to make general use of carbonate of lime they will need demonstrations to prove that it is of undoubted value. We need to be educated to such things. Small plots for such and similar experiments would be of inestimable value in the education of the children. "Poor" as our district is, you will see from what I have said that three principles of national importance apply with equal force here as elsewhere in Canada:

1. Accurate knowledge instead of guesswork.

2. Facilities of transportation. (G. T. R. kindly take note.)

3. Education for advancement.

When these principles are well developed the farmer of our neighborhood will travel with sure step and firm, and his economic difficulties will vanish into thin air.

SO much depends on the soil where the soil's richness is conspicuous by its absence, that I have considered it at length. But aside from any disadvantages of that kind my neighborhood's advancement, speaking generally, will depend much on the energy with which we attack our every-day routine work; it will depend on the efficiency of each one of us as we follow our occupations whether in the house or in the field; it will depend on co-operation, the community spirit's presence, on high ideals in its young manhood and womanhood, on a pure social life and on a practical religion which must permeate our daily affairs. Anything, however apparently insignificant, that affects the advancement of the individual in my neighborhood will effect the neighborhood as a whole. Any progress that my neighbor makes is an addition to the value of my neighborhood. The individual advancement of one puts new life into all.

Because of all this, I would like to see the young farmers get together in that disused church-building of ours and discuss matters of common interest to them and consequently of value to the neighborhood. The exchange of views keeps the flame of interest aglow and a debate on Monday night in which the farm boy takes part will supply him with a stimulant to his mental and physical energy as he works during the rest of the week.

I fear that many of us are mentally lazy. We work hard enough—from early morning till late into the night in many cases. It would pay us to mix brains with our brawn.

The great need of the present hour we are told is "Efficiency" spelt with a capital E. The "Farmer's Advocate" has often made reference to this matter. Were I addressing the people of my neighborhood I would say to them that they must strive to increase their output; they must try to do things in the best, easiest and quickest ways. There is only one best way; only one easiest way, only one quickest way of doing anything. In our farm operations there is much room for improvement having this in view. In many cases it does not pay to have the best possible equipment but we can still work efficiently with what we have. A gasoline engine of the most efficient type with a fine double action pump of the best make are of no

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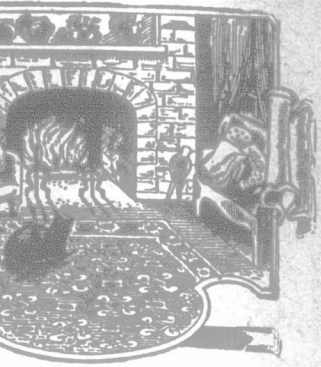
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use when the well has gone dry. Our capital, what little we have, must be invested in getting our soil into a ready-to-produce mood first. Then may we go in for the latest in farm machinery. There are many improvements in the details of our work that are possible without much expenditure of money. Few of us do things in the best, easiest, and quickest ways consistent with our economic resources. When I say all this, I do not mean to infer that I am very efficient myself but am trying to throw a little light on a matter which is very important to the advancement of our community.

WERE I to set down the ideals that I have formed regarding what my farm shall be twenty years hence, some of my neighbors on reading would smile. But ideals are essential to success. Let us have visions too of a community which will honor the Province of Ontario and bring credit to Canada.

Getting Ready for the Garden.

Order Seeds.

Order your garden seeds now, if you have not already done so. You may want to start a few in boxes in the house, or in a hotbed, for "early" vegetables.

Fertilizer for Garden.

Plenty of well-rotted barn-yard fertilizer is one secret of a good garden. If it was not put on the garden in the fall, the sooner it is put on now the better, especially if it is not well rotted. Manure that is almost resolved into earth is the only kind that can be safely worked into garden soil shortly before the seeds are put on. If new it will be too hot and will burn the young rootlets.

Vegetables for Health and Appetite.

Every farm garden should have some rows of each of the following: Beets, parsnips, carrots, salsify, onions, cabbage, cauliflower, cucumbers, lettuce, marrow, Hubbard squash, tomatoes, summer radish, winter radish, Swiss chard, celery and artichokes. The field crop may be depended upon for peas, corn and potatoes.

Annuals for Profuse Bloom.

When ordering the vegetable seeds order some seeds of annual flowers, also, to have plenty for cutting. The following will give you flowers in profusion, given the right kind of soil and just a little care. Sweet peas, nasturtiums, asters, morning glories, Shirley poppies, phlox drummondii, candytuft, coreopsis, petunias, mignonette, portulaca, scabiosa, zinnia, verbenas. Be sure to read directions on packages and follow them carefully. It is always best to order seeds directly from the seed-houses (see advertisements in various issues of this paper). They will send you a catalogue on application.

Planning the Garden.

Plan your whole garden now. Think around every side of the question, and draw plans on paper until you get the one that suits you. Don't have ten times too many carrots and not half enough tomatoes. Remember that by wise planting you can often get two crops of vegetables from one plot of ground. For instance, early peas may be followed by celery, cabbage, cauliflower, etc.; tomato plants may be set where early radishes have been; radishes may be sown with carrots or beets, lettuce plants may be pricked out and set alone, in odd spots, to develop to full size, as they never can do when crowded in the row. When planning the garden allowance may be made for all these tricks.

Fall-blooming Flowers.

When making out the seed list allow for a few flowers that bloom late in fall, such as cosmos, stocks, hardy chrysanthemums, marigolds, hardy asters, zinnias and verbenas. When severe frost threatens, in late October, any of these may be taken into the house, with plenty of soil adhering, and will keep on blooming. Among the very best fall-blooming flowers are the perennials, garden hydrangea and Japanese anemone; also the little annual verbenas, which often bloom until covered with snow.

Extra Good Varieties.

"Danish Ballhead" types of cabbage, although late, are among the best headers,

but one should have one of the "Savoys" and a red sort too. "Snowball" cauliflower is good. So are the "Golden self-blanching" celeries, Golden Bantam corn, "white spine" cucumber, and the "Hubbard" squashes.

Hope's Quiet Hour.

Gladness.

I have set the Lord always before me; because He is at my right hand, I shall not be moved. Therefore, my heart is glad.—Psalm XVI: 8, 9.

St. Paul told those who had received Christ to walk in him "with thanksgiving." There is a marvellous power in conscious fellowship with God to make people glad. A few days ago I was talking to a bright-faced woman who shrank away in pain when I touched her hand. She can't endure even the weight of the bed-clothes on her feet, yet her face is all sunshine. She is only twenty-five, yet she was unable to speak or lift herself up for six months, and now her voice is only a whisper—but her heart is glad, because she knows that the Lord is at her right hand.

Last week a friend in Boston sent me a poem she had written about one of God's saints, who has just escaped from the bondage of the flesh. For years she was helpless and suffering, yet her unflinching gladness made her room attractive even to the birds. They used to fly in and out of her window in the summer time, like messengers of God.

Though St. Paul was a prisoner, chained to a soldier, he did not lose his gladness of heart. "I think myself happy, king Agrippa," he said in all sincerity. The note of joy rang out in his epistles, no matter what his outward circumstances were. Even when all men forsook him he did not feel lonely, knowing certainly that the Lord he loved was standing invisibly beside him to strengthen him. He could not see Christ, any more than we can; yet his heart was glad because the Lord was always at his right hand. Nearly two thousand years have passed since then, yet the Master of St. Paul is still a very present help to all who can say, like the Psalmist: "I have set the Lord always before me. . . therefore, my heart is glad."

The Living JESUS is—
"No dead fact stranded on the shore
Of the oblivious years;—
But warm, sweet, tender, even yet
A present help is He;
And faith has still its Olivet,
And love its Galilee!"

The secret of gladness is to walk consciously in God's company and take the daily work, the daily trials and the daily pleasures of life straight from His hand. As a saintly writer has quaintly expressed it: "Our might is as brilliant as our day when God is in our hearts, and our day is night when God is absent from us." Faith has been a light in the darkness to men in all ages; and it is lighting the darkened lives of millions of people to-day.

We all want to be glad, of course—though we often shut out the sunshine and brood over our troubles until we can't see any of the pleasant things which still remain to us. But perhaps we forget that gladness is a duty and gloom is a sin against God.

The prophet Amos gave Israel God's message that they should offer a sacrifice of "thanksgiving." Why? Because God had tried so persistently to cure them of idolatry and bring them back to Himself. He had sent famine and drought, blasting and mildew, pestilence and war.

What strange reasons for thanksgiving! Yet it was a proof of His unchanging love for His disloyal and disobedient people. "You only have I known, of all the families of the earth: therefore, I will punish you for all your iniquities." If we walk humbly with God every day we can be glad always, because the rain comes from Him as well as the sunshine, and is equally a proof of His love. "He that refuseth correction despiseth his own soul; but he that hearkeneth to reproof getteth understanding." Should we be better pleased if our Father never interfered with us, never corrected us? His loving correction can only make us great if we accept

it trustfully. Jeremiah said sorrowfully of the people of Jerusalem: "Thou hast consumed them, but they have refused to receive correction; they have made their faces harder than a rock."

There can be no gladness in a rebellious heart, but one who has yielded his will to God can find joy even in sorrow, and discovers that it is possible—as the Apostle declared—to be "sorrowful, yet always rejoicing." How beautiful was the spirit of the Scotch minister, Rev. George Matheson, who accepted his blindness as a gift of Love, and wrote:

"O joy that seekest me through pain,
I cannot close my heart to Thee;
I trace the rainbow through the rain,
And feel the promise is not vain
That morn shall tearless be."

There is a story told of one of our soldiers—a patient in a "gas ward,"—who had been a leader in the choir before the war, and had cheered the boys in the transport and in camp by his singing. He came to a vesper service, and during the singing of the hymns his book was held up and his lips were moving—though the cruel gas had destroyed his voice. After the service was over the chaplain went to him and said tenderly: "Lad, I don't know what I would have done if you hadn't helped us out on the singing this evening." The look of sorrow in his eyes changed to triumph as he whispered: "I may not be able to lead the choir again, but I'll always have the singing in my soul, sir!"

I thought of that victorious gladness last Sunday, when I saw the shining face of that helpless sufferer (the woman mentioned above) while we sang hymns in the hospital ward. Her lips were moving, too; though she cannot speak above a whisper and could not hold the hymn book. Her face showed that she was singing in her soul, and the look of pain in her white face was conquered by the radiance of her smile.

"Though we are mute when others sing,
Let us be glad for singing."

Do you ever feel a little disappointed because your life seems commonplace and insignificant? You read of the "great" things which others are doing; but you find the days so crammed with "small" duties that you feel it is impossible to attempt anything beyond "the trivial round, the common task."

You can see the glory of victorious gladness singing in the souls of those who are triumphant over pain; but there doesn't seem to be anything glorious in your life. The command to "take up" the cross daily does not apply to you, for you haven't any troubles big enough to dignify with the great name of a "cross."

Yet you can be one of Christ's happy warriors, walking with Him every day and forgetting yourself in giving happiness to others. I think that gladness is one of the greatest gifts anyone can offer to his comrades. We know how the brave determination to "keep smiling" helped the soldiers in trench, hospital and prison-camps; and the cheerful faces of those maimed and blinded heroes still rebuke and inspire the world. Sydney Smith said: "I have gout, asthma, and seven other maladies, but am otherwise very well." It is possible for the man himself to be very well, even when the house he lives in (the body) is badly injured.

Every day we say: "Thine is the power, and the glory." Let us believe the truth of those words. Christ is the Great Victor, the Man who showed the glory of humanity when stripped of all earthly glory. He loves each one of us, and offers Himself—in all His power and glory—to be our Companion and Friend, our very Life. Others have lived victoriously because they drew constantly on His strength; and He is ready to supply our need, too.

You may think that your life is commonplace because your duties are common and ordinary. Was the daily life of the Carpenter of Nazareth commonplace, when He was hammering nails or sawing wood? He was bringing heaven down to earth when His hands were hardened like the hands of other laboring men; and now He has lifted earth to heaven and we can serve in the palace of our King while we wash His clothes or cultivate His fields.

"If I could have the table He
Once made in Nazareth,
Not all the pearls in all the sea,
Nor crowns of kings or kings to be
As long as men have breath,
Could buy that thing of wood He made,
The Lord of Lords who learned a trade."

But a far more glorious thing is offered us, even the daily companionship of the Man of Nazareth. He is at my right hand as I write, therefore, my heart is glad.

"I should not love Thee now wert Thou
not near,
Looking on me in love. Yea, Thou
dost meet
Those that remember Thee. Look on
me still,
Lord Jesus Christ, and let Thy look give
strength
To work for Thee with single heart
and eye."

DORA FARNCOMB.

Gifts for the Sick and Needy.

A "reader" in Quebec sent a dollar, and Mrs. M., Lucknow, Ont., also sent a dollar for the needy. Several readers sent parcels of papers—for the "shut-in"—which will be welcomed by my friends in the hospital.

DORA FARNCOMB,
6 West Ave., Toronto.

The Windrow.

It is interesting to note that the Big Four at the Peace Congress are: A Welsh lawyer who began life as a schoolmaster; an American college professor; a college professor from Italy; and a Frenchman who once taught school in Connecticut. (Clemenceau).

Lord Satyendra Sinha, appointed Under Secretary of State for India in Premier Lloyd George's Cabinet, is the first Hindu to hold such a position in the British Government. The appointment made him a member of the British House of Lords.

As an apparent result of the war Britain's universities are overcrowded with undergraduates, who are devoting themselves to the study of science and moderns, leaving the time-honored classics almost deserted.

The Mail and Empire's Tribute to Sir Wilfrid Laurier.

The following from *The Mail and Empire*, a political opponent, is one of the sincerest tributes yet published to the memory of a man who, as has been said, had "many political enemies but not a personal enemy."

"In Parliament the subject of Sir Wilfrid Laurier's death will not be exhausted by eulogies or resolutions of sympathy. The warmer these tributes to his memory are the stronger becomes the case for further action by Parliament. Sir Wilfrid Laurier, like Sir John Macdonald, was personally incorruptible. Whoever else made fortunes out of politics these two leaders, both of whom could have commanded wealth had they given themselves up to private business as they did to public affairs, died poor. There was never the smallest danger of a penny of public money going wrongly into their pockets. They made sacrifices while others made millions."

And again: "If there is any pure gold or true crystal in the character of a public man the people are sure to catch the flash of it, through they may not be able to explain why they yield to attraction. It was so largely in the case of Sir Wilfrid's influence. It would take the pen of a Pater to single out and turn the light upon the trait or sum of traits that was at once the Laurier mastery and mystery. We should not think of denying that Sir Wilfrid had noble aims or that there are achievements standing to his credit. But as much might be said of some men who never touched the imagination or the affections of great masses of the people as Laurier did. Had Sir Wilfrid taken to a non-political career that would have still brought him into communication with the people, he might have had equal success. Had he been a preacher, a novelist, an actor, or a savant, his "silver tongue," his "sunny ways," his

playful wit, his grace, his subtlety would surely have struck a popular chord. We cannot think of any other statesman who might wear the robes of high ecclesiastical office with more dignity and also with more benignity. He would have combined some of the stateliness of Catesby, the prelate of Disraeli's "Lothair," and much of the sweetness of the good Bishop in Victor Hugo's "Les Miserables." He might have had great fame on the stage.

—All this: And yet the man chose to devote himself to the career which, when unabused, can give greatest scope for service to the people of any country. Sir Wilfrid lived and died a comparatively poor man, financially, but he won the greater riches of the love of a great nation. In the end—which is the truest index of the life of a man—it became clear that he "held the hearts even of many whose votes he had lost."

The Fashions.

Fashion Notes.

Almost anything "goes," in fashion, this spring so long as the skirt is narrow and the sleeves tight. Skirts are, however, considerably longer than during the past year. Sleeves are long and may be either fitted in or "kimono," as suits the taste of the wearer.

For suits the favorite materials are serge, gabardine, and tricotine. For dresses, serge, crepe de chine, etc., will be in vogue until the time of muslins and cotton crepe arrives. Georgette crepe is as highly favored as ever, either for mingling with crepe de chine and other soft silks, or for separate waists. Wash satin is also used for waists; also crepe de chine and the Habutai silks. Collarless, round-necked dresses, worn with a necklace or string of beads are still in fashion, but with the coming of summer collars will be sure to come again into favor.

Among the colors in favor this season for suits and dresses are navy and Foch blue, dust and sand shades, light gray, rust, "mordore" brown, and black, with the brighter colors—henna, apple green jay blue, jade green, flag blue and rose for brighter uses.

Hats are of all shapes and sizes, and of all kinds of straw, although fabric hats, of silk, Georgette, etc., are in most favor for early spring. Much ribbon, with flat bows, is used for trimming; also flat flowers and very small flowers.

To be fashionable walking-shoes must have moderately low or sensible Cuban or military heels. High Louis heels are now reserved almost entirely for pumps and other evening shoes.

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.

2691—Girls' Dress.
 Cut in 3 sizes: 12, 14 and 16 years. Size 14 will require 4¾ yards of 36-inch material. Price 10 cents.



2683. A Youthful Dress.
 Cut in 4 sizes: 14, 16, 18 and 20 years. Size 16 will require 5½ yards of 36-inch material. Width of skirt at lower edge is about 1¾ yards. Price 10 cents.

2685. Boys' Suit.
 Cut in 4 sizes: 3, 4, 5, and 7 years. Size 4 will require 3 yards of 44-inch material. Price 10 cents.

2359. 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. The skirt measures about 2¾ yards at the foot. Price, 10 cents.

2692. Girls' Dress.
 Cut in 4 sizes: 6, 8, 10 and 12 years. Size 10 will require 5¼ yards of 27-inch material. Price 10 cents.

2688-2687. A Smart Costume.
 Waist 2688 cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Skirt 2687 cut in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. To make the costume of 36-inch material for a 38-inch size will require 6½ yards. Width of skirt at lower edge is about 1¾ yards. TWO separate patterns, 10 cents FOR EACH pattern.

2704. Girls' Coat and Cap.
 Cut in 5 sizes: 4, 6, 8, 10 and 12 years. Size 8 will require 2¾ yards of 44-inch material for the coat, and ¾ yards of 27-inch material for the cap. Price, 10 cents.

2684. Ladies' Combination.
 Cut in sizes: Small, 32-34; medium, 36-38; Large, 40-42, and Extra Large, 44-46 inches bust measure. Size Medium requires 2¾ yards of 36-inch material. Price 10 cents.

2791. Girls' Dress.
 Cut in 4 sizes: 6, 8, 10 and 12 years. Size 12 requires 3¾ yards of 36 inch material. Price, 10 cents.

2790. Dress for Misses' and Small Women.
 Cut in 3 sizes: 16, 18 and 20 years. Size 18 requires 5 yards of 44-inch material. Width of skirt at lower edge is about 1½ yards. Price 10 cents.

2776. Child's Dress.
 Cut in 4 sizes: 2, 4, 6 and 8 years. Size 6 requires 2¾ yards of 27-inch material. Price, 10 cents.

2770. A Simple Apron.
 Cut in 4 sizes: Small, 32-34; Medium, 36-38; Large, 40-42; and Extra Large, 44-46 inches bust measure. Size Medium requires 5 yards of 36-inch material. Price, 10 cents.

2771. Girls' Dress.
 Cut in 4 sizes: 6, 8, 10 and 12 years. Size 10 requires 3½ yards of 36-inch material for the dress, and 1¼ yards for the bolero. Price, 10 cents.

2781. Ladies' Dress.
 Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 will require 4¾ yards of 36-inch material for the dress, and 1¾ yards for the jumper. The skirt measures about 1¾ yards at the foot. Price, 10 cents.

2789. Child's Set of Short Clothes.
 Cut in 5 sizes: 6 mos., 1, 2, 3 and 4 years. Size 2 will require for Drawers, 1 yard, for petticoat 1¾ yards, for dress 2¼ yards, of 36 inch material. Price, 10 cents.

2474. Ladies' House Dress.
 Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 6¼ yards of 36-inch material. Price, 10 cents.

The Ingle Nook

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

A Letter From N. B.

We wonder if the following letter is a hint to some people.—We wonder. Is it, Joanna?

Dear Junia.—Ever since a few years ago I became the owner of a registered Ayrshire cow, I have longed to attend the Ayrshire Breeders' meeting and banquet. This year I went! I will not try to describe Woodstock, and do not remember the hotel. I was the only woman at the meeting, and felt rather shy. However the speakers soon attracted everyone's attention, and I was forgotten for the time being. At the close of the meeting, one of the committee "wished more members would bring lady friends, and extended a hearty welcome to the one present." I had the dreadful feeling of being too big, like Alice in Wonderland, and wished the floor would open and swallow me. It was all over at last and I returned to my hotel till banquet time. There had been a question as to what to wear, but I reasoned the men would be in black and white, so my dress was black, with white collar and cuffs, too. I was the only lady again, and given the post of honor. Oh, the menu! surely could any one get through all that? When I left the hall, it was raining and I had no umbrella, but there was a cab over on the other side the street, so I went to the old man who was asleep inside, and shook him by the shoulder. He started up with—"What's the matter? What's the matter?" and lo! and behold! I was in bed and it was my "old man" I had shaken out of his beauty sleep.

Yours truly,
 JOANNA M. HUDSON.

St. John, N. B.

Sir Douglas Haig.

For Mrs. J. K. K.
 Sir Douglas Haig, Commander-in-Chief of the British armies, was born June 19, 1861, the youngest son of John Haig, J. P. of Cameronbridge, Fife, Scotland, and Rachel, fourth daughter of Hugh Veitch of Stewartfield, Midlothian. He was educated at Clifton and Brasenose College, Oxford, and in 1885 joined the 7th Hussars, subsequently serving with the British army in the Soudan (1898), South Africa (1899), and in India, where he was Chief of Staff of the army forces from 1909—1912. His career as a soldier in Egypt, South Africa, and, later, in the Great War, was brilliant, while his stable qualities in connection with the army in peace times helped to win his selection as successor to Marshal French when the latter retired from his position as Commander-in-Chief of the British armies in Flanders and France.

Wedding Query.

For "Reader", Oxford Co., Ont.
 Would not advise you to have a buffet luncheon for a small wedding. Such a way of serving is only for convenience at a very large wedding. It means that the sandwiches, olives, almonds, cakes, etc., are on a decorated table. Piles of cups etc., are on the buffet (side-board). Someone pours tea and the waiters (may be the men guests) carry the tea and dainties to the ladies, who eat sitting or standing, wherever they may be. At a small wedding it is much prettier to have small tables or even one or two large ones, prettily decorated, and let everyone sit down. Serve whatever you like—cold fowl and meats, salad, olives, cake, ice-cream, in short anything you like that is dainty and tastes "good". There is no rule.

Re Side Combs.

For "Reader", Muskoka.—Really we do not know what will keep the teeth of side combs straight. If very crooked it might be better to get new combs.

Ladies' House Dress. 7 sizes: 34, 36, 38, 40, 42, 44 inches bust measure. Size 38 6 1/4 yards of 36-inch material. 0 cents.

Ingle Nook

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The book of verses underneath the bough I might provide you, but, I fear, just now The loaf of bread is quite beyond my purse I'm broke—but won't you like me anyhow?

"I sympathize with 'him' all the time, I'm afraid, and I certainly sympathized with 'her' all the time we had to use white-flour substitutes. I never could seem to manage them."

Mrs. Carey smiled. "I think we ought to use them for some time yet," she said. "There are so many millions of people in the world who are positively hungry every day, and will have to be so until the next harvests come in. One of my reasons for not wasting a scrap of food is that someone, somewhere, has to do without just exactly as much as we waste."

Miss Euston nodded approvingly, but Mrs. Verner looked up in surprise. "I can't see how you make that out," she said.

"It's really very simple," replied Mrs. Carey. "If I waste food, it means that I have to buy just so much to make up for it, and, when the supply is limited, someone else has to do without what I buy."

"Oh, I see," said Mrs. Verner, slowly. "I never thought of that before."

Mrs. Carey took up her Scrap Book again. "Well," she said, "here we come to meats first. Meat always seems such an expensive item. Here I have tabled nine ways in which I often make use of every scrap of left over beef and so on:

- 1. Shepherd's Pie. 2. Croquettes, or Rissoles. 3. Meat pie with pastry over it. 4. Hash with potatoes. 5. Curry with border of vegetables. 6. Meat salad. 7. Meat minced on toast. 8. Casserole beef. 9. Irish stew.

I'll read recipes for each of these, if you like."

"Whew!" laughed Miss Euston. "Talk about my being a genius in economy! Yes, do read the recipes, but wait until I get paper and pencil for Mrs. Verner and me."

There were soon provided, and then Mrs. Carey read the following:

Shepherd's Pie.—Use scraps of left-over cooked beef or raw trimmings or bits of the cheaper cuts—neck, brisket, flank, etc. Put the meat through the chopper, season nicely, mix with gravy, stock or hot water thickened with a little flour, adding just enough to make the meat very moist. Have some potatoes mashed light with a little milk and butter and seasoned nicely. Spread a thick layer over the top of the meat, smooth with a knife dipped in milk and bake a nice brown in a hot oven. Serve very hot. A little chopped onion may be added to the meat if liked.

Croquettes.—Take cold beef and chop fine to make 1 cupful. Add 2 cups fine bread crumbs and moisten with 3 table-spoons milk. Season nicely. Form into balls, dip in beaten egg, roll in fine cracker or dry rolled bread crumbs, and fry in hot beef drippings. For variety some chopped onion may be added to the croquettes, or canned tomato may be used instead of milk for moistening. The best croquettes are fried in "deep fat," that is deep enough to cover, and it should be smoking hot when the croquettes are put in; this will prevent the fat from soaking into the

croquettes. The same rule applies to doughnuts,—a "blue smoke" should be beginning to come off before they are put in. This is not an expensive way of cooking, as the fat may be used over and over.

Meat Pie With Pastry.—Cut any left-over meat (or fresh fried round steak may be used) in pieces an inch or two square and put in a baking dish with some potatoes, parboiled and cut in pieces. Season and add some gravy. You may add bits of chopped onion, also bits of any cooked carrots, turnips, or celery that may be on hand, or any mixture of them. Cover with crust made as follows: 1 cup flour sifted with 1/2 teaspoon salt and 1 heaping teaspoon baking-powder. Into this rub 1 small tablespoon lard or butter. Moisten with about 3/4 cup sweet milk, or until just soft enough to roll. Cut slits in top, put over and bake 20 minutes. If there is not enough gravy or stock to come to top of the meat add some hot water slightly thickened with flour.

Hash With Potatoes.—Run trimmings of raw meat through a chopper, mix with chopped cooked potatoes, season well and bake. Cooked meat may be used, with gravy to moisten, but is not so nice.

Meat Salad.—(1) Mix together 1 1/2 cups chopped cold veal, 1 head celery chopped, or 1 cup chopped cabbage. Pour over it a dressing made as follows: Into the yolks of 2 eggs beat 1 teaspoon salt and 1 of mustard. Stir in 2/3 cup vinegar and heat to near boiling, stirring all the time. When cold add 2 table-spoons thick sweet or sour cream. (2) Ham Salad: 1 cup chopped cold ham (lean part), 1 cup sliced cucumber pickles, 3 hard-boiled eggs. Arrange ham and cucumber in layers in a clear glass dish, saving the sliced eggs for top. Pour dressing over. The dressing used is made as follows: Heat together 1 cup vinegar and 1 tablespoon butter, and when boiling stir in a mixture made of 1 teaspoon flour, a dash red pepper, 1 tablespoon sugar, 1 teaspoon made mustard, yolk of 1 egg. Cook 3 minutes over boiling water.

Curried Meat.—Brown 1 sliced onion in 1 tablespoon butter. Add 1 cup canned tomatoes, 1 teaspoon curry powder, 2 teaspoons salt, pepper to taste, and 2 lbs. stewing veal, or cooked meats cut into bits. Pour over this 2 quarts boiling water, and let simmer 2 hours. Over the stew steam, in a steamer, 1 cup rice put in a dish with 1 pint water and 1 teaspoon salt. Before taking the stew off thicken with 1 large spoonful flour wet with a little water. Serve on a large hot platter with a border of the rice around. If preferred the border may be of boiled potatoes, carrots and turnips cut in large pieces.

Meat on Toast.—Put cooked meat through a chopper, season nicely and heat with a little gravy to moisten and a little chopped onion or catsup. Serve very hot on buttered toast. If preferred, mix the chopped meat with some hot milk sauce.

Casserole Beef.—Put any left-overs of meat, raw or cooked (or mixed) through the chopper. Season highly, bind together with beaten egg and gravy, press into an earthen dish or casserole, set in a pan of hot water and bake in the oven.

Some Pet Economies.

(Continued.)

"This is my economy book," said Mrs. Carey, smiling. "In it I paste everything that gives any hint about how to serve good nourishing meals at the least expense. I began it long before the War, and ever since the cost of living began to shoot upwards, I've found it the greatest help."

"Oh, that old high-cost of living question!" exclaimed Mrs. Verner. "There have been times when it became almost a nightmare to me. By the way have you ever heard that little skit by Mary Carolyn Davies? It's a parody on Omar Khayyam. Let me see if I can recite it. Oh, yes:—

SHE.

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Hash With Potatoes.—Run trimmings of raw meat through a chopper, mix with chopped cooked potatoes, season well and bake. Cooked meat may be used, with gravy to moisten, but is not so nice.

Meat Salad.—(1) Mix together 1 1/2 cups chopped cold veal, 1 head celery chopped, or 1 cup chopped cabbage. Pour over it a dressing made as follows: Into the yolks of 2 eggs beat 1 teaspoon salt and 1 of mustard. Stir in 2/3 cup vinegar and heat to near boiling, stirring all the time. When cold add 2 table-spoons thick sweet or sour cream. (2) Ham Salad: 1 cup chopped cold ham (lean part), 1 cup sliced cucumber pickles, 3 hard-boiled eggs. Arrange ham and cucumber in layers in a clear glass dish, saving the sliced eggs for top. Pour dressing over. The dressing used is made as follows: Heat together 1 cup vinegar and 1 tablespoon butter, and when boiling stir in a mixture made of 1 teaspoon flour, a dash red pepper, 1 tablespoon sugar, 1 teaspoon made mustard, yolk of 1 egg. Cook 3 minutes over boiling water.

Curried Meat.—Brown 1 sliced onion in 1 tablespoon butter. Add 1 cup canned tomatoes, 1 teaspoon curry powder, 2 teaspoons salt, pepper to taste, and 2 lbs. stewing veal, or cooked meats cut into bits. Pour over this 2 quarts boiling water, and let simmer 2 hours. Over the stew steam, in a steamer, 1 cup rice put in a dish with 1 pint water and 1 teaspoon salt. Before taking the stew off thicken with 1 large spoonful flour wet with a little water. Serve on a large hot platter with a border of the rice around. If preferred the border may be of boiled potatoes, carrots and turnips cut in large pieces.

Meat on Toast.—Put cooked meat through a chopper, season nicely and heat with a little gravy to moisten and a little chopped onion or catsup. Serve very hot on buttered toast. If preferred, mix the chopped meat with some hot milk sauce.

Casserole Beef.—Put any left-overs of meat, raw or cooked (or mixed) through the chopper. Season highly, bind together with beaten egg and gravy, press into an earthen dish or casserole, set in a pan of hot water and bake in the oven.

Irish Stew.—Take scraps from the neck or other cheap portions of beef or mutton, cut into rather small pieces and brown in a little dripping on the stove. Put alternate layers of the meat, sliced raw potatoes and sliced onions and seasonings in a pan, add a little water (a cupful or more), cover closely, and stew very gently for 2 hours. Serve very hot on a hot platter. If liked, sliced carrot and turnip may be added.

"Of course there are scores of other ways of using up meat," concluded Mrs. Carey. "I have many more here, but those I have given you are easy. Before I forget it,—I find that it is very advisable, when making up scraps and left overs, to use rather high seasoning, or to serve with a highly seasoned sauce. Beef Loaf, for instance, may be very dry and tasteless, but if you make it rather moist, put a little onion juice or Worcester sauce in, or serve the loaf surrounded by a hot tomato sauce, it may be very appetizing, both to the eye and the palate. Indeed I have a little cupboard set apart especially for seasonings and flavorings. They enable me to make many a delicious dish out of what, otherwise, would be fit to throw away, so far as 'tastiness' is concerned."

WRIGLEY'S

The Greatest Name in Goody-Land



YOU know the realm of childhood dreams is a land of sweets.

Make some of those dreams a delightful reality by taking home

WRIGLEY'S frequently,

SEALED TIGHT KEPT RIGHT

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Booklet, "Bumper Crops," mailed on request.

Gunns Limited - West Toronto, Ont.

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White Cap and Bailey per bushel, \$2.50 f.o.b. Bags free.

M. C. CASCADEN, Ruthven, Ont. (Essex Co.)

Eggs and Poultry Wanted We have a big demand for eggs. Also for good poultry, either alive or dressed. We prefer to receive heavy hens alive, and young cockerels either alive or dressed. It will pay you to sell to C. A. MANN & CO.

78 King Street London, Ontario

"What have you in the cupboard?" asked Miss Euston, practically.

"Ch, mixed savory herbs, sage, onion juice, Worcester sauce, tomato catsup, mushroom catsup, mint vinegar, paprika, white and black pepper, celery salt, nutmeg, cinnamon, cloves, lemon extract, almond extract, vanilla and several fruit peels, which I prepare myself."

(To be continued.)

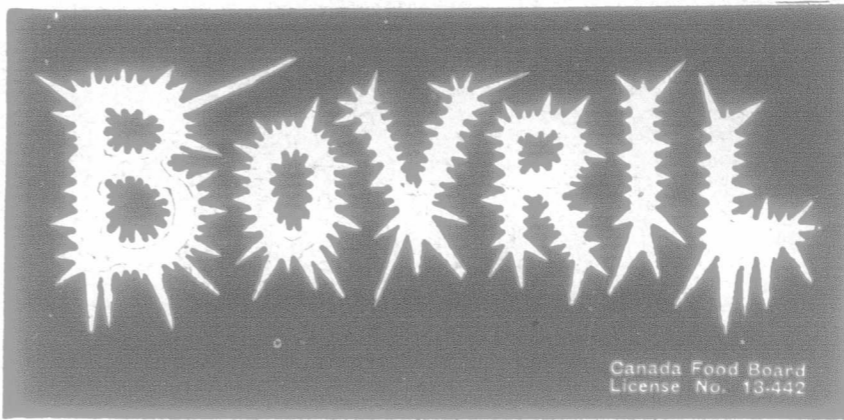
House Plants' Worst Enemies.

APHIDS or plant-lice, red spiders and mealy bugs are the three worst enemies of plants growing indoors. All suck the sap and weaken, or kill the plant.

To kill the aphids spray forcibly with soap-suds once a day for several days in succession. Use any pure soap, half a bar to about 5 gallons soft water. Several hours after the soap-suds have been used spray with clear water to remove the dead lice and the soapy look. Tobacco water is also good. Prepared tobacco may be bought from any seedsman, and the directions should be exactly followed. If you have not a small spray pump, invert the plant in a large dish or tub of the soapy water or tobacco water, holding the soil back with the hand and moving the plant about until the leaves and stems are thoroughly washed.

If preferred the plants may be dusted with pyrethrum powder or tobacco powder.

The mealy bug infests especially the coleus and fuchsia, and may be readily known, because it looks like a tiny tuft of white cotton batting. To destroy it apply a drop of alcohol, kerosene, or



Important Clearing Sale 20 Scotch-Topped Shorthorns

Selling without reserve, at MOTHERWELL, half way between Mitchell and St. Mary's, on

Tuesday, March 18th, 1919

Cows with calves at foot, cows due at time of sale, heifers, bulls of breeding age. Also stock bull, Vain Marquis, grandson of the great Gainford Marquis, Imp. Also 12 grade Durham steers and heifers rising 2 years old, 11 Leicester ewes.

TERMS: Cash, or 8 months' credit will be given on furnishing approved joint notes, with 5% added.

WM. J. ROGER, Prop., R. No. 1, MUNRO, ONTARIO
WM. E. NAIRN, Auctioneer.

Wholesome Economical

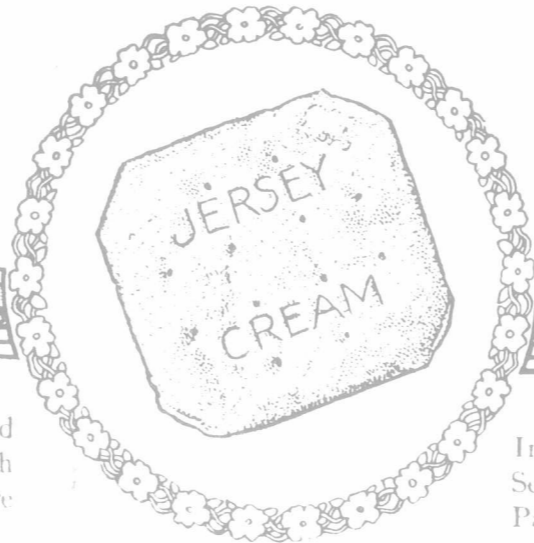
MORE nourishing even than bread—
McCormick's Jersey Cream Sodas are
an economical food worthy of your patronage.

Baked to an alluring crispness in our new, snow-white palace, they have a flavor that will make you appreciate McCormick Quality.

McCormick's Jersey Cream Sodas

Factory at LONDON, Canada. Branches at Montreal, Ottawa, Hamilton, Kingston, Winnipeg, Calgary, Port Arthur, St. John, N. B.

Canada Food Board Licenses 11-003, 14-166.



Sold
Fresh
Everywhere

In
Sealed
Packages.

fir-tree oil with a wooden tooth-pick to each insect.

Red spiders look like tiny specks of rust, and their attacks cause the leaves of plants to become yellow and, finally, to drop off. Forcible spraying with clear water, especially on the under sides of the leaves, will eradicate them.

"Scale," which sometimes appears on the leaves and stems of ferns, rubber plants and palms, may be driven away by carefully washing the stems and leaves with a small rag, scraping off each scale as one comes to it.

All of these treatments should be given as often as necessary. A vigilant watch should always be kept upon house-plants in winter to ensure that no pest can get too much start before treatment is given.

Dried Fish Made Delicious.

SMOKED and dried fish are really delicious—if properly cooked, and will be especially relished for breakfast or supper.

Dried red herrings, bloaters and ciscoes need only to be well cleaned, then scalded, then baked a little in a very hot oven and served piping hot. Or some of the meat may be diced, covered with thick white or tomato sauce and served very hot with hot baked potatoes.

Finnan haddie, smoked salmon and halibut should always be put on in cold water, which is brought to boiling point and drained off before the fish is used. Afterwards the fish should be boiled in fresh water and finally drained and served with white sauce over which hard-boiled egg, chopped fine, may be sprinkled, or chopped parsley. Finnan haddie may also be broiled and eaten, when frizzling hot, with curried rice or baked potatoes.

Salt codfish and mackerel must be soaked over night, but no longer. Drain, boil in fresh water, drain again, and serve with plain white sauce or egg-sauce. If the fish has been shredded serve on toast or over hot split biscuits.

For variety codfish may be prepared as follows: Boil the soaked fish a few minutes in fresh water. Meanwhile fry some diced salt pork until crisp. Take out the pork and put in the fish, drained and chopped. Cook for a moment or two in the fat, then stir in a little flour, stirring all the time. Add gradually 1 cup milk, season with paprika, stir in the pork and stir until thick and creamy. Serve on toast, sprinkling the top with finely chopped parsley if you have it.

Salt mackerel is nice baked in milk for breakfast. Previously it should, of course, be soaked and drained. Or it may be boiled, drained and served with highly spiced vinegar.

The Fine Art of Coffee-Making.

THE three requisites for good coffee are freshly boiled water, freshly ground coffee, and a perfectly clean coffee-pot. Coffee in a can will do on a pinch, but the real connoisseur in coffee-making prefers to own a little coffee-mill, buy the coffee beans and grind them when needed.

Of course it is nice to have a percolator, but if one hasn't there is no need for despair; a good granite coffee-pot will make the tempting beverage just as well.

Here are two methods. Try both and then keep the one that gives the result you like best.

1. Tie the required amount of coffee loosely in a bit of cheesecloth. Put it in the pot and pour over it water that has just begun to boil hard, being sure that there is exactly the amount of water required. Cork the spout and draw the pot to the back of the stove where it will keep very hot, but not boil. Leave for 10 minutes then serve with rich cream and sugar.

2. Tie the coffee in the cheesecloth and put into the pot with just the right quantity of cold water. Let come to a boil and boil hard for 5 minutes, then serve with rich cream and sugar. In either case, an egg, or egg-shells, may be added to assist in clarifying.

Many good coffee-makers put just a pinch of salt in the coffee-pot. The French, when roasting the beans, add a bit of butter the size of a nut and a dessertspoonful of powdered sugar to every 3 lbs. coffee beans. The beans are then roasted as usual in a moderate

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oven or in the frying pan, where they
 must be shaken and stirred to prevent
 burning.

The Scrap Bag.

Baby's Bottle.

Keep the baby's bottle very clean,
 washing it and scalding thoroughly after
 each using. If a cord, first sterilized in
 boiling water, is placed across the center
 of the opening before the nipple is put on
 the nipple will not collapse. The rubber
 nipple holds it in place.

To Remove Odors from Dishes.
 To dispel the unpleasant odor and
 taste from kettles in which onions or
 fish have been cooked, first wash the
 kettle well then put in a little sugar and
 heat it.

Cleaning Lamp Chimneys.
 Rub off any smokiness with paper,
 then wash the chimney in warm soapy
 water, dry with a clean cloth, and finally
 polish with newspaper until it glitters.

That Old Reed Rocker.
 You know how soiled and shabby it
 looks. Why not treat it to a nice coat
 of paint? Perhaps you want it an ivory
 to go with that bird's eye maple dresser,
 or apple green to make a bright spot in
 your bedroom, or black so you can use
 some lovely vivid cretonne on the seat
 cushion.

First, clean it thoroughly with warm
 water and soap and let it dry over a
 day. Get just ordinary house paint
 and thin with turpentine until the paint
 can be well worked in between the reed.
 Paint back and front, top and bottom,
 till it is all covered. Don't let the paint
 gather in drops, work it all in smoothly.
 Two coats may be enough, you might
 need three.

Broken places in the chair can be
 mended before painting if you have
 on hand some pieces of basketry reed,
 or willow, if the chair is of that ma-
 terial. Perhaps it will need some glue
 in the joints also.

And when it is all done, I know you
 will agree with me, that it is worth the
 effort. Try it and see.—Nellie M.
 Killgore, Colorado Agricultural College,
 Fort Collins, Colorado.

Our Serial Story.

The Forging of the Pikes. A Romance Based on the Rebellion of 1837.

Serial rights secured by The Farmer's Advocate
and Home Magazine.

CHAPTER XIV.—Continued.

In his little shop on the highroad Jock
 is in the very stream of folk going to and
 fro, and hears much that never comes
 to us out in the fields, and so he usually
 has many things of interest to tell if he
 chooses to tell them. This afternoon
 as was to be expected from these times,
 he fell naturally into the talk that makes
 up so much of our conversation, often
 stormily when Reformer and Tory meet,
 and he had something to tell me of the
 gatherings which Mackenzie and his
 followers are now holding in various
 places, ever more boldly, very little
 attempt being now made to conceal
 their occasion or their purport. Some-
 times, even, he said, defiant mottoes are
 posted on the walls of the halls where
 the meetings are held, and always resolu-
 tions are passed in the most daring
 way, but with very little interference,
 the Tories chosing, for the most part,
 to treat such demonstrations with con-
 tempt and ridicule. Invariably, of
 course, the Radicals are in attendance,
 but the more moderate Reformers either
 take no active part or stay away al-
 together. Nevertheless there is much
 bitterness astir in the country, and even
 the moderate Reformers have to face
 misunderstanding and obloquy because
 of these things. With their attitude
 Jock is not in sympathy. They are
 neither one thing nor another, he says,
 and that is not according to his philosophy
 of life. "It's ayve them 'at gangs a' the way
 'at gets there," he says.—A good friend,
 or a bitter enemy, is Jock.

And then as we talked, while the sun
 sank in the West and the shadows
 lengthened across the road, there sounded
 the galloping of a horse's hoofs, drawing



"The Best Investment I Ever Made"

When a farmer recommends our fence
 to his neighbor, it means much more
 than anything we can say about it.

We therefore ask you, before you buy another
 roll of fencing, to inquire what other farmers
 have found out about

INVINCIBLE FENCING

If it happens that no farmer in your neigh-
 hood has had Invincible Fencing on his farm a suffi-
 cient length of time to be regarded as a real test,
 write us and we will tell you of farms on which it
 has stood the test of many years' real service.

The experience of one farmer with regard to In-
 vincible Fencing will be exactly like that of every
 farmer who has tried it—because every bit of fence
 that leaves our factory is tested so rigidly that we
 are able to assure you it will all measure up to the
 same high standard. Unlike most wire fence manu-
 facturers, we are able to guarantee, not only the
 weaving of our fence, but also the quality of the
 steel from which the wire is made—for Invincible
 Fencing is made entirely by ourselves, from ore to
 finished product.

We fully guarantee the material in Invincible
 Fencing to be of the best, heavily galvanized open-
 hearth steel. Then, on top of that, we guarantee
 its workmanship—equal strands, straight stays, soli-
 d and secure locks—these are the features of Invin-
 cible Fencing that ensure its holding under the most
 severe strains.

When to these features of Quality, you add the
 important fact that Invincible Fencing is made in
 Canada by Canadian workmen, you must see that
 it is to your interest to insist on this Brand, in the
 purchase of which you keep your money in circula-
 tion in your own country. Our advice is backed up
 by the advice of the better dealers—for in almost
 every locality it is the leading merchant who sells our
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It is the modern way to farm—the way to develop
 the new farm or improve the old. C. X. L.
 Stumping Powder is your means of speeding up
 labor and of increasing acreage or crops.

C. X. L. will clear away stumps and boulders,
 drain or irrigate your land, and is an invaluable
 aid to the fruit grower. C. X. L. Stumping
 Powder will do the work of a man, two horses
 and a stump puller in removing stumps, and do it
 twice as fast at less cost. It will ditch bog land
 in half the time it can be done any other way.

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 tree planting—insuring earlier maturing, healthier trees than
 those that are spade-planted.
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 you are farming for profit. Send for your free copy today.

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 Write for proposition.

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rapidly nearer, and in a moment, from
 behind the big beech tree at the edge of
 the yard, came full tilt none other than
 The Schoolmaster.

His face lighted up when he saw us,
 and swerving his horse in, he drew rein
 and flung himself off, then fastened the
 horse to the hitching post and sat down
 on a bench before us.

He was very warm from long and hard
 riding, and the long black hanks of hair
 lay wet on his forehead, but he did not
 show any consciousness of bodily dis-
 comfort other than to remove his hat
 and throw it on the grass. He is always
 oblivious of himself when at all excited,
 and, indeed, this time it did not require
 more than a second glance to see that he
 was under some unusual mental strain or
 exaltation.

"I've just come from Toronto," he
 said, almost immediately, and then,
 he went on to tell us, in few words, of
 things he had heard there and in the
 vicinity. "Lount, Gibson and Nelson
 Gorham," he said, "are all helping Mac-
 kenzie, and speaking at the meetings,
 their words carrying great weight, for
 they are all known as fine men and are
 proving themselves orators besides. In
 the west, too, the people are aroused,
 and are under the direction of one Doctor
 Duncombe. So that Mackenzie's plan
 of dividing the province into four parts,
 for organization, is so far working splendidly.
 . . . With the Lower Province, too, it
 appears, there is to be some co-operation
 and Jesse Lloyd, of Lloydtown, has been
 appointed as emissary between Mac-
 kenzie and Papineau, going to and fro
 between the Provinces, carrying letters
 and messages that can be entrusted only
 by word of mouth. This, however,
 came to the Schoolmaster by devious
 ways, and is not publicly known, so that
 it behooves me to be very silent on the
 matter. As for Jock, with all his talking

Wheat Yield was Increased Four Times

"I threshed the whole field (10 acres) and measured from the machine 547 bushels, a pretty good yield and a good sample."—Writes A. L. Hodgins, Ettrick, Ont.

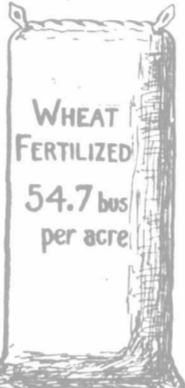
Unfertilized wheat from a measured test plot yielded only 12.5 bushels per acre, a gain of 42.2 bushels per acre for fertilizers.

"Results of fertilizing are 4-to-1 in favor of fertilizers." So says Mr. Jas. Peters, Mt. Brydges, Ont.

Which Yield do you want this year?



Mr. A. L. Hodgins chose the Fertilized Yield.



GOOD tillage, good seed and abundant use of high grade fertilizers make crop yields highly profitable, and grass "catches" sure.

Fertilizers Hasten the Ripening of Crops

Farmers say:

"We were husking two weeks before any of our neighbors could husk, who did not fertilize. Our corn matured well and we are selling for seed."—E. F. KELLY, Watseka, Ill., 1918.

"In regard to barley, the sample from fertilized was very much heavier than the unfertilized, and we cut it 7 days sooner. It went at least 15 bus. more per acre."—I. WYLIE, Caledonia, Ont., 1919.

Fertilizers improve the quality of the crop too. Analyzing and comparing fertilized and unfertilized wheat, Ohio Experiment Station found that the unfertilized grain analyzed 49% plump and 51% shrivelled, while grain from the fertilized plot analyzed 94% plump and 6% shrivelled. Minnesota Experiment Station reports that fertilized oats had a higher per cent of protein than unfertilized oats.

Feed your young crop readily digestible plant food and so benefit by bigger yields of better quality.

It Pays to Fertilize

Write for Free Bulletins on Crop Production

The Soil and Crop Improvement Bureau

of the Canadian Fertilizer Association

1111 Temple Building Toronto 28

USE THE BEST.
Stone Brands Never Fail
 To Increase Your Crops.

WM STONE SONS LIMITED WOODSTOCK ONT.

he could be burned to ashes at his own forge before he would divulge anything entrusted to him. Besides he is a Radical and fever-hot for the cause."

"Ye'll be sayin' noo that they'll be for fechtin'?" he "speired", when The Schoolmaster paused in his recital.

"I'm not prepared to say that," replied The Schoolmaster. "But we must be ready. If all else fails, even to fight, regrettable though that may be, may be necessary."

"Noo, ye're sayin' it!" exclaimed Jock, enthusiastically.

"—And in order that our men may be ready in case of such an emergency," continued The Schoolmaster, "they must be trained.—And you," turning directly to Red Jock, "can help more than most of us."

"Me, sir?"

"Yes, you. You are in a position to do so."

Jock continued to stare for a moment,

then, with what may have been intended for a bow of acquiescence.

"Ah'll be fair complimented, sir," he said, adding "gin ye'll tell me ma bit job."

The Schoolmaster gave his hand a wave of dismissal of the subject.

"I'll drop in to see you on a week day," he replied. "There's *much* that you can do, Jock. As for the rest of us, we've been all over slow, I fear. Already they're beginnin' to drill—"

"To drill!" we both exclaimed.

"—Yes, to drill, in many places, and, for the sake of the rifle practice, pigeon and turkey matches are becoming very popular. Don't say no if you are invited to one in the Village or down at the Corners before long.—As for the drilling, I've been thinking that Jimmie Scott's is just the place.—A bit of irony that, isn't it?—that. The Block should be the very rampart for a movement against the very condition that made it possible! Ha! Ha! . . . In short, I've been thinking it all out on the way, and have decided that we may assemble there next Tuesday night. What do you say?"

To that neither Jock nor I made objection, and then The Schoolmaster turned to me.

"Do you think your father would undertake to drill the men?" he asked. "He is an old soldier."

"I am quite sure he would object," replied I. "He's not in sympathy, you know."

The Schoolmaster nodded. "I know," he said, drawing down his brows. "I'm sorry. He would do much better than I. But I'll do the best I can. I had some practice, you know in the Old Country. I was a sergeant in the yeomanry.—Well, I must be going."

Red Jock hastened to untie his horse. "Ye'll be fer askin' the rest the noo, Ah doot?" he queried.

"Not to-day, Jock," said The Schoolmaster. "I've a sort of feeling about the Day of Rest.—But to-morrow."

Jock nodded with satisfaction. "Ah'm no what ye may dub reelegious," he said, "but Ah've a sort o' suspicion about the Sabbath.—Weel, ye may depend on's, sir. An' Ah'll be luikin' tae see ye sune, sir, tae tell me about ma bit job.—Amang us a' we'll doon the autocracy (he called it "ottocrasy") yet, Ah doot."

"That we will, Jock," laughed The Schoolmaster, and, touching his hat with his whip, he rode away.

"A fine man that!" exclaimed Jock, looking after him admiringly. "Aye the manners o' a gentleman, and yet wi' a hert that feels fer tae buddies wha hae na a manner at a'. Did ye see the touch o' the hat, Alan?—juist as if we wis fine buddies!—An' him juist comin' frae hobnobbin' wi' the fine fowk i' the toon!—Weel he'll no lose ony-thing by 't, an' ah doot if it comes tae him leadin' up a company o' men they'll gang aifter him gin he chooses tae tak' them tae the middle o' Lake Ontario. . . . Noo, Alan, come awa' hen the hoose an' we'll hae a bite supper."

So we walked in slowly from the road and I sat on the doorstep of the little room behind the shop and watched him while he fried bacon and eggs in royal quantity, and produced jam from the cupboard, and bread which he cut into chunks big enough for Finn McCool.

"Ah cudna expec' Eleezabeth tae fit in tae sic a rough bit hoose as this," he said. "She's aye a dainty bit. But mayhap when the—the Demonstration's by, things 'll be mair fit i' the wiiderness." "—Ah'm no meenin' that wad mak a deference wi' Eleezabeth," he added, "but Ah've a feelin' that a mon shoudna expec' a wumman tae step into over much tae bear.—Ah'm no sae sure, ye understand, that she'll hae me at ony rate, but aye Ah keep mysel' up wi' thinkin' that mayhap when the greetin's by fer him that gaed awa' an' whan the bairnies is growed an' feenished wi' the schule an' got places mebbe, an' whan, mebbe, there's mair siller an' a better hoose than this bit shanty, Ah'll speak wi' her again, an' mayhap she'll be no sae fain tae turn awa'. It's a fule dream, Alan, Ah doot. But it keeps me forgin' aye a bit o' soul's glowin' as weel 's the bit horse shoes an' pleuch-points an' wagon tires."

When Jock had ended I went to him and held out my hand. He caught it in his big brawny one, and we looked into each other's eyes.

CHAPTER XV.

A Disappearance.

October 8th, 1887.

IT is now three weeks since I last wrote in my journal, and I do not know why I do so now save that I am sick at heart and, perchance, seek to find some respite in doing the thing that I have done before. And yet I fear that the impulse is such as makes us sometimes press on a part that pains even though the pain be worse therefore.

At my last writing I spoke of not finding Barry at the tavern that Sunday afternoon.—So long ago, it seems! Can it be possible that it was only three weeks ago this day?

She has not been seen since, nor has anyone heard of her.

When she did not come back that night Nick Deveril thought nothing of it, holding that she might have stayed with some of the neighbors, although that is something that she has never done since coming to these parts.

When she did not return on Monday nor yet on Monday night, he reached a point of being somewhat moved and sent out an alarm, going over to the Jones's himself to discuss what might be done.

Then it was that our settlement arose as one man, as it always does when dire trouble falls upon one of us.

Straightway Dick Jones set off on a gallop one way, and Mistress Jones another, riding as fast as he, for there is no better horsewoman in this country. From farm to farm the word was called out, and Tom Johnson and I joined in the work of calling it, Tom mounted on his fleet-footed Jess, while I put Billy to his speed. But so far did my anxiety run ahead of my poor beast that it seemed to me that he was going at snail's pace, and I fear I put the spurs to him cruelly.

"Barry Deveril has disappeared!" was the burden of our cry, "Go to the tavern!"

And straightway in the harvest fields men threw down their sickles and made away as fast as they could, while the women stood at the doors anxious and distraught.

There was no need to ask what was to be done, for this thing had happened once before in our neighborhood—though 'twas a little child then that was not to be found—and happens in every settlement, sooner or later in this bush country. And always countenances are grave and hearts are sore for there are many dangers abroad in the wilds—of morass and cliff, of wild animals, and of being lost and starved to the death in the trackless forest.

At the tavern, before ten of the clock, every man in the settlement had arrived, even to the Doctor and the lads from the Village and beyond, and were standing, a silent group, with the leadership falling naturally to The Schoolmaster.

As in a dream I saw it, scarcely conscious of what was being done, and wondering why the minutes were so long before we could be off.

Then I felt a touch upon the shoulder and knew that Red Jack was close by me. And a moment later Jimmie Scott was half whispering to me to be hopeful, for the Lord would be good to me because of what I had done for Hannah.

Their nearness seemed to give me strength—it is when in trouble that a man knows his friends—and presently I was able to collect myself and knew that The Schoolmaster was marshalling the men into little companies, to spread out and pace the forest, the most difficult parts, because of rock and boggy swamp, being given to the stronger and younger of us,—Big Bill, and Ned Burns, Dick Jones, Jimmie Scott and Hank and me, with the lads from the Village.

And so we set out on our terrible journey, going forth in long lines, with a few yards from man to man; and the signal of finding her—scarce yet can I write the words—was to be a loud halloo passed on and on to the outermost.

So we passed all that day, going out every way, looking and looking behind the trees and logs and bushes and straining our ears for a halloo. The next day we went over the ground, and again the next, going ever farther by forest and field; and then the search narrowed down to the few horsemen among us who rode furiously to the villages, inquiring in

CHAPTER XV.

A Disappearance.

October 8th, 1837.

Now three weeks since I last... At night only did we return, hoping for word, and the agony of my heart bade fair to mount to madness in my brain and might have had it not been for a word of hope that came to me.

On my return after one of the days... Strangely enough, I can remember the conversation, though all that went before is lost in a nightmare confused of words, and grave bronzed faces, and hurrying forms in homespun.

Why no, I stammered, "except that one expects a daughter to stay with her father." She laughed a little. "Does Barry seem to you, then," she asked, "a daughter of Nick Deveril?"

I started, but held my head the higher. "That makes no difference to me." Again she laughed. "Come, come, don't be short," she said, "Honi soit qui mal y pense."—What do you say if I tell you that she was not the daughter of Mistress Deveril either?

Why no, I said. "But why are you playing with me like this? What I want to know is—if Barry—where she is—"

Perhaps you may not know," she was saying, "that I was the only person here of whom Mistress Deveril made—neither friend nor confidante, but something of the kind. Remember, she told me little—but reading between I knew that she was a woman of some—perhaps you would call it 'family'—and a woman with a story. Usually,

them, and of those whom we met on the highway.

At night only did we return, hoping for word, and the agony of my heart bade fair to mount to madness in my brain and might have had it not been for a word of hope that came to me.

On my return after one of the days—which one I do not know, for I lost all track of time—someone told me that Old Meg had been looking for me, and wished to speak with me immediately.

With a bounding of hope within me—how we snatch at straws, we poor mortals!—I hurried to her cabin, and she took me past her looms to the little back room where she lives.

Strangely enough, I can remember the conversation, though all that went before is lost in a nightmare confused of words, and grave bronzed faces, and hurrying forms in homespun.

Placing a candle on the table, she sat down near it, and motioned me to sit down also, and at the first glance at her face I was conscious of two impressions: that there was no hopelessness in her countenance, and—oddly enough at that moment—that she must have been a fine-looking woman in her day.

"Well, what do you think about it all, Alan? Eh?" she asked, looking at me. Then, before I could answer. "Listen to me, lad.—You think, or have thought, Barry may be dead.—I do not."

And I went to her and snatched her hands in mine. "Then tell me where she is for Heaven's sake!" I demanded. "If you know where she is, tell me!"

But she pushed me gently away. "Sit down," she said, "and hear me. I do not know, Alan; I only surmise. Answer me and help me to know that I surmise correctly. — Now" — leaning towards me, and speaking very slowly, "answer me this: Do you think Barry had any reason for staying longer with Nick Deveril?"

"Why—no," I stammered, "except that one expects a daughter to stay with her father."

She laughed a little. "Does Barry seem to you, then," she asked, "a daughter of Nick Deveril?"

To that I could make emphatic rejoinder. "No.—She is surely not spirit of his spirit, though she may be blood of his blood."

She nodded. "Aye.— Often enough children are not children, truly, of their parents. In that you speak well, Alan. Sometimes there are swans where there should be ducklings, and ducklings where there should be swans. It's something I've never been able to fathom, although I think for the most part heredity proves true. Usually ducks bring forth ducklings and swans, swans.—But, Alan, what if I tell you that Barry was not the daughter of Nick Deveril?"

I started, but held my head the higher. "That makes no difference to me."

Again she laughed. "Come, come, don't be short," she said, "Honi soit qui mal y pense."—What do you say if I tell you that she was not the daughter of Mistress Deveril either?"

And with that I was truly surprised. "No?" I said. "But why are you playing with me like this? What I want to know is—if Barry—where she is—"

"And I must tell you that I do not know," Meg responded, "Have patience, will you? Now answer me: If Barry is nothing—never was anything—to the Deverils, save a child left with money to pay for her keep, do you think she would now have any reason for staying with Nick Deveril?"

Then the light burst upon me, and I wondered that it had not come sooner. "No"—I began.

"Especially since the woman from Buffalo is proving so—capable," went on Meg, smiling.

"You think, then," I asked, "that Barry has just—left home?"

"Just that," she replied, nodding. I sprang up. "But where would she go?" I said passionately, yet with hope all singing in my breast.

"Why did she leave her clothes?—Why—"

But Meg interrupted again. "Her clothes.—Everything," she added quietly—"everything but the little beaded moccasins and the silhouette picture of a white man."

And then I sat down again, speech paralyzed, but brain alive with a hundred wild conjectures.

Meg was going on, still in the same low, even tones.

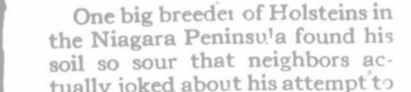


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There is much soil in Canada that would be the better for treatment—and the one great sweetener for it is limestone. So many farmers are aware of this important fact, that we find a ready market awaiting our new product.



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The Sweet Clover stalk shown in the above illustration is 8 feet high. It was grown on soil that had been sweetened with Limestone.

The larger picture above, is a reproduction from an actual photograph showing the field from which this stalk was taken.

Do not imagine that the benefits to be derived from the use of Agri-lime are confined to "fodder" crops. Agri-lime should also be employed to sweeten soil for raising vegetables. One of the great troubles vegetable growers have is that arising from the use of large quantities of manure—this often resulting in small and sickly crops.

You can spread Agri-lime on your soil at almost any time—but the best time is after plowing.

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And then I sat down again, speech paralyzed, but brain alive with a hundred wild conjectures.

head, she resumed, taking up her speech where she had broken it off.

"—A tragedy, Alan, and most times of the heart. Believe me when I tell you that Mistress Deveril did not marry Nick Deveril from choice, but to run away from something. What that was I don't know. But she couldn't run away from herself. She wasn't very happy,

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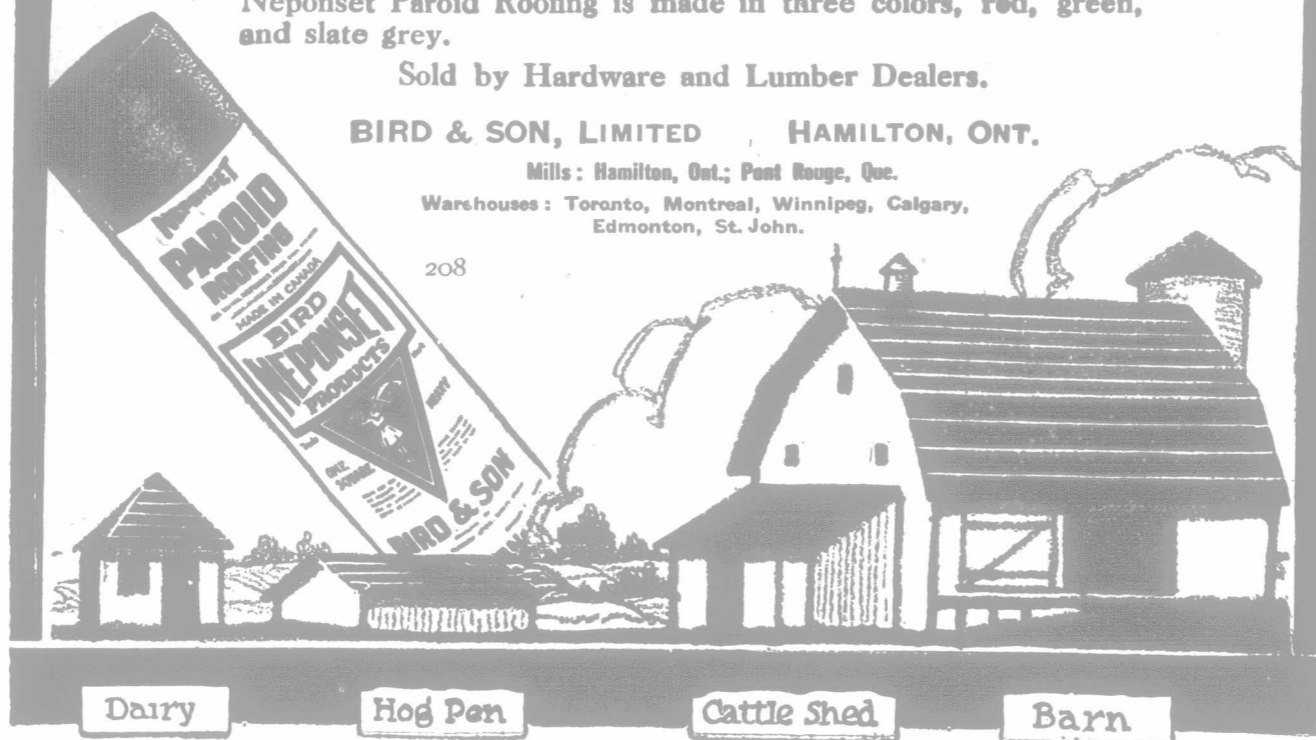
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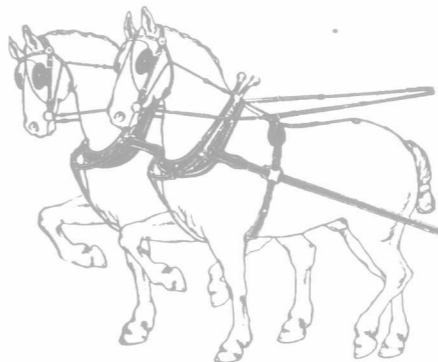
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poor body. Well, as I was about to say, one day she told me that Barry was a strangeling, and that someone had left money to pay for the care of her. Further than that she said nothing—reticence had become a habit with her, I think,—but that is enough to explain Barry's disappearance, don't you think?—especially now that she is no longer needed at the tavern."

"But did Barry know?" I asked.

Again Meg gave her quick nod of affirmation.

"I asked Nick Deveril straight, last night," she said, "if Barry knew, and he said he had told her, a few days before. I suspect he was out of temper and hurled it at her, poor child. He's stupid enough, in some ways, barring his passion for money, but he has a temper of his own, too, that flares out if anyone crosses him. And I don't think he ever liked Barry. He knew she was too good for that house."

All this I heard, but my mind was in a maze, my thoughts hurrying round and round, without ever seeming to get anywhere.

"But why," I said, "did she go away without speaking a word of it to any of us? Surely that wasn't necessary?"

To that Meg could give no satisfaction. "That I can't tell you, she said. 'Probably Barry had her own reasons.'"

—"And without her clothes," I persisted, except those she was wearing?"

To that a little frown of perplexity came on Meg's countenance. "That's the only puzzle," she said. "I confess that does puzzle me—and worry me a little too. It may be that—that an accident has happened. Yet—yes, Alan—I feel it, that Barry is alive and well somewhere, knowing perfectly just why she did as she has done. I don't think it ever occurred to her that the people here would be so troubled. She was almost too modest, was Barry."

Again we sat in silence, conjectures crowding upon me—and wonderings. Had Barry run away from me? Where had she gone? Would she write to one of us, presently?—All this broken upon by the horrible fear that after all, Meg might be mistaken. And then, in the very midst of my agony—so strange is the human mind—I marvelled at the bearing of this woman who talked with me, and at the manner of her speech.

That night I went home pondering much the things I had heard, and imagining one course and another that Barry might have taken; and into every device entered, persistently, sometimes extraneously, a vision of the little beaded moccasins. I would be picturing Barry, perhaps in some town or city, making her own fight for the sort of life which she had said she sometimes longed for—a life of high civilization—and I would be seeing her in a gown of flowered silk tripping through glittering halls, when suddenly the picture would be blotted out and there would be nothing but two little slippers of buckskin and beads.—And perhaps it was this persistency that led me to think of the Indians.

Thenceforth for days and days I rode here and there to all the camps of which I could hear, but of Barry I could gather not a word, nor of Wabadick, except that he and his squaw and papooses had left for the northern lakes "long time back."

From these long rides I would return home, keen with the hope that our missing one might have returned, only to have my heart thrown down again to its despair.

Through all the days my father wrestled alone with the harvest, and there was still much of it to be saved. Coming home one evening my sorrow lifted enough to let me think of him, for the temperature had lowered suddenly and there was promise of wet days that would destroy or injure the out-lying crops. My heart burned with gratitude to him that he had never once asked me to stay, and I was sorry for him, for the loss of a goodly part of the harvest is, in this hard new country, no small matter. But when I came within sight of the little farm I saw, in the fields, a sight that brought a lump to my throat, but a kindly grateful lump. Not a stalk was left standing; there were new stacks by the little barn, all covered and ready for the threshing; while from the fields two or three loaded wagons were being driven slowly in, men following, with forks on their shoulders.

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*Comprising the entire herd of
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Wednesday, March 26th, 1919

At Two p.m.

Most of the cows will be fresh in March and April, and Ayrshire breeders will find this a good opportunity to get some choice stock at their own price, as everything will be sold.

TERMS: Cash, or time will be given up to 8 months, at 6% per annum, on bankable paper.

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It is a well-known fact that good Shorthorns have been bred in Western Canada for many years. Cautious, discriminating breeders have built up splendid herds, producing outstanding individuals from the choicest blends of Scotch Shorthorn blood. Great sires and females have been imported and countless new herds have been developed, and from these herds a surplus is produced each year of a quality to appeal strongly to those men who know good Shorthorns, and good Shorthorn pedigrees, when they see them.

This sale is the first of its kind ever promoted in Canada. It is being held under the direct auspices of the Shorthorn Breeders' Association of Manitoba, Saskatchewan and Alberta, and the executives of these powerful organizations are very desirous of making this—their first sale—a red-letter day in the annals of Shorthornism in Canada.

To ensure the buyers a real treat, the Association decided to select the stock for this great sale, and the secretaries of each association—all of whom are outstanding judges of Shorthorns and Shorthorn breeding—were elected to select the bulls and females which will pass through the sale-ring.

APRIL 3rd and 4th

The best herds of Western Canada have been drawn on, and only the best from these herds will be seen at Brandon. Not only are the animals of high individual merit, but they carry pedigrees with them that will make them rich additions to any herd. Among the families represented are: ROSEBUD, DAIRYMAID, AUGUSTA, CLARET, LAVENDER, NON-PAREIL, MISS RAMSDEN, URY, MATCHLESS, STRATHALLEN, ROSE OF AUTUMN AND ISABELLA.

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The bulls and females will not come before the buyers in excessive fit, but will be seen in good smooth condition. On April 3rd, they will be judged by Professor Geo. E. Day, Secretary of the Dominion Shorthorn Association, and on April 4th every animal will be sold absolutely without reserve.

More than 125 head will pass through the sale-ring, and of that number the majority are cows and heifers, and the beginner will have a wonderful opportunity of selecting foundation stock that he knows is right.

For further information write to the Provincial Breed Secretaries:

J. B. DAVIDSON, Sec'y, Manitoba **H. FOLLETT, Sec'y, Saskatchewan**
Shorthorn Association, Myrtle, Man. Shorthorn Association, Duval, Sask.
E. MEYER, Sec'y, Alberta Shorthorn Association
Parliament Buildings, Edmonton, Alta.

"Bless them!" I exclaimed to myself. "Heaven bless them!"

They were all there—our nearest neighbors—Jimmy, and Big Bill, and Dick Jones, with Hank and The Schoolmaster and Ned Burns from the Corners; and The Schoolmaster was shirtsleeved like the rest and was walking in beside Big Bill.

—So great and warm is the heart of this wilderness!

The drilling has begun they tell me, behind The Block at Jimmy Scott's, the men slipping to it by the road, and by devious paths through the thick growth of The Block, —most of all, perhaps, by the little trail through the forest which Jimmie has made to the mill, and along which, often, he carries his bag of grain on his back. Great secrecy is maintained, in all these doings, but as yet I have not been a part of them.

To be continued.

Purpose.

To pick up little moments of the day,
That slip away from us unconsciously,
While we are dreaming of our future tasks—
To be as busy as we mean to be—

Would make us rich in time we're sighing for;
Would give us happy hearts at set of sun;
Would crowd our lives with restfulness sweet-earned,
And comfort in the thought of work well done!

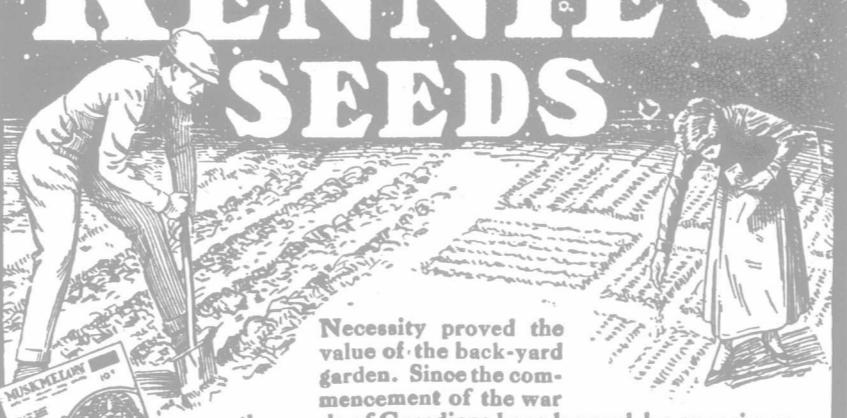
AMY E. CAMPBELL.

"Do you know why money is so scarce, brothers?" the soap box orator demanded, and a fair-sized section of the backbone of the nation waited in leisurely patience for the answer.

A tired looking woman had paused for a moment on the edge of the crowd. She spoke shortly.

"It's because so many of you men spend your time telling each other why, instead of hustling to see that it ain't!"

A VICTORY GARDEN assured with RENNIE'S SEEDS



Necessity proved the value of the back-yard garden. Since the commencement of the war thousands of Canadians have learned by experience that even a small garden will pay—and pay well.

Make your garden the big provider this year.

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Bean Improved Golden Wax	Parship Hollow Crown
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Current Events

A bill setting apart free farms, without any obligation, for all honorably discharged soldiers, was introduced into the Quebec Legislature by Hon. L. A. Taschereau, Minister of Public Works and labor.

Some rioting and destruction of property, with some loss of life occurred at the Canadian Camp at Kinmel, Wales, on March 4 and 5. It is said the riot was led by foreigners, and a number of arrests have been made.

American troops have arrived in Berlin to guard food transports sent to that city.

The British Government has decided to release an additional 50 per cent. of spirits for public consumption.

Confusion verging upon anarchy still reigns in Germany, partly because of the great scarcity of food and raw material for manufacturers, the latter of which will not be sent in until Germany has given sufficient guarantees of good behavior to the Allies to enable them to raise the blockade. In some parts the peasants are said to be demanding reapportionment of the land; while in Bavaria the proletariat has arisen to defeat the feudal revolution started by the Monarchists to whom the murder of Premier Eisner and Herr Auer was due. In Munich the "Reds" are now in full control. In Berlin on March 7th Government troops made an attack on the Spartacists, and, at time of going to press are said to have the situation well in hand.

At time of going to press the work of the Peace Conference is held up somewhat because of the objection of Germany to the proposed surrender of her merchant shipping, and the departure of the German delegates to Weimer for consultation. Premier Lloyd George, who had been in England settling labor disputes, returned to Paris on March 4th, and Pres. Wilson, after a short sojourn in the United States, set sail again on March 5th, but with no

POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at 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 for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 60 cents.

AFRICAN GUINEAS, (WHITE) TWENTY choice imported pairs. Indian Runners. 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.

BABY CHICKS BEST LAYING STRAINS. S. C. White Leghorns 18c each. Barred Plymouth Rocks 22c each. Hatching eggs \$1.25 per setting, \$6.50 per hundred. G. W. Grieve, Parkhill, Ont.

BUFF ORPINGTON PURE-BRED COCKER-ELS and pullets for sale. James McGregor, Caledonia, Ont.

CHOICE SINGLE-COMB WHITE LEGHORN eggs for hatching, \$1.50 for 15. Wm. Charlton, Ilderton, Ont.

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.

EGGS FOR HATCHING—BRONZE TURKEYS Barred and White Rocks, Pekin, Rouen and Indian Runner ducks, White Wyandottes, White Leghorns and Rose-comb Brown Leghorns. Write for prices. J. H. Rutherford, Albion, Ont.

FOR SALE—BARRED ROCK COCKERELS—Bred-to-lay strain, 3 and 5 dollars each. Wm. R. Goff, Route 1, Glenora.

FOR SALE—MUSCOVY DUCKS \$5.00 PER pair. Eggs for hatching \$2.00 per setting. Apply J. A. Tancock, 95 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 LEG-horns. Rose Comb White Wyandottes. Bred-to-lay and prizewinning stock. Eggs \$2.50 per fifteen. Ezra Stock, Woodstock, Ontario.

PURE BRED ANCONAS SHEPHERD STRAIN. Eggs for setting 5c. each, John A. Pollard, R. R. No. 2, Dashwood, Ont.

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.

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.

SMITHDALE STOCK FARM OFFERS ONE pen each variety bred-to-lay Barred and White Plymouth Rocks, White Wyandottes and Single-comb White Leghorns, nine females and one male, at twenty-five dollars per pen. Eggs and baby chicks. Circulars. C. E. Smith, Scotland, Ont.

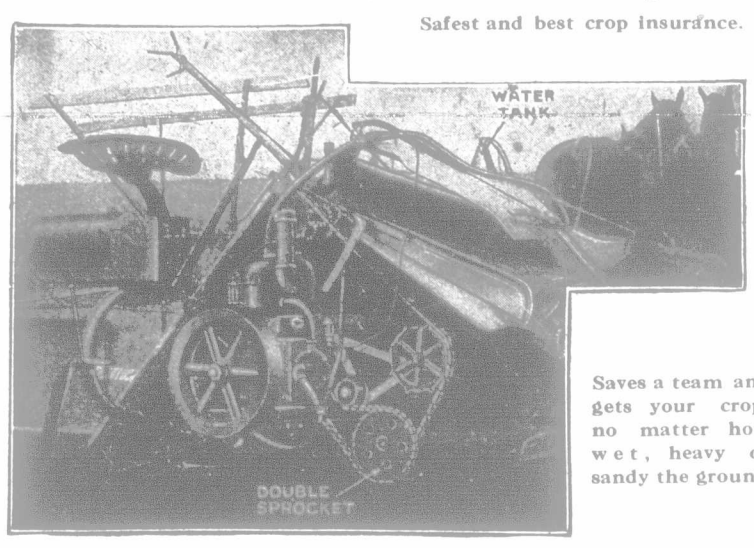
S. C. WHITE LEGHORNS—230-264-EGG strain, or O.A.C. Barred Rock eggs, \$1.50 setting; \$5 hundred. Selected egg-producers that cannot be beaten. A. B. C. Dickinson, Port Hope, Ont.

TURKEYS AND GESE—WE HAVE THIS spring 40 healthy Bronze turkey hens, mated to husky young toms. Eggs in season, \$3.00 per 10. 30 choice Toulouse geese, also well mated; eggs now ready, \$4.50 per 9. Few toms and ganders on sale. Everything in pure-bred land and water fowls. Write us first. Stamps for early reply. Yamaska Poultry Farms, St. Hyacinthe, Que.

WHITE WYANDOTTES, BRED FOR TYPE, size, vigor, and production. Eggs for hatching, \$2.00 per 15. Frank Morrison, Jordan, Ont.

assurance that the Senate will approve his stand on the great League of Nations plan, to which Senator Lodge and other Republican members are taking exception, possibly from a merely party political standpoint. Immediately previous to the interruption at the Conference it was decided that conscription is to be abolished in Germany, only a national guard, for protective and police work being permitted. It is also that some of the German territories shall be given to France and Italy, and the interests of these countries shall be protected during the war. Also the League of Nations is a very necessary thing to have for the future. An eight hour day, with a half holiday a week, is a compromise between

Good News for Ontario Farmers
WORLD FAMED GENERAL PURPOSE Light Weight CUSHMAN ENGINES
can now be obtained in Ontario



Safest and best crop insurance.

Saves a team and gets your crop, no matter how wet, heavy or sandy the ground

These lightest weight engines give absolutely steady, quiet and dependable power owing to their perfect balance, construction and workmanship. 4 horse engine can be used on Binder (see illustration), Potato Digger and for all general work that any 4 horse engine can be used for.

4 h. p. Engine weighs 190 lbs.
8 " " " " 320 "
15 " " " " 780 "
20 " " " " 1200 "

Tell us what you need an engine for and we'll send you full particulars. Ask us also for descriptive literature on the Western Packer, Pulverizer and Mulcher.

Cushman Motor Works of Canada, Limited
36 Colborne St., TORONTO
Head Office: Winnipeg, Man.
Also at Saskatoon, Edmonton, Calgary

ADVERTISEMENTS

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—NEAR FREDRICKTON—FARM four hundred acres, fifty high land, 30 intervals. Abundant lumber. House, fifteen rooms; also small house 4 rooms; 2 barns. Lascelles Belmont, Fredrickton, New Brunswick.

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.

MAN WITH FOUR SEASONS' EXPERIENCE wants job of handling stallion for coming season. Wages, sixteen dollars per week. Dan. Weir, R. 3, Belmont, Ont.

PUPS FOR SALE—BLACK AND TAN—Bred from excellent cattery drivers. Price \$5.00. E. C. Whitteside, Egbert, Ont.

WANTED, MARRIED MAN must be thoroughly experienced in animal work. House supplied. Also require experienced single man. H. M. Pettit, Freeman, Ont.

WANTED—RELIABLE SINGLE MAN FOR farm, one accustomed to handling stallions. Apply Box A, Farmer's Advocate, Toronto.

WANTED—YOUTH ABOUT EIGHTEEN FOR stock farm. Young Scotchman with Old Country farm experience preferred. Reply, with full particulars, to Drawer One-fifteen, Walkerton, Ont.

FOR SALE

Team, agricultural colts rising 2 and 3 years prize winners. For particulars apply to

A. Murchison - Woodville, Ont.

15 and 18 to put in a six-hour day, of which 2 hours must be spent in educational classes, technical or academic; women must not be employed at night nor at dangerous work, nor for 10 weeks before and after confinement; maternity insurance to be instituted; women to have equal pay with men for equal work; workers to have the right to unionize, and to be insured by the State against accidents; also unemployment insurance to be instituted. . . . As yet the question of reparation and indemnities has not been disposed of. . . . The general absence of definite results shows perhaps, the complications and difficulties the delegates are meeting with. Among the problems are the claims of many small nations for self-determination, some of which interfere with previous agreements among the great powers; the award of the German islands in the Pacific, claimed by both West-Asian and Japan; Switzerland's demands for trade routes to the sea; demarcation of boundaries; settlement of the complication between the Jugo-

Slavs and Italy; the claim of the Jews to have all races made equal and free, and disabilities removed, in all countries; the demand of France for freedom in Morocco; etc. A commission has been sent to Poland to seek some means of settling the difficulties there regarding the German Polish frontier and collision with the Ukraine. . . . During the past week the Secret Treaties between Japan and China, to whose publication Japan was opposed, have been laid upon the Peace table, at the insistence of the President of China and Chinese delegates. They show the aims of Japan to secure practical control of Shantung; and also reveal that for financial advances Japan secured extensive railway rights in Manchuria, Mongolia and Chi-Li. These obligations China now does not wish to carry out. . . . British and American representatives have refused a large military expedition to Russia to suppress the Bolsheviki, and this is not satisfactory to the French who loaned immense sums to Russia which the "Reds" have no intention of paying. In the meantime both Americans and Canadians are clamoring for the return of the few hundred of their men who are still at Archangel, engaged in desultory fighting.

Sale Dates.

- 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 17, 1919.—C. F. Jackson, Port Stanley, Ont.—Cattle, Horses, etc.
- March 18, 1919.—A. Hughes & Son, Sarnia, Ont.—Jerseys.
- March 18, 1919.—Wm. J. Roger, R. 1 Munro, Ont.—Scotch-topped Shorthorns.
- 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 25, 1919.—J. T. Lethbridge & Sons, Glenora, Ont.—Lincoln Sheep, etc.
- March 26, 1919.—J. W. Waters, Moorefield, Ont.—Ayrshires.
- 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 Breed-

SEEDS

WE PAY FREIGHT ON ORDERS OF \$25.00 OR MORE IN ONTARIO AND QUEBEC.

CLOVER	
(Gov't Standard) Per Bus.	
No. 1—Red Clover "Sun"	\$36.00
No. 1—Red Clover "Special"	28.00
No. 1—Timothy	7.75
(Extra No. 1 for purity)	
No. 2—Timothy	7.25
(Extra No. 1 for purity)	
No. 2—Timothy (Special)	6.50
(No. 1 purity)	
No. 1—Alsylke "Ocean"	21.00
No. 1—Alsylke "Special"	19.00
No. 3—Alsylke & Timothy	
Mixed (No. 1 purity)	16.00
No. 2—Alfalfa—Ontario Variegated (No. 1 for purity)	27.00
No. 2—Alfalfa Ontario Variegated	24.00
No. 3—Alfalfa Ontario Variegated	22.00
Sweet Clover—White Blossom (Biennial) hulled seed	13.00
Alfalfa and Sweet Clover scarified \$1.00 bus. extra.	
Cotton Bags for Clover and Timothy, 60c. each.	

MANGEL SEEDS
Prizetaker, Giant Half Sugar, Yellow Intermediate, Yellow Leafhain, Mammoth Long Red, A 1 Seed. Germination 112 to 160%. Price 60c. per lb., Post Paid 65c. per lb.

CORN ON COB	
Per Bus	70 lbs.
Bags Free	
Longfellow	\$4.50
White Cap	3.25
Golden Glow	3.75
Wisconsin No. 7	3.75
Balley	3.75
Improved Learning	3.75
Specialy priced for early shipment, carefully selected, strong, vigorous seed. Recent tests show 95 to 98 per cent. germination.	
If you order 25 Bushels of Corn or more we will allow a reduction of 25c per bushel. We sell direct to farmers. No Middleman's profits.	
BARGAIN IN BAGS. WRITE FOR PRICES	
ASK FOR CATALOGUE	

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

- ers' Club Sale, St. Thomas, Ont.—E. C. Gilbert, Sec.
- April 1, 1919.—J. J. Merner, M. P., Seaforth, Scotch Shorthorns.
- April 2, 1919.—Belleville District Holstein Breeders, Belleville, Ont.—Jas. Caskey, Sec., Madoc, Ont.
- April 2, 19—Laurie Bros., R. 1, Agincourt, Ont.—Ayrshires.
- April 3 and 4, 1919.—Western Canada Short-horn Show and Sale, Brandon, Man.
- April 3, 1919.—Menie District Ayrshire Breeders' Club, Campbellford, Ont.—W. E. Tummon, Sec.
- April 4, 1919.—Wm. J. Haggerty, R. R. 3, Stirling, Ont.—Ayrshires.
- April 10-11, 1919.—Canadian National Holstein Sale.—Toronto.

SHEET METAL PRODUCTS

For Building and Repair Jobs on the Farm

FIREPROOF—DURABLE—ECONOMICAL

FOR THE BARN

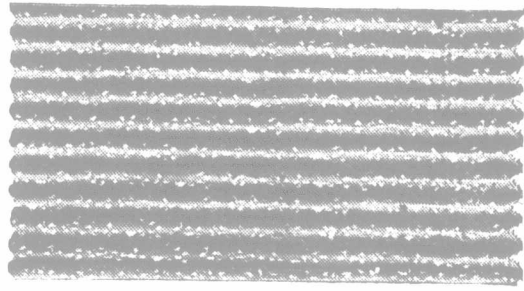
"Acorn"

*Corrugated Sheets

The most durable barn roofing made. Can be put on over old shingles or on furring strips.

28 gauge, per square . . \$8.25
26 gauge, per square . . 9.00

See note at bottom re freight allowance.



FOR THE HOUSE

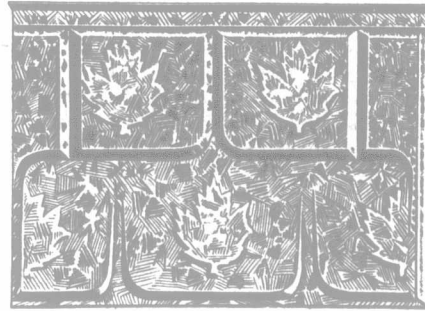
Preston

*"Safe-Lock" Shingles

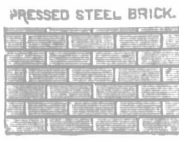
Make a roof that is absolutely water-tight and weather-proof. Fire cannot touch it—lightning cannot strike it. Easy to lay—the shingles lock into each other without effort.

Price per square (actual covering capacity), \$10.00

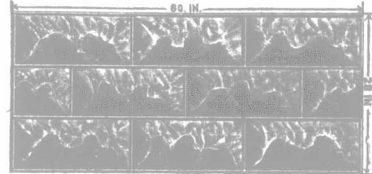
See note at bottom re freight allowance



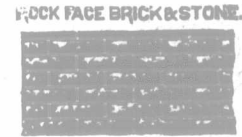
*GALVANIZED SIDINGS—LARGE OR SMALL SHEET



These Sidings will fireproof any building on which they are applied, and will add many years of life to old buildings.

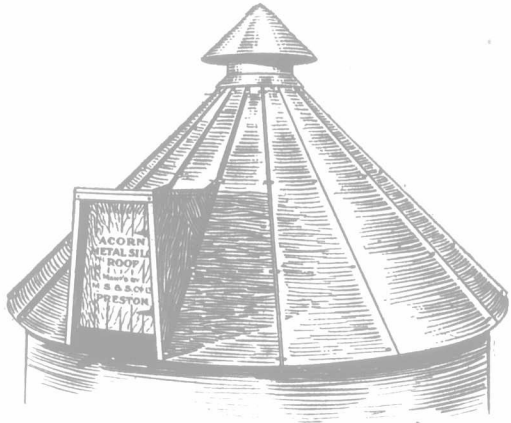


The large sheet styles can be used over any kind of old sheeting. It is very useful for covering over even rough-cast surfaces which have cracked and bulged.

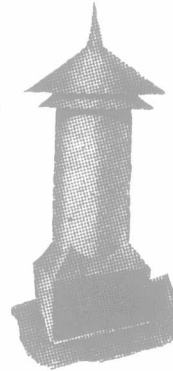


Price per square, \$8.50. See note at bottom re freight allowance.

SILO ROOFS of Heavy Gauge Galvanized Iron



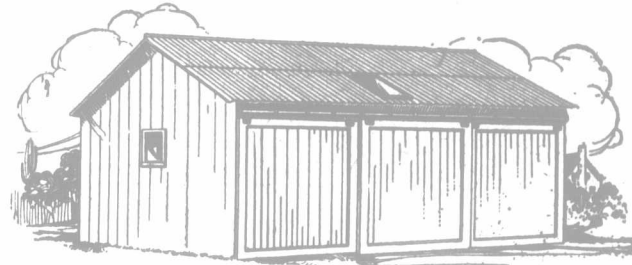
The saving in ensilage will soon pay for this silo roof. You can buy a 12-foot top as illustrated for \$58.00, and it is so constructed that it can be erected in a few hours' time.



The "Acorn" Ventilator will draw off the foul air and keep the barn cool and sanitary. Height over all 10 ft. Diameter 24 in. Base 30 in. square.

Price, \$33.00.

Garages and Implement Buildings



Have a separate building for your motor car or tractor. We furnish portable buildings in any style or design for the safe keeping of valuable farm machinery. The building shown above, with metal roof and all necessary materials 20 ft. x 36 ft., sells for \$396. Two men can erect this building in 3 hours' time.

Please send me your literature about the goods I have marked.

- Preston Steel Truss Barns
- Preston Safe Lock Shingles
- Preston Steel Ceilings
- Acorn Corrugated Sheets
- Preston Steel Sidings
- Preston Ready-made Buildings
- Preston Silo Roof
- Acorn Cow Bowl
- Acorn Hog Trough
- Preston Portable Garages
- Acorn Ventilators

Name.....
P.O. Address.....
R.R. No. F.A.



ACORN WATERING BOWLS

This bowl will work satisfactorily at any height desired, as it is not controlled by a float valve. Suited for either overhead or underground supply pipes.

Price, each \$2.50.



ACORN HOG TROUGHS

Are built of heavy gauge galvanized steel, with malleable ends. They are very staunch and rigid. A 4 foot trough sells for \$3.10.

We manufacture a complete line of building materials for the farm

**STEEL TRUSS BARNs - READY MADE BUILDINGS
METAL CEILINGS - STEEL TANKS, ETC.**

Write for our Free Catalogue on Farm Building Supplies

On all items marked * we allow freight to Railway Stations in Ontario, South and East of North Bay, also to Railway Points in Labelle, Pontiac and Wright Counties, Que.

THE METAL SHINGLE & SIDING CO., LIMITED

PRESTON (Head Office)
120 Guelph St.

TORONTO
40 Abell St.

MONTREAL
86 De Lorimier Ave.

ENGINES

Light engines give absolutely dependable power owing to fine construction and workmanship. Can be used on (a) Potato Digger and (b) that any 4 horse engine

weighs 190 lbs.
" 320 "
" 780 "
" 1200 "

You need an engine for and particulars. Descriptive literature on Pulverizer and Mulcher.

Motor Works Ltd., Limited

TORONTO
Winnipeg, Man.
Edmonton, Calgary

SEEDS

WE PAY FREIGHT ON ORDERS of \$25.00 or MORE ONTARIO and QUEBEC.

CLOVER
Standard Per Bus. \$30.00
Red Clover "Sun" 30.00
Red Clover "Special" 28.00
Timothy 7.75
(Extra No. 1 for purity)
Timothy 7.25
(Extra No. 1 for purity)
Timothy (Special) 6.50
(No. 1 purity)
Alsike "Ocean" 21.50
Alsike "Special" 19.00
Alsike & Timothy
d (No. 1 purity) 16.00
Alfalfa—Ontario Variegated
1 for purity) 27.00
Alfalfa Ontario
gated 24.00
Alfalfa Ontario
gated 22.00
Clover—White Blossom
nial hulled seed 13.00
and Sweet Clover scarified
s. extra.
Bags for Clover and Timothy.

MANGEL SEEDS
er, Giant Half Sugar,
Intermediate, Yellow Leaf,
Mammoth Long Red, A 1
Germination 112 to 160%
c. per lb., Post Paid 65c.

CORN ON COB Per Bus 70 lbs.
Bags Free
ow \$4.50
sp 3.25
Glow 3.75
in No. 7 3.75
d Learning 3.75
y priced for early shipment
selected, strong, vigorous
recent tests show 95 to 98 per
mination
order 25 Bushels of Corn or
will allow a reduction of 25c
el. We sell direct to farmers.
leman's profits.
I IN BAGS. WRITE for PRICES
ASK FOR CATALOGUE

KEITH & SONS

111 King St. E. TORONTO

le, St. Thomas, Ont., E. C.

1919.—J. J. Merner, M. P.,
atch Shortorns.

1919.—Belleville District Hol-
ers, Belleville, Ont.—Jas.

Madoc, Ont.

—Laurie Bros., R. 1, Agin-
Ayrshires.

d 4, 1919.—Western Canada
ow and Sale, Brandon, Man.

19.—Menie District Ayrshire
ub, Campbellford, Ont.—W.

Sec.

1919.—Wm. J. Haggerty, R.
Ont.—Ayrshires.

1, 1919.—Canadian National
—Toronto.

Standard Bank of Canada

The Forty-Fourth Annual Meeting of the Shareholders of The Standard Bank was held at the Head Office, 15 King Street West, on Wednesday, the 26th inst. A large number of Shareholders was present.

The chair was occupied by the President, Mr. Wellington Francis, K.C., and Mr. E. A. Bog, Chief Inspector, acted as Secretary to the Meeting and read the following report:

In presenting the Forty-Fourth Annual Report and Statement of the affairs of the Bank for the year ending 31st January, 1919, your Directors have pleasure in stating that the results for that period have been satisfactory.

The Net Earnings amount to \$697,443.71, after provision has been made for bad and doubtful debts, interest on deposits, rebate on current bills under discount, Provincial taxes, and cost of management. This amount, added to the balance of Profit and Loss Account, \$175,215.82, brought forward from last year, together with \$46,710 for premium on new stock issued, makes the sum of \$919,369.53

This has been appropriated as follows:

Four quarterly dividends at the rate of 13% per annum.....	\$453,892.99
Contributed to Officers' Pension Fund.....	20,000.00
Contributed to Patriotic and Kindred Funds.....	36,600.00
War Tax on Bank Note Circulation to 31st Dec., 1918.....	34,839.64
Premium on new stock.....	46,710.00
Reduction of Bank Premises' Account.....	100,000.00
Balance of Profit and Loss Account carried forward.....	227,326.90
	\$919,369.53

Your Directors record with deep regret the death, in October last, of our late President, Mr. William F. Cowan, who had been closely associated with this Bank for the past forty-three years, occupying the position of Vice-President from 1875 to 1883, and President from 1883 to 1918. The valuable services rendered by Mr. Cowan during that time have materially contributed to the growth and development of the Bank. The vacancy caused by Mr. Cowan's death has been filled by the election of Mr. Wellington Francis, K.C., who has been a Director of the Bank since 1902, holding the office of Vice-President since 1913.

Mr. Herbert Langlois has been elected Vice-President. During the year Branches and Sub-Branches have been opened at Bindloss, Alta.; Bon Accord, Alta.; Coaldale, Alta.; Parkland, Alta.; Raymond, Alta.; Stirling, Alta. (sub. to New Dayton); Wayne, Alta.; Paynton, Sask. (sub. to Maidstone); Gray, Sask. (sub. to Regina); Ashern, Man. (sub. to Eriksdale); Eriksdale, Man.; and Goodwood, Ont. (sub. to Stouffville).

The Branch at Paisley, Ont., was closed. The usual inspection of the Head Office and Branches has been made, and the duties of the staff have been faithfully and efficiently performed.

The regular audit of the Bank's affairs has been made by Mr. G. T. Clarkson, C.A., and his report is appended herewith. Mr. Clarkson's name will be again submitted at the Annual Meeting for re-appointment as Auditor for the ensuing year. Toronto, 31st January, 1919. WELLINGTON FRANCIS, President.

GENERAL STATEMENT—31st January, 1919—LIABILITIES	
Notes of the Bank in circulation.....	\$ 6,697,858.00
Deposits bearing interest (including interest accrued to date).....	\$42,563,695.61
Deposits not bearing interest.....	23,405,862.81
Dividend No. 113, payable 1st February, 1919.....	65,969,558.42
Former dividends unclaimed.....	113,750.00
Balance due to other Banks in Canada.....	61.75
Balances due to Banks and Banking Correspondents elsewhere than in Canada.....	1,227,161.45
Acceptances under Letters of Credit.....	1,148,889.61
Capital paid up.....	272,259.17
Reserve Fund.....	3,500,000.00
Balance of Profit and Loss Account carried forward.....	4,500,000.00
	227,326.90
ASSETS	
Current coin held by Bank.....	\$83,656,865.30
Dominion Notes held.....	\$ 1,772,059.84
Deposits in the Central Gold Reserves.....	10,812,621.00
	3,500,000.00
	\$16,084,680.84
Notes of other Banks.....	\$ 362,061.00
Cheques on other Banks.....	2,597,090.27
Balances due by Banks and Banking Correspondents elsewhere than in Canada.....	1,437,211.73
Dominion and Provincial Government Securities not exceeding market value.....	4,521,486.89
Canadian Municipal Securities and British, foreign and colonial public securities other than Canadian.....	8,473,705.37
Railway and other bonds, debentures and stocks not exceeding market value.....	857,273.01
Call and Short (not exceeding thirty days) Loans in Canada on bonds, debentures and stocks.....	1,732,828.03
	19,981,656.30
Other Current Loans and discounts in Canada (less rebate of interest).....	\$36,066,337.14
Liabilities of Customers under Letters of Credit as per contra.....	45,593,854.13
Real Estate other than Bank Premises.....	272,259.17
Overdue Debts, estimated loss provided for.....	7,770.56
Bank Premises, at not more than cost, less amounts written off.....	64,699.92
Deposits with the Minister for the purposes of the Circulation Fund.....	1,346,556.65
Other Assets not included in the foregoing.....	175,000.00
	130,387.73
	\$83,656,865.30

W. FRANCIS, President.

C. H. EASSON, General Manager.

AUDITOR'S REPORT TO THE SHAREHOLDERS.

I have compared the above Balance Sheet with the books and accounts at the chief office of The Standard Bank of Canada, and the certified returns received from its branches, and after checking the cash and verifying the securities at the chief office and certain of the principal branches on January 31st, 1919, I certify that in my opinion, such Balance Sheet exhibits a true and correct view of the state of the Bank's affairs according to the best of my information, the explanations given to me, and as shown by the books of the Bank.

In addition to the examination mentioned, the cash and securities at the chief office and certain of the principal branches were checked and verified by me at another time during the year, and found to be in accord with the books of the Bank.

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

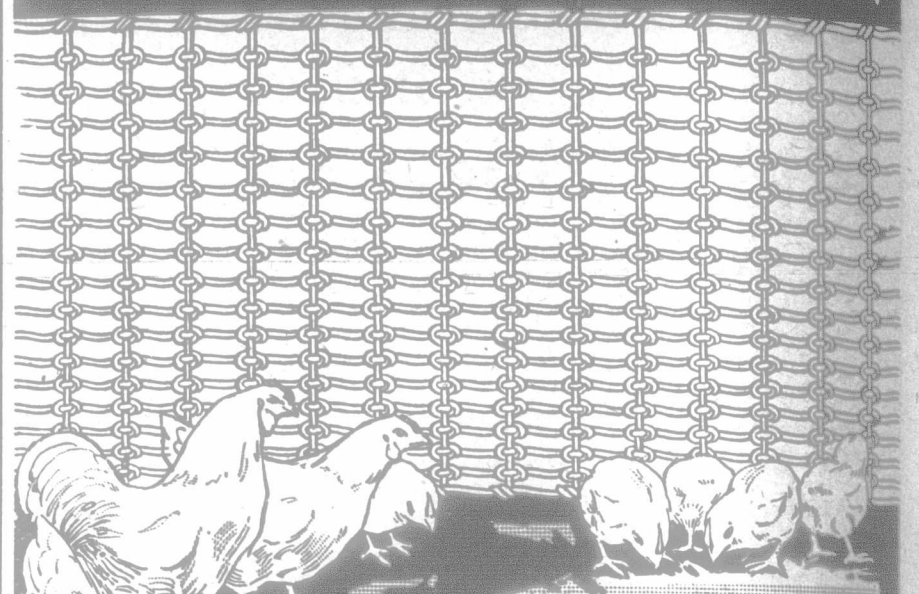
G. T. CLARKSON, F.C.A., of Clarkson, Gordon & Dilworth, Toronto, Canada, Toronto, February 15th, 1919.

The President addressed the meeting and the General Manager reviewed the Statement, after which the usual motions were passed, and the scrutineers appointed, reported the following Directors elected for the ensuing year: Wellington Francis, K.C., W. F. Allen, H. Langlois, F. W. Cowan, T. H. Wood, James Hardy, T. B. Greening.

At a subsequent meeting of the Directors, Mr. Wellington Francis, K.C., was elected President, and Mr. H. Langlois, Vice-President.

C. H. EASSON, General Manager.

SARNIA POULTRY FENCE



Make More Money!

Buy a Real Poultry Fence

THERE is a growing demand for a lighter weight fence suitable for poultry yards, orchards, gardens and other farm purposes. There is also a demand for a heavier weight poultry fence than the so-called poultry netting. You may have had some experience with the light weight netting, and, if so, you know that it is a waste of time and money to put it up, besides it always has a loose, shiftless appearance. The Sarnia Fence overcomes these objectionable features. The extra strength of our fence enables us to stretch it to any desired tension. Stay wires and lateral wires in this fence are fastened securely by the famous Sarnia Knot, providing ample rigidity in the body of the fence and making it adjustable and suitable for various purposes about the farm. The Sarnia Fence is close enough to turn small fowl, yet strong enough to turn a large bull, thus affording perfect protection to your yards and grounds.

SARNIA POULTRY FENCE

is easily constructed, requires less posts. You don't need a top or bottom board to keep it in place. Lasts many times longer than netting because its wires are larger, stronger, and the fence itself is attractive and durable. There is no buckling of wires. It is easily constructed over uneven ground; no sagging or bagging as in the case of the flimsy netting, and when it is once properly constructed it is there to stay. It gives you real fence satisfaction. Poultry farmers all over Canada testify to its value. It is the "Farmer's Friend" kind. Poultry in Canada has gone a long way toward keeping the home table supplied while the boys were "over there." Build the poultry business for permanency as a business. Sarnia Fence will do its part. Will you do yours? In your new drive for business, don't forget that poultry is a business, and that Sarnia Poultry Fence is necessary to your success.

Sold and shipped direct from factory to farm, freight prepaid. Send for our descriptive literature about farm fencing, gates, lawn fencing and supplies. Prepaid freight prices are quoted in Old Ontario, New Ontario, Quebec, Maritime Provinces, four cents per rod extra. Our office at Winnipeg takes care of all Western Canada business. Shipments made F. O. B. Winnipeg. Order now. Have your fencing in hand early, and when you need it. Let's tell you what the Sarnia Poultry Fence will cost laid down at your railroad station in whatever quantity you may desire.

SARNIA FENCE COMPANY, Limited

Winnipeg, Manitoba

Sarnia, Ontario



Gossip.

Belleville District Holstein Sale.

In the advertisement elsewhere in this issue re the Belleville District Holstein sale a typographical mistake occurs in the Secretary's post office address. It should read "Frankford."

Holsteins at Brantford.

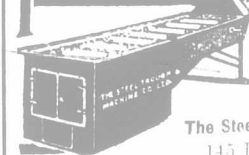
Holstein breeders who are in search of young cows in full flow of milk should keep in mind the Brant County sale to be held in the city of Brantford on March 26. In selecting the females for this sale the inspection committee has followed a new rule this year and have taken cows that are either in full flow or freshening within six weeks of sale day. This makes it distinctly a sale of breeding cattle and the plan should prove an advantage to buyer and seller alike.

The number selling is fifty head. There are only three bulls in the offering. All requests for catalogues should be made to N. P. Sager, St. George, Ont., Secretary of sale.

Cheese Markets

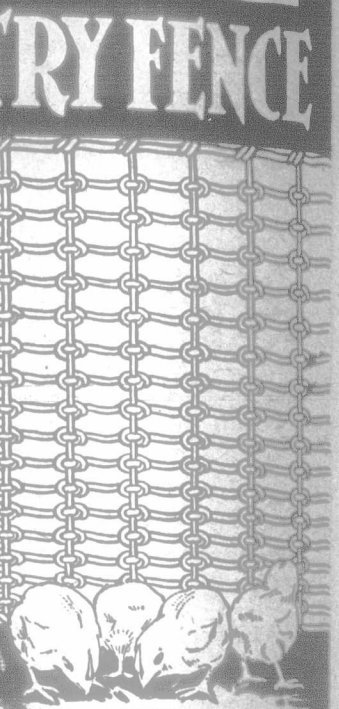
New York, specials, 32c. to 32½c.; average run, 31½c.; Montreal, finest easterns, 24c. to 25c.

Perfect Maple Evaporator



Simple to operate, made of first quality material. Every one guaranteed. Price so moderate that any one can buy.

The Steel Trough Machine Co., Limited
145 Jarvis Street, Tweed, Ont.



POULTRY FENCE

ke Money!

Poultry Fence

er weight fence suitable and other farm purposes. eight poultry fence than have had some experience you know that it is a waste always has a loose, shift- times these objectionable enables us to stretch it to 1 wires in this fence are Knot, providing ample it adjustable and suit- The Sarnia Fence is close ough to turn a large bull, ards and grounds.

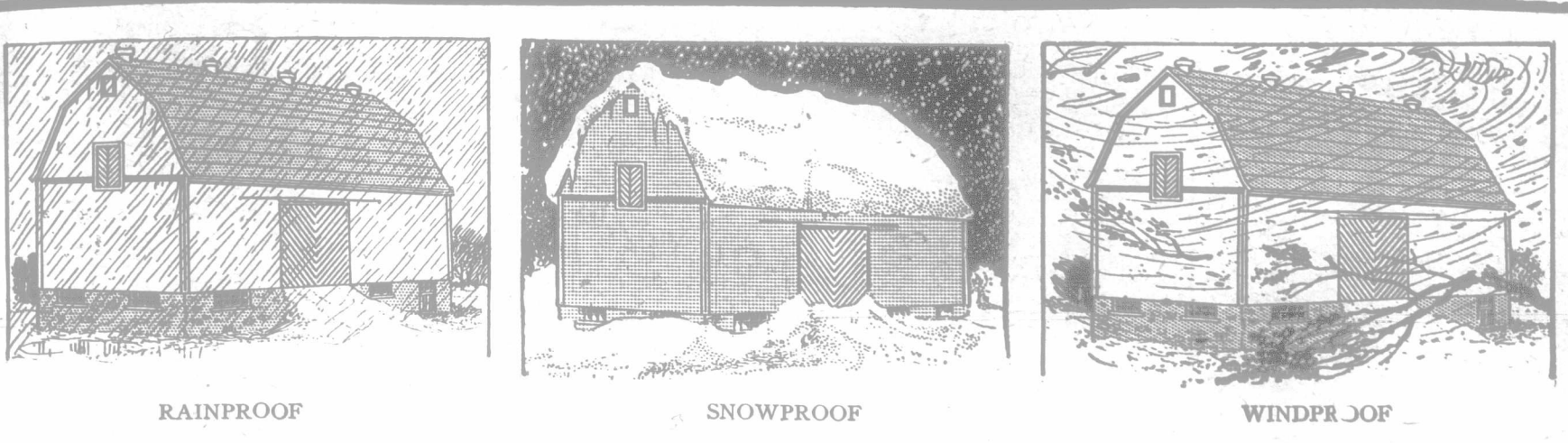
POULTRY FENCE

You don't need a top or many times longer than er, and the fence itself is ing of wires. It is easily ing or bagging as in the ace properly constructed e satisfaction. Poultry e. It is the "Farmer's n long way toward keep- oys were over there."

as a busi- do you? that pou- y Fence is

rm, freight ure about es, Prepaid w Ontario, od extru- stern Can- Winnipeg, early, and he Sarnia r railroad e.

ited nia, Ontario



RAINPROOF

SNOWPROOF

WINDPROOF

The Economy of an Asphalt roof

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

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

Brantford Asphalt Roofing

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

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

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

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

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

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

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

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

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

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

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

Write for a copy. It is free.

Brantford Roofing Co. Limited

Brantford, Canada
Branches at Toronto, Montreal, Halifax

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

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

SEED CORN
Kiln dried improved White Cap Yellow Dent. Government test eight-five per cent in four days, one hundred per cent in ten days. Write for Bondy's Seed Annual dated Feb. 12th, 1919.
DARGY E. BONDY ARNER, ONT.

FOR SALE
Choice Field Peas, variety Sappino, \$3.00 per bus. Apply
FRED POOLE, R. 1, Lambeth, Ont.

Choice Clover Seed
Red Clover grown in Haldimand County \$24.00 a bushel. Write for sample. Govt. grading.
PRESTON L. BARTLETT
R. R. No. 1 Nanticoke, Ontario

\$4800 A YEAR on a 50-foot lot raising Rufus Red Belgian Hares and Flemish Giant Rabbits. We furnish high grade stock and pay \$7.00 a pair, also express charges, for all you raise from same. We need 3000 weekly. Get our FREE BOOK telling how to feed, breed and house. Get started right. Don't breed common rabbits.
DAVIS & SON, 128 AVE. 31, LOS ANGELES, CAL.

Please mention Advocate

Canadian Bred Shorthorns

It will be of interest to Canadian breeders to know that the get of Gainford Perfection, a bull bred by J. A. Watt, of Elora, won first for three animals get of sire at the recent Shorthorn Congress Show and sale in Chicago. The three animals sold for a total of \$9,150. Hercules Diamond, one of them, topped the sale at \$5,000. Master Ruby, a bull bred by W. A. Dryden, of Brooklin, has also won renown across the line. At the 1918 International Show the get of this sire scored the following successes: first-prize two-year-old heifer and grand champion female; first prize for four animals get of one sire; tenth prize for two-year-old bull; third prize for senior yearling bull; second prize for junior yearling bull; fourth prize for senior yearling heifer; fourth for junior yearling heifer; tenth for senior heifer calf. The members of the second-prize graded herd were also sired by Master Ruby. The above winnings show that Canadian-bred Shorthorns are able to hold their own in the strongest of competition.

A Gordon, Chatham, R. R. No. 1, is offering three Clydesdale stallions and six mares. The advertisement appears elsewhere in these columns.

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.

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

umber selling is fifty head. There y three bulls in the offering. All s for catalogues should be made . Sager, St. George, Ont., Secretary

Cheese Markets
York, specials, 32c. to 32 1/2c.; e run, 31 1/2c.; Montreal, finest s, 24c. to 25c.

Maple Evaporator
Simple to operate, make of first quality material. Every one guaranteed. Price so moderate that any one can buy.
The Steel Trough Machine Co., Limited
145 Jarvis Street, Tweed, Ont.

THIS WASHER MUST PAY FOR ITSELF

A MAN tried to sell me a horse once. He said it was a fine horse and had nothing the matter with it. I wanted a fine horse, but I didn't know anything about horses much.

And I didn't know the man very well either. So I told him I wanted to try the horse for a month. He said "All right, but pay me first, and I'll give you back your money if the horse isn't alright."

Well, I didn't like that. I was afraid the horse wasn't "alright" and that I might have to whistle for my money if I once parted with it. So I didn't buy the horse, although I wanted it badly. Now this set me thinking.

You see I make Washing Machines—the "1900 Gravity" Washer.

And I said to myself, lots of people may think about my Washing Machine as I thought about the horse, and about the man who owned it.

But I'd never know, because they wouldn't write and tell me. You see, I sell my Washing Machines by mail. I have sold over half a million that way. So, thought I, it is only fair enough to let people try my Washing Machines for a month, before they pay for them, just as I wanted to try the horse.

Now, I know what our "1900 Gravity" Washer will do. I know it will wash the clothes, without wearing or tearing them, in less than half the time they can be washed by hand or by any other machine.

I know it will wash a tub full of very dirty clothes in six minutes. I know no other machine ever invented can do that without wearing the clothes. Our "1900 Gravity" Washer does the work so easy that a child can run it almost as well as a strong woman, and it doesn't wear the clothes, fray the edges nor break buttons, the way all other machines do.

It just drives soapy water clear through the fibres of the clothes like a force pump might. So, said I to myself, I will do with my "1900 Gravity" Washer what I wanted the man to do with the horse. Only I won't wait for people to ask me. I'll offer first, and I'll make good the offer every time.

Let me send you a "1900 Gravity" Washer on a month's free trial. I'll pay the freight out of my own pocket, and if you don't want the machine after you've used it a month, I'll take it back and pay the freight, too. Surely that is fair enough, isn't it?

Doesn't it prove that the "1900 Gravity" Washer must be all that I say it is? And you can pay me out of what it saves for you. It will save its whole cost in a few months in wear and tear on the clothes alone. And then it will save 50 to 75 cents a week over that on washwoman's wages. If you keep the machine after the month's trial, I'll let you pay for it out of what it saves you. If it saves you 60 cents a week, send me 50¢ a week till paid for. I'll take that cheerfully, and I'll wait for my money until the machine itself earns the balance.

Drop me a line today, and let me send you a book about the "1900 Gravity" Washer that washes clothes in six minutes.

Please state whether you prefer a washer to operate by hand, engine, water or electric motor. Our "1900" line is very complete and cannot be fully described in a single booklet. Better address me personally, C. J. Morris, "1900" Washer Company, 357 Yonge Street, TORONTO.



Our "Gravity" design gives greatest convenience, as well as ease of operation with quick and thorough work. Do not overlook the detachable tub feature.

Farming as a Business.

EDITOR "THE FARMER'S ADVOCATE":

A farm survey conducted a short time ago by the Ontario Agricultural College at Guelph, proved that farming on a small scale was generally unprofitable. A similar survey in Ohio has shown the same result. The following are a few reasons why small farming does not pay well: It has been estimated that it takes the product of five acres to keep a horse a year, and farm horses are used very little in winter. In the case of the one-man farm the horses are idle much of the summer and fall as well, because the farmer has other work to do, especially at threshing and silo-filling time. The small farm cannot afford a full line of labor-saving implements, and what is kept is not used as much as it could be. For example, a grain binder on a small farm could do three times as much cutting as it has to do.

If small farming is not generally a paying proposition, what is the remedy? There is no one scheme that could be of use under all circumstances, but for discussion we will take a special case. Suppose a half dozen level farms of rich soil, all situated close together, are owned by progressive farmers who are willing to co-operate. They may co-operate in several different ways, but the most complete way is to form a company. Almost all other paying enterprises are managed by corporations. In the first place, each farmer would reserve his garden, poultry and what live stock he needed for his own use. All the rest of his farm property would be valued and become a part of the company's property for a term of years agreed upon. The profits of the company would be divided according to the value of each man's property. A manager would be elected each year from among themselves, care being taken that the most capable man was chosen.

Tractors would take the place of horses as far as possible. It has been proven that tractors, provided they are kept busy, work more economically than horses. On a very large farm a man and tractor can be kept busy nearly all the time during spring, summer and fall. By having so much land to work under one manager it would be possible to remove most of the cross fences, thus making the fields large. Every suitable form of farm machinery that they did not possess would be purchased. The company's cows would be kept in one or two stables and milked by milking machines. The stables on the other farms would be kept for the other live stock. In the fall the threshing would be done by a small-sized threshing outfit driven by the tractor. The company would do all the buying and selling, including the shipping of its own live stock and the buying of household supplies.

Each farmer should be paid the same wages and the profits would probably be divided each spring, as that is the time of year when the farm products have been pretty well disposed of. If the company makes an average annual dividend of seven per cent. or more on the capital after paying wages and all other expenses, it would be considered a success. If the average rate of dividend were less than that on Victory Bonds it would be considered a failure. The amount of the dividend in any one year might be deceptive on account of crops being poorer or better than the average and expenses being less or greater than the average.

The company scheme may not be practical in many districts on account of local conditions, or the reluctance of the farmers to co-operate. However, some of the suggestions could be used to advantage almost anywhere.

But there are other farm losses that are not due to lack of co-operation.—Hens that fail to lay in winter when the price of eggs is highest. Cows that are dry for a long time in winter when the price of butter is highest. Feeding scrub and stunted live stock. Working land too poor or rough for anything but pasture, neglecting to use formalin solution on grain to prevent smut. Depending too much on growing but one kind of crop, which increases the risk in farming. Leaving the implements out in the weather all the year round. Lack of capital which forces the farmer to sell his products when the market is not at its highest. I have known farmers who managed their business so skillfully that they seldom suffer loss from the causes mentioned in this paragraph.

The pencil and pen are the least used

Spoiled Cakes Cost Money

Flour, eggs, milk, butter and sugar are high in price. A spoiled cake or batch of biscuits costs money.

To make sure of baking success use pure, strong, double-acting

EGG-O Baking Powder

The heavy Government Standard flours need the strength of Egg-O to make a light baking. Egg-O has two actions. It rises in the mixing bowl when cold water or milk is added and continues to rise in the heat of the oven, thus making a light cake doubly certain.

You can use sweet milk, sour milk, buttermilk or water with Egg-O—a different and better baking powder.

Egg-O Baking Powder Co.
Limited
Hamilton, Canada



THE MENIE DISTRICT AYRSHIRE BREEDERS' CLUB

Will Sell FIFTY HEAD of

Registered Ayrshire Cattle

at Windsor Hotel Stables, Campbellford,

THURSDAY, APRIL 3rd, 1919

The sale consists of 40 females and 10 males; 25 of the females due to freshen around sale date. In the offering is the progeny of such sires as Hillside Peter Pan, White Duke of Springbank, Lochinvar, Oakland Prince Imperial, Auchinbrain Hercules, Maple Crest King, Springhill Cashier and others of equally choice breeding. In the offering are cows with creditable R.O.P. records. Some of them are also show material. Every bull offered is backed by R.O.P. ancestors, some of which run over 10,000 lbs. milk in a year. For catalogues apply to

Alex. Hume, Sales Manager, Campbellford, Ontario or
W. E. Tummin, Crookston, Sec'y and Clerk of Sale.

C. U. Clancy, Auctioneer

Auction Sale of

150 Head Well-Bred Stock

LOCKE & McLACHLIN, Auctioneers, will sell for C. F. JACKSON,
on Talbot Road, 2 miles west of St. Thomas, on

Monday, March 17th, 1919

Twenty heavy horses, from 4 to 6 years old (some matched teams).
Forty dairy cows, Durham and Holstein, new milkers and springers.
Fifty young cattle, Durham. Forty sows and pigs.
An extra fine lot of cows, and in good condition.

REGISTERED O. A. C. No. 72 OATS

These oats took first prize in Field Crop Competition in 1917 and 1918; are grown from hand-selected heads, inspected by the Government before leaving my granary. Germination test 99%. Price \$1.30 per bus. Bags free. Liberal discount to Farmers' Clubs.

W. B. FERGUSON R. R. No. 2, STRATHROY, ONTARIO

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



For Maple Syrup and Sugar

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

Grimm Champion Outfit

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.

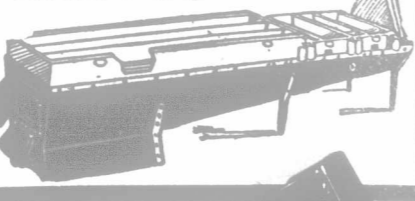
Write

The Grimm Manufacturing Co.
LIMITED

40 Wellington Street

MONTREAL - QUE.

Grimm Champion Outfit



Cakes oney

and sugar are
e or batch of bis-

success use pure,

O powder

ard flours need the
aking. Egg-O has
ng bowl when cold



BREEDERS' CLUB

ire Cattle

3rd, 1919

es; 25 of the females due to
he progeny of such sires as
Lochinvar, Oakland Prince
King, Springhill Cashier and
ng are cows with creditable
terial. Every bull offered is
n over 10,000 lbs. milk in a

bellford, Ontario or
and Clerk of Sale.

Bred Stock

sell for C. F. JACKSON,
St. Thomas, on

th, 1919

(some matched teams).
ew milkers and springers.
Forty sows and pigs.
ood condition.

No. 72 OATS

nd 1918; are grown from hand-selected
Germination test 99%. Price \$1.20

R. No. 2, STRATHROY, ONTARIO

on The Farmer's Advocate.

implements on farms. Most farmers try to keep everything in their mind without writing it down. This is a mistake for, by so doing, it is possible for a farmer to make less than his hired man for several years without realizing the fact. A little wasteful management soon eats up the profits in any business and where no accounts are kept; the trouble is apt to escape notice.

Ontario Co., Ont. N. M.
Note.—While we believe in co-operation, we doubt if the farmers of any one district would be willing to hand over their farms to a manager and they themselves work as hired men. It would be losing that independence so dear to every man. True, under good management and the organizing of the work so as to secure efficient use of stock and implements, the net returns from the respective farms might be greatly increased. Better care of implements, planning a crop system best suitable to the farm, weeding out unprofitable animals, inaugurating a cost system in the business so as to know what each and every department of the farm work was returning, are steps which would, no doubt, lead to greater returns on the individual farms.—Editor.

Gossip.

Waverley Stock Farm's Dispersion.

Horsemen generally are acquainted with Waverley Stock Farm, and its proprietor, Senator Robert Beith of Bowmanville, Ont., is known from one end of Canada to the other. This acquaintance makes it easy to announce the important dispersion sale to be held on Thursday, March 20, when the entire stud of forty registered, imported and Canadian-bred Clydesdales and Hackneys will be passed through the sale ring. Baron's Best, the Highland Agricultural Society first-prize son of the great Baron's Pride, will be sold under the hammer; also some good sons of Baron's Best. The Clydesdale offering comprises a long list of imported and Canadian-bred mares in foal, as well as colts and fillies from imported sires and dams. In the Hackney department there will be led out Terrington Ceteways Imp., also Mainspring 721, a great son of "Terrington". Horsemen will be in a position to purchase at this sale imported prize-winning mares in foal, also colts and fillies of all ages from imported stock. Write the proprietor and get full details regarding the sale on March 20.

The Elder Sale of Shorthorns.

Elsewhere in this issue John Elder of Hensall, Ontario, is advertising his entire herd of pure-bred Shorthorns for public sale on Wednesday, March 19. The sale is a forced one as Mr. Elder has sold his farm and the forty head advertised include a lot of individual breeding cattle that have been profitable and of just the sort that would make splendid foundation material for the beginning of new herds. The families are mostly all a cross of Scotch and English breeding, the breeding cows being "English" and splendid milkers. We are speaking now of the older and more mature cows many of which have, so Mr. Elder informed us, milked upwards of 55 lbs. of milk per day on twice a day milking. The younger breeding cows in this herd are all from these good milkingdams and many are sired by the former noted herd sire Scotch Grey. This bull was from an imported English Lady cow and got by Golden Emir. He was used in the herd for almost seven years and the dozen or more young cows by him which are now being catalogued will be a big feature of the sale. On these Mr. Elder has been using the good, young Nicolson-bred sire, Crown Jewel 42nd. This bull is got by the noted sire, Best Boy, and will be remembered as the top priced calf in the London sale of 1916. There are a number of bulls also listed by this sire, a half-dozen of which are ready for heavy service and about the same number now nearing twelve months. The cattle will be found in a real healthy breeding condition, which should prove an asset to all who purchase on sale day. The score or more of letters from satisfied customers Mr. Elder has received in the past year include breeders from as far west as Vancouver Island as well as several from the eastern provinces and in every case it would seem that the offering has been well received. For catalogue address John Elder, Hensall, Ont.

Massey-Harris

The Harrow that Pulverizes

The Massey-Harris Disc Harrow thoroughly cultivates the soil, pulverizing it into those fine particles which make a seed bed like a garden. Being equipped with Pressure Springs, the Gangs are held to their work on rough and uneven ground, on ridge, and in furrows, so that the entire surface is cultivated. No other implement is as valuable in the preparation of the seed bed as the Massey-Harris Disc Harrow.

The Improved Spring Pressure Device not only ensures the Discs being kept at work in rough and uneven land, but also saves the driver and team from jolt and jar, and saves the machine from breakage when striking obstructions.

The Bearings are provided with Removable Bushings of Oil-Soaked Hard Maple and have Screw Compression Grease Cups.

Low Hitch takes all the weight from the horses' neck.

The Gangs are flexibly mounted on the ends of the Arch and readily conform to uneven surfaces of the ground. One end of either Gang may rise to pass an obstruction while the balance of the Harrow remains at work.

The Angle of the Gangs is readily controlled by a single, easily-operated Lever.

It is strongly built so as to stand the severest strain of discing, and give long service.

The No. 8 has Twelve, Fourteen or Sixteen 16-in. Discs, and the No. 9 has Twelve, Fourteen or Sixteen 18-in. Discs.

See one at the nearest Massey-Harris Agency

MASSEY-HARRIS CO., LIMITED

Head Offices—Toronto, Ont.

Branches at

Montreal, Moncton, Winnipeg, Regina, Saskatoon, Swift Current,
Yorkton, Calgary, Edmonton. Transfer Houses—Vancouver and Kamloops.

Agencies Everywhere

CREAM

PAYS WELL THESE DAYS

We pay express and supply cans.

SHIP YOUR CREAM TO

LINDSAY CREAMERY LIMITED

LINDSAY, ONTARIO

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 Crown).....	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

"Edgegrove" HALLIDAY HOME NO. 18

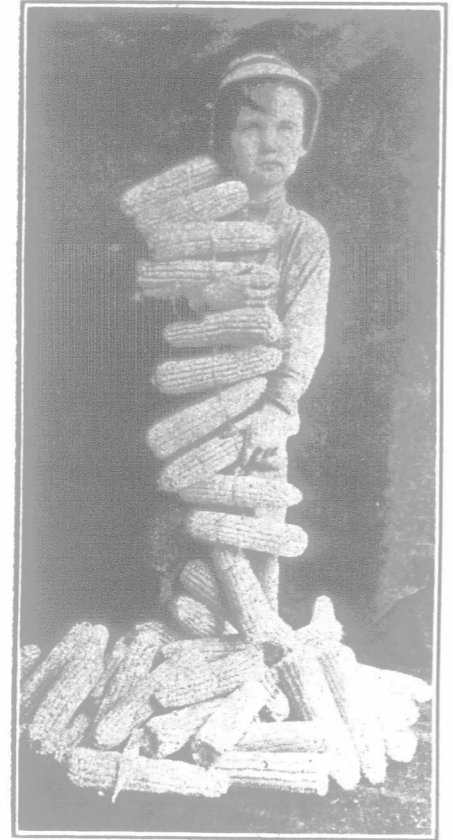


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Save \$75.00 to \$150.00 architect's fees. Get complete Plans, Blue Prints, Detailed Drawings, Working Specifications and Bill of Material, absolutely free of charge—our Catalogue tells how.

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Get your Building Materials direct from the source of supply. We are Factory Distributors of dependable Builders' Supplies, Tools, Hardware, etc. If you are planning any new buildings or if you have old buildings that need repairs or alteration, be sure to get our catalogue before going on with the work.

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Ask for "Catalogue of House Plans and Building Materials." It's free to any interested person. Address:—

THE HALLIDAY COMPANY, Limited
Factory Distributors
Hamilton Canada



SEED CORN Insure your 1919 corn crop by buying your seed corn from the Potter Farm. All corn grown from our own seed. Hand picked from standing stalk. Thoroughly dried in our dryer. Germination guaranteed. Write for prices and particulars. **THE POTTER FARM, Essex, Ont.** R. D. Potter, Mgr. R. R. No. 2

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
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.
R. R. 5

Pure Seed Grain

O. A. C. No. 72 oats \$1.00 per bus.
O. A. C. No. 21 barley \$1.35 per bus.
Japanese Buckwheat \$1.80 per bus. Bags free. We make a specialty of growing pure seed grain.

E. Broderick R. R. No. 1 Exeter
FOR SALE
A limited quantity of home grown Alfalfa and Red Clover Seed. Good and clean. Graded in 30 day days. Price \$26.00 a bushel including bags.

FOR SALE—SEED CORN
Wisconsin No. 7 and White Corn grown in Essex County, \$2.25 per bushel. F.O.B. Essex

D. McNAUGHTON Essex Ontario

Gossip.

Oxford County Holsteins Sell on March 19.

There is still time to write to W. E. Thomson, Woodstock, Ontario, for a catalogue and full particulars regarding the annual spring sale to be held by the Oxford Holstein Breeders' Club, at Dr. Rudd's sale stable, Woodstock, on Wednesday, March 19. Seventy-five head of registered Holstein cattle are to be assembled on that day to be sold at the buyer's own price. Most of the females are fresh or springers. There are about twenty bulls fit for service. The animals have been inspected and satisfaction will be guaranteed. There will be high record makers and the offspring of great producers put into this sale, for the Club is endeavoring to make it the banner event of its kind this season. Write to the Secretary for particulars, and mention this paper.

Messrs. D. Brown & Son, Walnut Grove Stock Farm, Shedden, Ontario, write: "In the last few months we have not had very many males and females of the right age for sale, but as time has passed the later calves of 1917 and the early calves of 1918 have developed into some of the choicest of show and foundation material. Our offering of young stock is from our late great breeding sire, Trout Creek Wonder, a sire which has given the breed a number of champions, and from our noted young breeding bull, Gainford Eclipse, sired by Gainford Marquis and out of the great Avere family which produced the bull Avondale. We are offering young stock from ten to eighteen months of age of the Bruce Mayflower, Kilblean Beauty, Marr Maud, Duthie Rosebud, Strathallan and other popular families. Two sons of Gainford Eclipse, both low-down, mellow, sappy fellows, fourteen and fifteen months old, respectively, are choice herd-header propositions."

Ontario Sheep Breeders Will Again Grade Wool.

Following up their remarkable success of last year in the co-operative grading and selling of wool, the Ontario Sheep Breeders' Association are preparing to extend their operations in 1919. There is no longer any question regarding the advisability of co-operative marketing, and the handsome prices obtained last year will surely give the Ontario Sheep Breeders considerable impetus in their good work. In order to handle the increasing amount of wool, arrangements have been made with the various Agricultural Representatives of the Ontario Department of Agriculture to handle application forms and supplies. Since the grading of wool commences on May 1, all farmers who intend shipping to Guelph should make application to the Agricultural Representative in their county, and supplies will be forwarded at once. Application should be made early so that all supplies may be distributed before May 1, when wool grading begins. Further information in regard to the scheme appears in an advertisement elsewhere in this issue.

Holsteins Will Sell at Ingersoll.

Thursday, March 20, is the day on which W. B. Poole and Alfred Groves will sell forty high-class Holsteins at Ingersoll. A feature of the sale, in addition to the splendid individuality of the offering, is the large number of cows that will be freshening just at sale time. The majority of Mr. Poole's offering will freshen to the service of King Johanna Rauwerd, the son of the former champion R. O. P. cow, Calamity Johanna Nig, while his sire is Hillcrest Ormsby Count, a son of the famous old "Rauwerd," Canada's first 29,000-lb. cow. Mr. Groves has seven mature cows in his consignment, seven two-year-old heifers, four bull calves, and the herd sire Captain Snow Canary Hartog. This bull is a son of Calamity Snow Mechthilde 2nd, the Canadian champion three-year-old, to the R. O. P., which made 1,053 lbs. butter and gave 23,274 lbs. milk. Her R.O.M. record was 32.70 lbs. butter, and her highest milk record for one day was 29 lbs. The four nearest dams of the herd bull offered average over 30 lbs. butter in seven days, and 108 lbs. milk in one day. Catalogues and information can be obtained from W. B. Poole, Ingersoll, R. R. No. 5.

Joseph and His Brethren were Farmers.

The reason we hear more about Joseph than we do about his brethren is because he put by his substance in the seven fat years, and his brothers didn't.

The farmers of Canada are in for seven fat years, and they deserve it. And many of them—the wise ones—are taking advantage of this prosperous condition. They are laying aside a part of their present earnings to provide for the lean years that are sure to follow soon or late.

A favorite form of investment among farmers is Imperial Endowment insurance. Such an investment encourages systematic thrift. And it enables a farmer to provide for his family in case he should die early as well as for his own old age.

Ask us to send you our free booklet "Penniless Old Men" which tells all about it. A post card will do.

THE IMPERIAL LIFE Assurance Company of Canada
HEAD OFFICE - TORONTO

Branches and Agents in all important centres

War on Tire Prices

Tire prices are steadily advancing. Despite this, we offer you the opportunity of buying new tires at a figure much lower than in 1918. These new tires, at less than the price of seconds, will give more mileage per dollar than any other tires, regardless of price.

BUY BY MAIL!

So confident are we in the value of these tires, we will ship your order to your nearest express office, C.O.D.

Examine the tires carefully; if not exactly as represented, return them at our expense.

Could anything be fairer? Avail yourself of this unparalleled offer.

In ordering state style of tire—"Clincher" or "Straight Wall,"—Plain or Non-Skid.

We pay express charges to all points in Ontario, Quebec and Maritimes Provinces.

SIZE	PLAIN	NON-SKID	SIZE	PLAIN	NON-SKID
28x3	\$11.00	\$13.00	36x4	\$26.00	\$29.20
30x3½	13.45	15.45	38x4½	26.50	34.00
32x3½	14.50	16.70	34x4½	27.00	35.00
31x4	20.20	24.25	35x4½	28.00	33.00
32x4	21.40	25.65	36x4½	29.00	39.00
33x4	22.60	27.10	35x5	29.00	42.50
34x4	23.40	28.10	37x5	35.00	45.00

Special Value, 30x3½ Tubes, fully guaranteed, \$2.50 each.

SECURITY TIRE SALES CO.
Harry C. Hatch, Prop.
516½ Yonge St., Toronto. 210 Sherbrooke St., W., Montreal

BISSELL Double Action Harrows will thoroughly cultivate and pulverize any soil.



One Harrow is Out Throw; the other is In Throw. They are simply constructed, rigid and durable. The Gangs are flexible and the Disk Plates are so designed that they "hang" right into the soil. Bissell Harrows are built in sizes and weights suitable for horse or tractor use. Write Dept. W for free catalogue.

T. E. BISSELL CO., LTD., Elora, Ont.

We have doubled our factory capacity and are determined to supply our customers far and near. See ad. also on page 491.

FOUNDED 1866

The Camper of Maniwek.

BY RALF RANGER.

Things had been going pretty much as usual until he arrived. Our little summer colony on Lake Maniwek—which is "somewhere in Ontario"—had pursued the even tenor of its way until that memorable day which ushered J. Claude Perkins into our midst.

Lake Maniwek is decidedly off the beaten track, a fact which renders our little colony somewhat exclusive, and makes the arrival of J. Claude Perkins all the more remarkable.

When we first sighted Mr. Perkins he was sitting on a steamer trunk in the little clearing on Fox Point, surrounded by bundles, bales and packages of assorted sizes. From our shack we have a good view of Fox Point, and shortly I saw him take a tent, a new tent with pink and white awning stripes, out of its bag. He then picked up a slip of paper and appeared to be reading it intently, after which he put the ridge-pole through the tent. Next he attempted to hoist the tent, but when he tried to raise the hind end the front collapsed, and when he raised the front the hind end came down.

At this stage I reported the proceedings on Fox Point to my old friend Jim Stinson—veteran hunter and camper, and my companion on many arduous trips into the woods before we both reached the age-limit for such strenuous outings.

"A new hand at the game," said Jim, "Let's go over and give him a lift." We paddled over to the point, and beaching the canoe we went up to the stranger who was looking at the flattened tent with a somewhat disgusted expression. As we approached he laid the slip of paper on the trunk, and in answer to our "Good-day" he said, "Allow me to introduce myself," and from a silver card-case he produced two cards which he handed to us. They bore the inscription "J. Claude Perkins."

"Having trouble with your tent?" queried Jim.

"Yes, it is behaving in a rather refractory manner, in fact in a most decidedly refractory manner. But I fancy it is chiefly the fault of the vague and insufficient directions on this slip which accompanied the tent. The language is altogether too technical. It speaks of 'ridge-poles,' 'guys,' 'flies,' 'flaps,' and other things, and as this is my first venture into the wilds, I know nothing of such terms. I have after some cogitation ascertained the identity of the ridge-pole, but the term 'guy' I have been unable to elucidate."

"A guy is a rope," said Jim. "Here you are, here are your two front guys. Now let's give you a hand, and we'll soon have her up". And in about five minutes we had the tent pitched.

I noticed that Jim's eye was running over the tent, and a critical expression was on his face. "Why," he said at length "did you select a pink and white stripe?"

"Well you see," answered J. Claude, "red is the complimentary color to green, the prevailing color of the landscape, but I could not procure a red tent, so I got the nearest I could—pink and white. It seemed to me, too, that it would be more cheerful than plain white."

Jim winked at me, and I heard him mutter "cheerful idiot."

Just at that moment we heard someone approaching, the underbrush parted, and Major Brown, who owns the land which Mr. Perkins has selected for a camp-site, appeared.

Now the Major is really a thoroughly good sort, kind hearted in the extreme, but somewhat bluff, and at times even brusque, in his manner.

The Major looked at the tent, at J. Claude, then turned to us and said "Who's the squatter?" Mr. Perkins drew forth his card-case, and with a bow handed the Major a card. "J. Claude Perkins, eh! Well Mr. J. Claude Perkins what in blazes are you doing here?" J. Claude drew himself up to his full height of his lanky six feet. "The situation, Sir should be plain, but if I must elucidate—I am camping."

"Camping on my land—without even having the decency to ask permission!" "Oh! is this your property," exclaimed J. Claude. "I thought all the land out

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" (13930), 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,) Clarendon, 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.

KNIGHTON LODGE STOCK FARM

Offers for sale two pure-bred Aberdeen-Angus cows, with calves at side, Middlebrook Beauty and Victoria of Larkin 2nd. L. E. & N. cars stop within a few minutes' walk of farm. C. C. KETTLE, Prop., Wilsonville, Ont., R.R. No. 1. 'Phone 2930, Waterford. W. A. Woolley, Manager

SEEDS

Government Standard

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 until next issue of this paper.

Alfalfa—Ontario Variegated \$23.00 grown here in fields, lots of which have been down ten and fifteen years without breaking up.

Red Clover—No. 1.....\$28.00
Red Clover—No. 2.....26.00

This is a good clear grade.

Alsike—No. 2.....18.00
Timothy—No. 2.....7.00
Timothy—No. 3.....6.00

Seed Pea—Golden Vine.....2.50
Flax Seed.....4.00

Bags are 60c. each.

These prices are per bushel, freight paid on purchases of three bushels or over. Cash must accompany order. If seed does not satisfy on arrival ship back at our expense. Ask for samples.

The Caledonia Milling Co., Ltd.

Caledonia, Ontario

Canada Food Board License No. 87

HALDIMAND GROWN

Red Clover Seed

Gov't Standard

No. 1 Purity, No. 1 quality at \$25.00 per bus.

F.O.B. Caledonia Station, G.T.R. bags extra 50c each. Terms—Cash must accompany order. Seed guaranteed satisfactory or return at my expense

HUGH A. ANDERSON

CALEDONIA - ONTARIO

Seeds. A Limited Amount

Red Clover \$26.00 per bus. Alsike \$17.50 samples free. Corn, White Flint \$4.00 per bus. Smoky Dent, early, and a good yielder \$3.00. All home grown and took 1st prize on each at Lambton Winter Fair. Bags free. Also O.A.C. No. 3 Oats, \$1.25 per bus. N. CASCADEN - OIL CITY, ONT.

Kent County Seed Corn

Salyers North Dakota

Address

R. J. WILKIE - Blenheim, Ont.

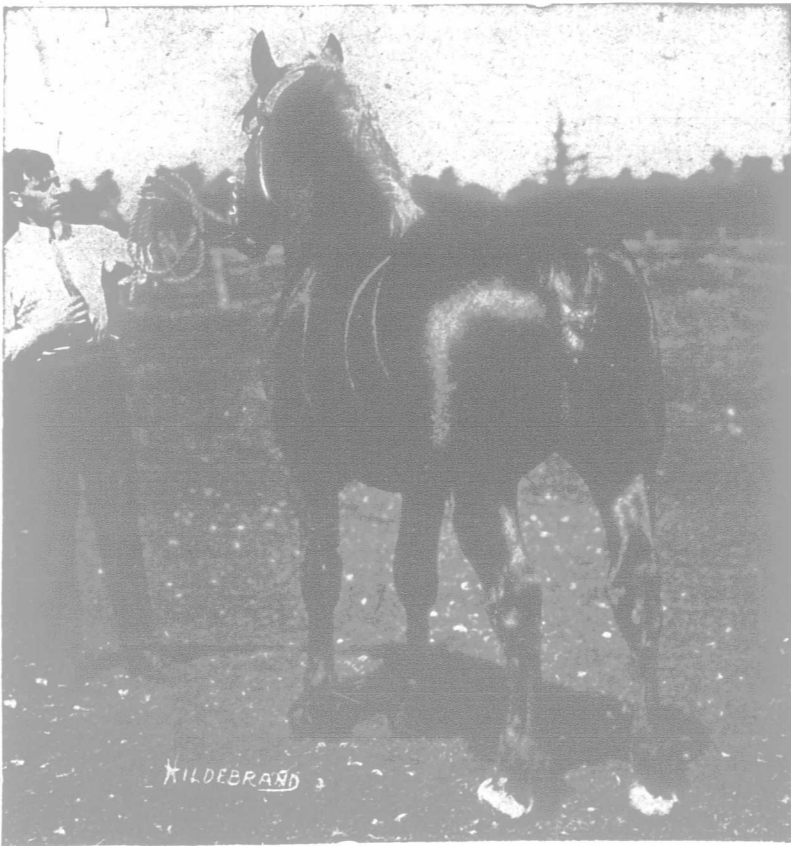
Seed Corn

—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.

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.



Percherons

NEW IMPORTATIONS] STALLIONS & MARES

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.

Hodgkinson & Tisdale BEAVERTON - ONT.

C. N. R., and G. T. R., Railways. Bell Telephone

Farmers.

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Prices

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MAIL!

n the value of these your order to your. e, C.O.D. fully; if not exactly as them at our expense. e fairer? Avail your- eled offer.

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arges to all points in ec and Maritime vinces.

SIZE	PLAIN	NON-SKID
36x4	\$26.00	\$29.20
33x4 1/2	20.50	34.00
34x4 1/2	27.00	35.00
35x4 1/2	28.00	38.00
36x4 1/2	29.00	39.00
35x5		42.50
37x5	35.00	45.00

Tubes, fully guaranteed. 0 each.

IRE SALES CO. Hatch, Prop. 10 Sherbrooke St., W., Montreal

S will thoroughly cultivate and pulverize any soil. t Throw; the other is in simply constructed, rigid Gangs are flexible and designed that they "hang" soil. Bissell Harrows are d weights suitable for horse Write Dept. W for free 98

L. CO., LTD., Elora, Ont.

and are determined to e ad. also on page 491.

**Cheapest !
Whitest !!
Most Sanitary!!!
Acco Whitewash**

Is used in stock yards and by farmers, poultrymen, cattlemen, fruit growers, dairymen, for whitewashing their barns, chicken and fowl houses, stables, dairy houses, sheep and hog pens, house cellars, fruit trees, fences, etc. In fact, everything that you want white and clean. It has been proven that it gives the best results, is the cheapest material on the market to-day. Guaranteed not to flake, peel or rub off. It preserves the timber and makes your buildings stand up in good shape for years. Sold at all seed, hardware and drug stores.

Harold F. Ritchie & Co., Limited
Toronto, Sales Agents

MANUFACTURED BY THE
Acco Chemical Co., Ltd., Toronto

Write for circulars on how to do your whitewashing.

ABSORBINE
TRADE MARK, REG. U.S. PAT. OFF.

Reduces Strained, Puffy Ankles, Lymphangitis, Poll Evil, Fistula, Boils, Swellings; Stops Lameness and allays pain. Heals Sores, Cuts, Bruises, Boot Chafes. It is a SAFE ANTISEPTIC AND GERMICIDE.
Does not blister or remove the hair and horse can be worked. Pleasant to use. \$2.50 a bottle, delivered. Describe your case for special instructions and Dook 5 R free. **ABSORBINE, JR.**, antiseptic liniment for mankind, reduces Strains, Painful, Knotted, Swollen Veins. Concentrated—only a few drops required at an application. Price \$1.25 per bottle at dealers or delivered.

W. F. YOUNG, P. D. F., 258 Lyman's Bldg., Montreal

DR. PAGE'S SPAVIN CURE

Cures the lameness from Bone-Spavins, Side-Bones, Ringbones, Curbs, Splints, etc., and absorbs the bunches, does not kill the hair, absorbs Capped Hocks, Bog-Spavin, thick pastern joints; cures lameness in tendons; most powerful absorbent known; guaranteed or money refunded.

Mailed to any address. Price \$1.00
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The best veterinarians available were engaged for army service. They clipped horses and mules regularly. Just as army horses did their best work when properly clipped, so will yours. Get a clipping machine NOW. You can't beat a Stewart No. 1. Get one from your dealer; if he can't supply you send us his name. Or write for our 1919 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.

CLYDESDALES For Sale

3 Stallions—1 yearling, 1 two-year-old, 1 four-year-old, 6 mares—2 year-old and up, 4 pair coming 3 and 4 matched, 2 in pair. Most of them out of imported mares. Grand winners at Barons Pride. A. GORDON, Chatham, E.R. No. 1, Arkwood Sta., C.P.R.

For Sale—CLYDESDALE STALLIONS

Lachlan Donald (20019), sire of Sir Lachlan (Imp.) (0147) (10499), sire of Walker (20189); black; face, high; legs, light; legs white; foaled May 8th, 1917. Particulars apply to GEO. WALKER, Slayton, Ont. R. R. No. 2.

Aberdeen-Angus

Several young bull and heifers for sale. Bred by "Middlebrook Abbot 2nd" (1st prize in show at Toronto and Ottawa, 1915). Apply to A. DINSMORE, Manager, "Grape Grange" Farm, Clarksburg, Ont. 1 1/4 miles from Clarksburg, G.T.R.

here was just wild land. Pray accept my humblest apologies, Sir, I shall remove immediately."

"Not at all, not at all," said the Major, his indignation vanishing instantly at the other's apology, "Make yourself at home, my boy. And let me know if I can do anything for you."

"You are most kind, Sir, please accept my sincere thanks."

Jim and I departed, and as we paddled across the bay Jim kept muttering "pink and white stripes—complimentary colors—more cheerful—Good Lord!"

The next we heard of J. Claude Perkins was that evening we joined the other campers who had gathered at the Old Portage to await the arrival of the mail-carrier. As we approached we heard sounds of merriment and distinguished the voices of Polly Stillman and the Major, the latter saying, "Well Polly we must see that you get the medal for life-saving."

"What's Polly been doing now?" asked Jim as we landed.

"Heroically, or more properly speaking, heroine-ically, rescuing J. Claude Perkins," said the Major.

"Why, what happened, Polly?"

"This afternoon I had paddled over to the little island off Fox Point, and was sitting in my canoe, reading, when out from the shore of the point came a long apparition in bathing costume—"

"Was it pink and white?" interrupted Jim.

"No, blue with yellow stripes. The apparition carried a pair of waterwings, and when he had waded out into about three feet of water he blew up the wings, adjusted them, and went through some motions which he probably supposed were those of swimming. In some manner the wings became displaced, and slipped too far back, with the result that the would-be swimmer's head and shoulders went under water and his legs in the air. At first I laughed at his ludicrous appearance, but as his struggles became desperate I realized the danger of the situation, and with a few strokes of the paddle I brought the canoe alongside, and seizing his hand placed him "right side up." He had evidently imbibed some copious draughts of Maniwak, and as soon as he had coughed them up, he said, "Permit me to express my sincere thanks. Your arrival was most opportune—I was nearly gone. The directions in regard to these water-wings really should be more explicit, and then he added, "Allow me to introduce myself—J. Claude Perkins—sorry I haven't a card with me at the present moment."

"Friends and fellow-campers," said Prof. Vesey, who is one of the oldest members of our summer colony, "It is quite apparent that we need a new society on Maniwak. We have our Put-out-your-camp-fire Association, our Anti-Fish-Liars League, and our Society for the Suppression of Swell Dressing, but the time has come when a new organization is needed, a Society for the Protection of J. Claude Perkins."

"I think a Society for the Prohibition of J. Claude Perkins would be more to the point," said Jim. "But he needs more than a Society—he needs a nurse!"

At this point the mail arrived, and there was an eager rush to read the headlines of the Toronto papers—"British Break Hindenburg Line"—"French Make 15 Mile Advance"—and then a dispersal to our respective cottages and camps to devour the gratifying details.

Next morning as I was crossing the lake to visit Trout Creek in quest of some of the speckled beauties I saw a canoe adrift. I recognized it as Fred Galwey's canoe, and approached to take it in tow. When I drew near I discovered—lying flat in the bottom—J. Claude Perkins.

As I leaned over him he raised his head slightly and said, "I am greatly relieved by your coming. I have had a most distressing experience."

"Why, what's the trouble?"

"I had read so much of the pleasures of canoeing—the fleet craft that skims the surface of the water like a swallow," and so on—that I resolved to try it. Mr. Galwey was kind enough to lend me his canoe. But I find that the pleasures of canoeing are much exaggerated. I tried to paddle, but at each stroke the canoe tipped so violently that I was in imminent danger of capsizing. So I lay down on the bottom to maintain the equilibrium, and I saw the position of the water-wings as they slipped back, and I am so dizzy that I can't see straight."

He then looked a pile greenish

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IT IS impossible for the Dairy Farmers to blend and balance their stock feeds as they should be to get maximum results.

**CALDWELL'S
CALF MEAL**

is mixed and blended only after hundreds of tests have been made, that is why we are confident as to results. Further, it enjoys the recommendation of leading stock men.

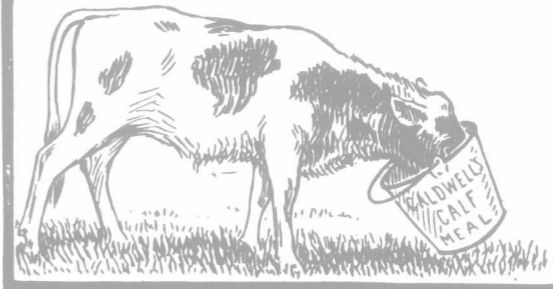
You can therefore sell your whole milk very profitably, and feed your calves Caldwell's Calf Meal. It is a complete substitute for whole milk.

Your dealer most likely carries this meal, if not, we will give you the address of the nearest dealer who does, or ship direct—Write us.

THE CALDWELL FEED AND CEREAL CO., LIMITED

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We operate the largest exclusive feed mill in Canada—and are makers of all kinds of high-grade stock and poultry feeds. We can send you prices and information on any ration you require.

57

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Harness that breaks under strain is a risk to life and limb and besides, it takes time and money to repair it. Get Harness that is "dependable," that holds together and keeps in fine condition under all reasonable circumstances. IMPERIAL BRAND HARNESS is guaranteed free from defect in material or workmanship. We have been in the harness business for 52 years and our goods have always given unqualified satisfaction. Your dealer sells it; if he doesn't, write direct to us—we can supply you promptly. We are manufacturers and can offer a big assortment at attractive prices. Express delivery charges paid at our end.



Special Offer

Our "Buggy Special," No. 104, is a big seller. It is thoroughly STRONG, HIGH GRADE AND FINE LOOKING. We particularly select leather of good weight. Single strap Breast Collar, raised layers; strong Traps; Breaching has side, back and hip straps; Saddle has patent leather skirts and jockeys; padded, leather linings and flexible tree and 1 in. swinging shaft bearers; Lines 1 in. with russet hand parts; Trimmings heavily nicked. Solid Nickel, \$2, extra. Genuine hard rubber \$4, extra. Express prepaid to any station on receipt of price. Guaranteed satisfactory or goods may be returned. Order now

\$28

Samuel Trees & Co., Ltd.
Established 1866. 48 Wellington St. E., Toronto

UNRESERVED AUCTION SALE of Entire Flock of
LINCOLN SHEEP

other stock and implements at River Side Stock Farm, 6 1/2 miles south of Glencoe on

Tuesday, March 25th, 1919, at 12.30 p.m.

1 Imported Stud Ram Cropwell (218) Imp. 34.514, 13 Yearling Rams, 25 Breeding Ewes with a grand lot of February born lambs at side, 5 Yearling Ewes.
The present stock ram Cropwell (218) Imp. is the sire of the 1918-1919 crop of lambs and he has proven himself a good sire.

The Breeding Ewes are nearly all young and a choice lot of ewes. Anyone wishing to strengthen their flock or start a new one would do well to attend this sale.

The farm having been sold they must go to highest bidder.

J. G. Lethbridge & Son, Prop., Glencoe, Ont.

McTaggart and McIntyre, Auctioneers

color, and a he thanked his wobbly As I str I thought Jim and we saw One evening campers—in seemed to a exclaimed "Don't you s There was "It is I," s "So it is in his direct "I must a obnoxious, b eliminated t come accus detect it." "How did queried Galw "I was ou this afterno little black have of late Wildwood I of the Woo other books wild creatu ically before on my campi with some of I have tries chuck, a chi but without was a little without any approached I a handsome b greeting I th it and I am what happ powerful and felt a burnin nose. It ren of a German see once ag ambling que most of my c to burn my scrubbing m the time sinc On the af as Jim and I shack we hea through his s for his cotta Major inform Claude Perki at his tent morning and not there. "I'm migh said turning hand at follow We went o Jim soon pic off into the t We followed a swamp, call but getting n about a bit a straight as a "Pretty run said Jim. "No We followe after going h answer—a fra and J. Clau joyously towa "Oh! my fr saved me. I mare. But death by I was lost, h As we tur "How did you "It's the fau I have always so when I set morning I b not gone far w of my directio to my camp I sulted my c direction of th so that—" "The whitt north. So th trail—in the my advice o case, "Black a man may e matter." "I thank y shall have m My experie as to justic in the wils morning." And he di

color, and after I had towed him ashore he thanked me with a wan smile and made his wobbly way to the tent.

As I struck out again across the lake I thought Jim was right about the nurse, and we saw no more of J. Claude that day.

One evening a few days later when the campers—including J. Claude—were assembled to await the mail Polly Stillman exclaimed "There's a skunk round here. Don't you smell it?"

There was a general sniffing.

"It is I," said J. Claude.

"So it is!" ejaculated Polly, sniffing in his direction.

"I must apologize for rendering myself obnoxious, but I thought I had completely eliminated the odor. I must have become accustomed to it as I cannot now detect it."

"How did you get mixed up with it?" queried Galwey.

"I was out gathering some blueberries this afternoon when I saw a strange little black and white animal. Now I have of late been reading, 'Ways of the Wildwood Folk', 'The Kindergarten of the Woods', 'Brothers in Fur', and other books which bring the lives of the wild creatures so vividly and sympathetically before me, and I had resolved that on my camping trip I would make friends with some of these harmless wild animals. I have tried to fraternize with a woodchuck, a chipmunk and a red squirrel, but without much success. But here was a little animal which seemed to be without any undue timidity. So I approached it and as I did so it waved a handsome bushy tail at me—in friendly greeting I thought. I stooped to stroke it and I am a little bit hazy as to just what happened, but I encountered a powerful and most intolerable stench and felt a burning sensation in my eyes and nose. It reminded me of descriptions of a German gas-attack. When I could see once again the little animal was ambling quietly off up the hill. I put most of my clothes in the lake, but I had to burn my trousers, and I have been scrubbing myself with tar soap most of the time since."

On the afternoon of the following day, as Jim and I were sitting in front of our shack we heard the Major calling to us through his megaphone, and we put off for his cottage. When we arrived the Major informed us that he feared J. Claude Perkins was lost. He had been at his tent three times—twice in the morning and again just now,—and he was not there.

"I'm mighty glad you're here," he said turning to Jim, "You're such a good hand at following a trail."

We went over to J. Claude's tent, and Jim soon picked up his trail, which lead off into the tall timber back of the point. We followed over two ridges and through a swamp, calling and listening repeatedly, but getting no answer. The trail wound about a bit at first and then went as straight as a die.

"Pretty rummy trail for a lost man," said Jim. "Not a turn in the last mile."

We followed the trail into a burn and after going half a mile or so we got an answer—a frantic high-pitched "Hullo!" and J. Claude Perkins came running joyously towards us.

"Oh! my friends, my friends! You have saved me. It has been an awful nightmare. But for you I should have faced death by starvation or from wild beasts. I was lost, hopelessly lost."

As we turned homeward Jim asked, "How did you lose yourself?"

"It's the fault of this fraud of a compass. I have always read that it was injudicious to enter the woods without a compass, so when I set out on a little ramble this morning I brought this along. I had not gone far when I was no longer certain of my directions. I knew that to return to my camp I must go north. So I consulted my compass and followed the direction of the white point of the needle so that—"

"The white point", exclaimed Jim. "Why that's south—the black point is north. So that accounts for your straight trail—in the wrong direction. Take my advice and write on your compass-case, 'Black equals North,' for when lost a man may easily become confused in this matter."

"I thank you for your advice, but I shall have no further need of a compass. My experience in camping are not such as to justify an continuation of my sojourn in the wilds. I return to the city tomorrow."

And he did.

40 EUREKA FARM AYRSHIRES 40 High-Class Registered Animals

To be sold by Auction Friday, April 4, 1919

LOOK AT THEM. SOME OF THE GOOD ONES:

"Spring Hill Cashire" 30592, stock bull for Wm. Stewart for several years; quality guaranteed.

"Eureka Star" has given 7605 lbs. of 4 1/2% milk or 345 lbs. butter-fat in seven months.

"Eureka Stirling" 44864, has given 11,820 lbs. 4% milk in 12 months.

"Eureka Bess," a grand young cow, never beaten at the local fairs, comes of splendid stock.

"Eureka Belle" 45033, has given 11,120 lbs. 4% milk in 11 months.

Sixteen cows and heifers, mostly freshened by April 1st; 1 aged bull; 2 bulls rising 2 years; 4 bulls rising 1 year.

"Humeshaugh Belle," sired by "Scot of Fernbrook"; dam, "Highland Belle." This heifer is splendid type and excellent breeding.

SALE.—To be held at Eureka Stock Farm, near Anson Junction between Stirling and Campbellford.

"May" 34856, an excellent cow, with splendid udder and teats. She has given 65 lbs. of 4% milk per day.

DATE.—April 4th, the day following Menie District Ayrshire Breeders' Sale at Campbellford.

AT 1 P. M.

WM. J. HAGGERTY, Owner,

R. R. No. 3, Stirling, Ont.

C. U. CLANCY, Auctioneer, Campbellford, Ont.

Write for Catalogue

Consignment Sale

Elgin Pure-Bred Holstein Breeders' Club

WILL SELL

55 HEAD 55 HEAD

Registered Holsteins

Thursday, March 27th, 1919

at ST. THOMAS, ONT. in McGuire's Feed Stables, Elgin St.

A large number of these cows have R. O. M. tests and are fresh or due at time of sale. There are a limited number of bulls fit for service, also a few calves. A large number of these cattle are bred to or from such bulls as Idaline Paul's Veeman, Correct Change, Sir Shadeland Segis, Sir Colantha Wayne, King Segis De Kol Calamity, Pontiac Korndyke Plus, and others equally as good. Some are from herds where no testing has been done, but have splendid backing. Here is some of the offering:

Two young bulls with a 24.83-lb. sire; 3 daughters with a 25.47-lb. sire; a herd bull with a 26.76-lb. 3-year-old dam and a 27.28 sire; a cow with a 22.03-lb. 4-year-old record, also her heifer calf; a 24-lb. cow and a 3-year-old daughter of a 102.01-lb. cow; a daughter of a 27.76-lb. cow, and bred to a brother of May Echo Sylvia, the world champion cow. Others with R. O. M. tests or are under test now. No bye-bidding.

Sale under cover. Write for catalogue.

Terms.—Cash or six months at 6% per annum.

D. CAMPBELL, Pres.,
L. H. LIPSIT, Mgr.,
E. C. GILBERT, Sec.

R. R. 8, St. Thomas, Ont.
Straffordville, Ont.
R. R. 7, St. Thomas, Ont.

LOOK FOR EDDY'S NAME ON THE BOX

Whenever you buy matches, see that the name "EDDY" is on the box. It is your best guarantee of safety and satisfaction. More than sixty years of manufacturing experience is back of it.

EDDY'S MATCHES

keep the fires burning in millions of Canadian homes. There is a match for every purpose among the 30 to 40 different Eddy brands. Now that the tax on matches practically doubles their cost, it is more than ever a real economy to see that Eddy's name is on the box.

The E. B. Eddy Co. Limited
Hull, Canada

Also Makers of Indurated Fibreware and Paper Specialties

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.

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743 King Street West
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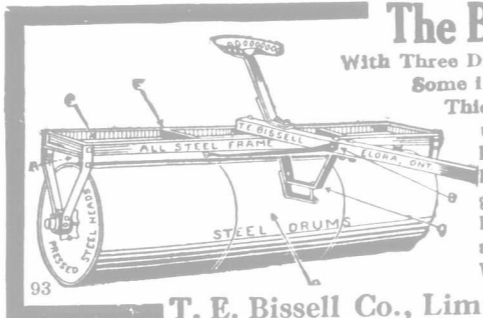
Cream Wanted

Ship your cream to us. We pay all express charges. We supply cans. We remit daily. We guarantee highest market price.

Ontario Creameries LIMITED
LONDON - ONTARIO

The Bissell Steel Roller

With Three Drums and Strong Rigid Steel Frame. Some improvements are: Heavy Steel Axle. Thick, Heavy Steel Plate, Drums Riveted. up to stand any strain, Roller Bearings Runs like a bird. Full particulars free by mail, or ask your dealer. None genuine without the name "BISSELL." Look out for it. This Roller will stand hard work and lots of it. Write Dept. W for free catalogue



T. E. Bissell Co., Limited, Elora, Ont.

We have doubled our factory capacity and are determined to supply our customers far and near. See ad. also on page 488.

by Tests

Farmers to blend as they should be

LL'S REAL

hundreds of tests are confident as to commendation of

whole milk very s Caldwell's Calf for whole milk.

this meal, if not, the nearest dealer

AL CO., LIMITED

Ontario

We operate the largest extensive feed mill in Canada—and are makers of all kinds of high-grade stock and poultry feeds. We can send you prices and information on any ration you require.

57



Special Offer

Our "Buggy Special," No. 104 is a big seller. It is thoroughly PROOF, HIGH GRADE AND LOOKING. We particularly have put extra value into it. Single strap, raised layers; strong Tracop; as side, back and hip straps; patent leather skirts and jockeys; linings and flexible tree and shaft bearers; Lines 1 in. with Trimmings heavily nickled. Extra. Genuine hard pressed prepaid to any price. Guaranteed satisfaction. Returned. Order now

\$28

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llington St. E., Toronto

Entire Flock of SHEEP

Stock Farm, 6 1/2

at 12.30 p.m.

Yearling Rams, 25 Breeding Yearling Ewes. Sire of the 1918-1919 crop of

lot of ewes. Anyone wishing to attend this sale.

Glencoe, Ont.

tioners

Western Ontario SHORTHORNS

Semi-Annual Sale at Fair Grounds
London, Ont., Wednesday, March 26th, 1919



90 Head—25 Bulls, 65 Cows and Heifers

SAMPLE PEDIGREES :

GOLDEN CHIEF			
Red, born April 11th, 1918; bred by Wm. Waldie.			
Bred by	Dam	Sire	Bred by
Wm. Waldie	Butterfly Rosewood	Hillhead Chief (imp.) 101802	A. H. Reid
Wm. Duthie	Trout Creek Rosewood (imp.) = 70847	Roan Chief (imp.) 69865	Earl of Roseberry
Wm. Duthie	Collynie Rosewood 3rd (imp.)	Beaufort Victor = 69851 = (82841)	Lord Lovat
J. Bruce	Rosewood 34th	Nonpariel Courtier (79488)	J. D. Willis
		Clear-the-Way (47604)	A. Cruickshank
TASKAR (Imp.) 122380			
Dark roan, born March 3rd, 1918; bred by J. C. McConnachie.			
A. McConnachie	Baby Clara	Butterfly Baronet (130018)	C. J. Johnstone
J. Calder	Cissy of Ardgargie 2nd	Prince Royal (109740)	J. McWilliam
		Keir Raider (102645)	A. Stirling
AVERNE 21st 133452			
Red-white, born January 1st, 1916; bred by R. & S. Nicholson.			
R. & S. Nicholson	Averne 15th	Best Boy 85552	H. Cargill & Son
Jno. Marr	Averne 12th (imp.)	Merry Hampton (imp.) 36068	John Taylor
Jno. Marr	Averne 11th (imp.)	Aberdeen Bard (70787)	J. Bruce
D. C. Bruce	America	Luxury (74958)	J. Bruce
		Hospodar (51409)	A. Cruickshank
Due to calve at sale time.			
BROADHOOKS LADY			
Red, born October 10th, 1917; bred by J. Gardhouse & Sons.			
J. Gardhouse	Broadhooks Maid	Sultan's Choice 107452	J. Gardhouse & Sons
J. Gardhouse	Red Rose	Prince of Archers (imp.) 60861	G. Morrison
J. Cran	Roan Rose (imp.)	Scottish Prince (imp.) 50999	A. Watson
		Abbottsford 2nd (69838)	Wm. Duthie

Representative selections from the herds of such successful breeders as Wm. Waldie, John Gardhouse & Sons, R. & S. Nicholson, Geo. Gier, J. T. Gibson, Kyle Bros. and others is a guarantee that the offering will be high class.

Cows and heifers that in breeding and quality will improve any herd.

Bulls, in imported and home-bred offerings, include very promising herd bull prospects; some from high-testing dams.

All are sold under a liberal guarantee.

FOR CATALOGUE WRITE

HARRY SMITH, Hay, Ontario, Manager of the Sale

CAPT. T. E. ROBSON, J. W. LAIDLAW, Auctioneers.

LUNCH AT NOON

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.

Varieties of Fowl.

What are the largest and best varieties of poultry for the table? What are the best utility breeds? Which breeds lay the largest eggs? What are the most popular varieties of birds for fancy purposes; also of ducks, geese and turkeys?

Ans.—The largest variety of poultry is the Light Brahma and if you wish to produce Capons they are one of the best meat breeds. The most favored meat breeds are Cornish Games, Dorkings, Sussex and Brahmans, particularly where the Game is crossed with the other mentioned varieties. There are several other breeds but these are more common. For general purpose breeds the most common are Plymouth Rocks, Wyandottes, Rhode Island Reds and Orpingtons. The size and number of eggs depends more on the strain than on the breed. I think there is no doubt but what Minorcas and Brahmans lay the largest eggs and if you consider all strains of a variety perhaps the Leghorns lay the greater number of eggs although there are certain strains of Plymouth Rocks, and so forth, that lay just as many eggs. In fact a Light Brahma in California is reported to have laid three hundred and twenty-five eggs in a year. The most popular varieties for farm work are the general purpose breeds mentioned above and White Leghorns and Anconas. For fancy purposes if we can judge by the entries at the shows, it would be Leghorns, Plymouth Rocks, Wyandottes, Rhode Island Reds and Orpingtons. In Ducks—Pekin, Indian Runner, Rouens. In geese—Toulouse, Embden, African. In turkeys—Bronze and White Holland.

W. R. G.

Veterinary.

Defective Sight.

My one-year-old horse drew a heavy load up a long gangway 3 days ago. I think he strained himself lightly, as he does not seem to see things clearly and is afraid of moving objects ever since. He is improving, but I would like to do something to help him.

A. C. W.

Ans.—It is possible that the excessive exertion caused partial amaurosis, as such conditions are liable to cause partial or complete paralysis of the optic nerve. As he is improving it is quite probable that the will have made a complete recovery by the time you see this. If not you can hasten recovery by giving him 2 drams of *nox vomica* 3 times daily.

Diseased Eye.

Cow became blind of left eye last summer. In early winter the eye began to discharge matter. This continues and the eye has to be cleaned frequently to prevent offensive odor. A lump formed below the ear, discharged pus, but healed and became quite small, but is now again increasing in size. She seems healthy and eats fairly well. Will it be wise to keep her any longer? Will other cattle contract the disease?

A. G. D.

Ans.—The trouble is evidently malignant. An operation by a veterinarian might be effective. He would probably remove the whole eyeball, and open the tumor on the cheek and probably excise it. There is little danger of the other cattle becoming affected. An examination by a veterinarian would determine the advisability of keeping her.

At a recent social gathering the conversation turned on the crowded state of the street cars.

"It is really too bad," remarked a guest, "they pack in the passengers like sardines in a box."

"Your comparison is inapt," retorted a lady, smilingly. "When a box of sardines is full it is full. They don't constantly keep opening the box to pack in a few more."

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Questions and Answers.

Questions asked by bona-fide subscribers...

Miscellaneous.

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cent social gathering the state... turned on the crowded station.

Enlist on Your Side the Spray that Kills

The cost is small. The PROFIT large.

SAVE your crops from disease and pests of the field and orchard.



Free - To help you, we will send free, postpaid, a complete illustrated treatise on Crop Diseases...

B. H. HEARD SPRAMOTOR 5057 King St., London, Canada

Sunnyside Herefords

We have a choice offering in young bulls, some fit for service, also a few females.

Mrs. M. H. O'Neil & Sons Onfield, P.O. - R.R. No. 4, Ontario

Aberdeen - Angus Meadowdale Farm

Alonso Matthews - Manager H. Fraleigh - Proprietor

Springfield Farm Angus

I have six bulls from 8 to 15 months. All sired by Middlebrook Prince 5th, a son of Jock of Glencarns.

Kenneth C. Quarrie, Bellwood, Ont. R.R. No. 5, Bellwood, C.P.R.; Ferguson, G.T.R.

SUNNY ACRES ABERDEEN-ANGUS

The present string of young bulls for sale includes some classy bred prospects, winners themselves and sired by champions.

G. C. CHANNON - OAKWOOD, ONT. P. O. and Phone

Alloway Lodge Stock Farm

Choice heifers bred to Queen's Edward, 1st prize Indiana State Fair. Bulls winners at Western Fair and Guelph.

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

Balmedie Aberdeen-Angus

Nine extra good young bulls for sale. Also females all ages. Show-ring quality.

THOS. B. BROADFOOT - FERGUSON, ONT.

Kennelworth Farm Angus Bulls

The strongest offering we ever had, all are sired by Victor of Glencarn and a number are ready for service. Prices reasonable.

Peter A. Thomson - Hillsburg, Ont.

ABERDEEN-ANGUS

Two Bulls 15 and 9 months, good type and best of breeding, sired by Sentinel of Larkins.

Herbert Copland - Smithville, Ontario Bell Phone, Smithville Central

Questions and Answers.

Miscellaneous.

Tenant Removing Straw etc.

A buys a farm from B, to have possession in March. The tenant sells the straw and also the cedar posts that were piled at the edge of the swamp ready for use on the farm.

Ontario.

Ans.—It is probable that as to the straw the original lease (which we presume was in writing) governs the matter.

Groundhog.

- 1. Does the groundhog belong to the same family as the bear? 2. What family does the porcupine belong to? 3. Do racoons hibernate singly or several together? E. B.

Feed For Cows on Record.

What are the milk records of some of the champion Holsteins? What amount of feed does a cow eat when on test?

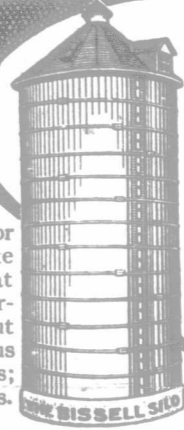
Ans.—Records are continually being broken. We might mention what cows which have been champions in their day have done.

What are the milk records of some of the champion Holsteins? What amount of feed does a cow eat when on test? When do the registrations of Holsteins commerce? A. S.

Gossip.

We herewith draw attention to Ira Minor & Sons' sale of forty Scotch Shorthorns, on Thursday, March 20. In the offering are twenty-one cows, most of which have calves by their sides, and also a number of choice young heifers and six young bulls of serviceable age, by imported sires.

BISSELL SILOS

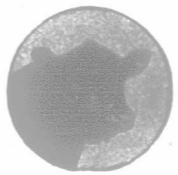


The Silo increases fodder value 40%, and saves one-third of other feeds. With a Silo you can give your cattle green feed in winter, and when a drought comes in summer, Silage stimulates and aids digestion, and assimilation of food, increasing flesh and fat.

Our Silos are made of Pine or Spruce Staves preserved in creosote oil; steel splines; steel hoops, large at bottom; doors on two step plan, airtight; roof of "Barrett" roofing, cut into right size sections. Consult us freely as to particulars. All sizes; prices on request. Write for folders.

T. E. BISSELL CO. LTD., 10 Mill Street, ELORA, ONT.

LARKIN FARMS Queenston, Ontario ABERDEEN ANGUS and JERSEY CATTLE SHROPSHIRE and SOUTHDOWN SHEEP Correspondence and Inspection Invited (Please mention "Farmer's Advocate")



BOYS and GIRLS Get started on the right foot by getting the opinion of the Junior Feeding Contest at the Chicago International was an Aberdeen-Angus. It won \$300 in cash and two medals. The Texas, Mississippi, Iowa, and Wisconsin state contests, as well as the Sioux City Inter-State Fair and the Illinois-Indiana fair contests have been all won by calves sired by Aberdeen-Angus bulls.

ELM PARK ABERDEEN-ANGUS I am offering a complete graded show herd; also bulls and females of different ages, in good breeding condition. JAMES BOWMAN, Elm Park, Guelph, Ont.

Brookdale Herefords

A few choice bulls of Bonnie Ingleside 7th, Dock Publisher & Beau Albany, breeding from seven to eight months of age. No females to spare at present. W. READHEAD, Milton.

6 BULLS BY ESCANNA FAVORITE

A son of the famous Right Sort (imp.). All are ready for service and priced to sell. We have others younger and could spare a number of young cows calving early to the service of the same sires. Write, don't delay. W. G. GERLIE, C.P.R. Station on farm, Bell Phone Bellwood, Ontario.

Shorthorns Landed Home - My last importation of 60 head landed at my farm on June the 20th, and includes representatives of the most popular families of the breed. There are 12 yearling bulls, 7 cows with calves at foot, 24 heifers in calf, of such noted strains as Princess Royal, Golden Drop, Broadhooks, Augusta, Miss Ramadan, Whimpe, etc. Make your selection early. Geo. Isaac (All railroads, Bell phone) Cobourg, Ontario

Creekside Scotch Shorthorn Heifers

A select lot with the choicest of breeding, (reds and roans). Several of these are bred to my present herd sire Gainford Count a Stamford-bred son of the great Gainford Marquis (imp.). The prices quoted on these are right. I have only two bulls left that are old enough for service. GEO. FERGUSON, Elora, Ontario.

Spring Valley Shorthorns - Herd headed by Sea Gem Pride - 96365 - Present offering includes two real herd leaders. One imported in dam, the other by Sea Gems Pride and from a show cow. A number of other good bulls and a few females. Write for particulars. Telephone and telegraph by Ayr. KYLE BROS., R. 1, 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 purple. WM. SMITH, COLUMBUS, ONT. Myrtle, C.P.R.; Brooklin, G.T.R.; Oshawa, C.N.R.

PINEHURST R. O. P. DUAL-PURPOSE SHORTHORNS

Herd headed by "Burnfoot Champion" - 106945 - whose dam holds the two year old record of Canada, and his dam on sire's side has an R.O.P. record of 13535 lbs of milk and 540 lbs of fat. "Buttercup" - 111906 - has just completed her test in 4 year old form with 16596 lbs of milk in twelve months. Could spare a couple of females. Visitors welcome to the farm at any time G. W. CARTER, Pinehurst Farm, Ilderton, Ont.

SHORTHORNS, CLYDES

Have a few choice bull calves left. See these before buying elsewhere. Also six Clyde Mares and fillies rising one to 6 years of age. Each by imported sire and dam. WM. D. DYER, R. No. 3 Oshawa. 2 1/2 miles from Brooklin, G.T.R., 4 miles from Brooklin, C.N.R. or Myrtle, C.P.R.

Shorthorns - Herd headed by Victor Stamford 95959, and Master Marquis 123326, a great son of Gainford Marquis. I now offer for sale my stock bull, Victor Stamford, which has proven himself quite equal to his great sire, Mildred's Royal 45353. Also young Shorthorns of either sex, Oxford Down ewes and ewe lambs, a 3-year-old Clydesdale stallion, and Scotch Collie pups. GEO. D. FLETCHER, R.R. 1, Erin, Ont. Erin Sta., C.P.R. L.-D. Phone.

WILLOW BANK STOCK FARM

SHORTHORN CATTLE and LEICESTER SHEEP. HERD ESTABLISHED 1855—FLOCK 1848. The great show and breeding bull, Browndale - 80112 - by Avondale, heads the herd. Extra choice bulls and heifers to offer. Also a particularly good lot of rams and ewes all ages. Imported and home bred. JAMES DOUGLAS, CALEDONIA, ONTARIO.

Beach Ridge Shorthorns and Yorkshires - Shorthorn herd headed by Sylvan Power 95871, 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, ONTARIO

WALNUT GROVE STOCK FARM Established 1840. Gainford Felipse and Trout Creek Wonder 2nd in Service. We are in a position to supply bulls and females of the best scotch breeding fit for either show or foundation work. We invite inspection of cattle. Write your wants. D. Brown & SONS, SHEDDEN, ONT. Long Distance Phone. Twelve miles west of St. Thomas. P. M. M. C. R.

Southview Farm Shorthorns

Herd headed by Victor Bruce, a Miss Syme by Victor. Still have two bulls of serviceable age, by former herd sire Secret Champion. Can also spare a few heifers by this sire and bred to Victor Bruce C. J. Stock (Tavistock 1 mile) Woodstock, Ont., R.R. No. 6.

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Fertilizers
For Profit

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Ontario Fertilizers
Limited
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Calf
Enemies

WHITE SCOURS
BLACKLEG

Your Veterinarian can stamp them out with **Cutter's Anti-Calf Scour Serum** and **Cutter's Germ Free Blackleg Filtrate** and **Aggressin**, or **Cutter's Blackleg Pills**.

Ask him about them. If he hasn't our literature, write to us for information on these products.

The Cutter Laboratory
Berkeley, Cal., or Chicago, Ill.
"The Laboratory That Knows How"

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 - PORT PERRY, ONT.
R. R. No. 5

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.

Maple Leaf Farm Shorthorns—A high quality Miss Ramsden bull calf and Scotch bred females for sale. Shropshires—Some good ewe lambs. JOHN BAKER, R. No. 1, Hampton, Ont. Bell phone. Solina, C. N. R.; Bowmanville, G. T. R. and C. P. R.

SHORTHORNS

Two young cows and two bull calves 9 months old, all bred direct from (imp.) stock, will be sold at prices that will please the buyer.
L. K. WEBER - Hawkesville, 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

One Registered Shorthorn Bull

for sale 11 months. A good red in color. Bred right and priced right.
F. P. REILEY - PRICEVILLE, ONT.

RED PRINCE

A two-year-old Shorthorn bull, sired by Lavender Sultan. Apply to
A. J. FOX, Harron, Ont., R. R. No. 3

Questions and Answers.
Miscellaneous.

Ferrets.

Where can I secure a pair of ferrets?
M. E. G.

Ans.—We do not know of any breeder having ferrets for sale at present. If you would make your wants known through the medium of the "Want and For Sale" columns of "The Farmer's Advocate," we feel satisfied you would get results.

Sidebone.

Will small sidebones on the outside of each front foot interfere with the horse's usefulness? The colt is not lame yet, but is there any danger of this causing lameness? Would a horse with sidebones pass as sound?
J. J.

Ans.—Sidebones are generally classified as an unsoundness, and there is danger of them causing the horse to go lame. It is one of the bone blemishes which it is not always easy to detect, but it is considered serious by most horsemen.

Miller's Toll.

What toll can a miller take in the custom grinding of wheat? Is there any amount set by the Government?
A. S.

Ans.—We have written the Department of Trade and Commerce, at Ottawa, and the Deputy Minister replied as follows: "As I understand it, the practice now is for the farmer to sell his wheat to the miller, who supplies him in place thereof with flour; so this matter of taking toll does not prevail to any extent. However, where an arrangement is made the following seems to be the prevailing one: On 60 lbs. of wheat the following is supplied: 40 lbs. of 74 per cent. flour; 6 lbs. of shorts, and 4 lbs. of bran, the miller taking 10 lbs. for gristing or toll.

Buff Leghorns.

Where can I secure Buff Leghorn cockerels? Would Rhode Island Reds be good crossed with Buff Leghorns?
H. S.

Ans.—The Reds and Leghorns might cross all right, but we prefer to keep the breeds separate. We believe that better results will be obtained in the end by so doing. We do not know where the Buff Leghorn cockerels could be secured at the present time. A small advertisement placed in our poultry columns would undoubtedly bring you results. It is a medium through which the purchaser and seller can get together. We do not notice any Buff Leghorns advertised at present.

Weak Legs in Fowl.

I have pullets confined in a light, airy, dry house, on a ground floor. They are fed on barley and wheat in the morning, boiled oats at noon, and corn at night. Some of the hens have lost the use of their legs. One bird has nearly recovered and one has died. What is the cause and remedy?
R. M.

Ans.—The trouble described is not thoroughly understood but is fairly common in the approach of spring and is frequently termed "spring complaint." It is usually associated with birds that have been fed heavily and have not laid extremely well during the winter. Give the birds a dose of salts, about a teaspoonful each, and open the doors so that they can get outside. If there is snow on the ground put a little straw on it and they will usually come all right of their own accord.
W. R. G.

Hairless Pigs—Thrush.

1. What is a cure for thrush in pigs? They look healthy when they arrive, but die in a few hours. Is this due to too much heavy feed?
P. L. G.

2. What is a cure for thrush in horses?
P. L. G.

Ans.—1. In our issue of January 2, in an article entitled "Winter Care of Pregnant Sows," the subject of hairless pigs is fully discussed. In this article it is shown that frozen wheat, or the feeding of too heavy a barley ration, is believed to cause the trouble. Too heavy feeding and lack of exercise also tends to cause this abnormal condition. Lack of mineral matter in the feed will lead to trouble in the litter. It is believed that the trouble can be largely eliminated by the proper care of pregnant sows.

2. It may be necessary to pare out the dead hoof around the frog and then, after cleaning out the foot, use formalin or calomel.

Easy to Handle



H. F. BAILEY & SON
The Milking Machine Specialists
GALT, ONT.

Our Milker Book, containing over 50 photos from life, has been the source of guiding many dairymen to make the correct choice. We would be pleased to mail same to you.

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, See-a-fat and Cotton Seed Meal.

GARDINER BROS., Feed Specialists, SARNIA, Ont. 15

Dual-Purpose Milking Shorthorns

Herd headed by Dominator 106224 whose two nearest dams average 12,112 pounds of milk in a year. Cows in the herd with records up to 13,801 pounds of milk. To make room for the natural increase in the herd several cows and heifers in calf to Dominator must be disposed of, and are priced to sell. Have a roan bull 12 months old and a red bull 6 months old by our herd sire and out of our best cows. Inspection of herd solicited.

Weldwood Farm Farmers Advocate
LONDON, ONTARIO

Imported Shorthorns

SIREN IN SERVICE;

Imp. Collynie Ringleader (Bred by Wm. Duthie)	Imp. Clipper Prince (Bred by Geo. Campbell)	Imp. Orange Lord (Bred by Geo. Anderson)
--	--	---

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.

Highland Lake Farms

For Sale: Two extra good (30-lb.) thirty-pound bulls ready for heavy service. Priced to sell. Also younger ones by a son of May Echo Sylvia.

R. W. E. BURNABY - JEFFERSON, ONT.
Farm at Stop 55, Yonge St. Radial

Robert Miller, Stouffville, Ontario

Has EIGHT of the best young bulls that he had owned at one time, good ages and beautifully bred. Also several cows and heifers, some of them with calves at foot, others in calf to Rosemary Sultan, the Grand Champion bull at head of the herd. Everything of Scotch breeding. The prices are very reasonable, and though the freight is high, it will be paid.

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, ONTARIO
R. R. No. 1

Shorthorn Bulls and Females

Herd headed by Ruby Marquis, a son of the great Galford Marquis (imp.). Our 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.

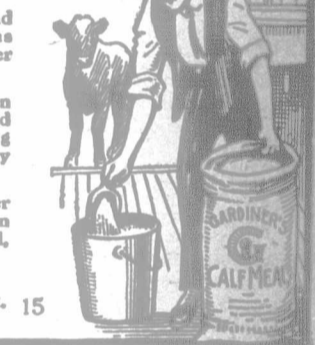
PRITCHARD BROS., R.R. No. 1, Elora, Ont.

Handle

Book, containing over 50
n life, has been the source
many dairymen to make
correct choice. We would
leased to mail same to you.

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Feed MEAL



g Shorthorns

se two nearest dams average
herd with records up to 13,801
al increase in the herd several
disposed of, and are priced to
red bull 6 months old by our
of herd solicited.

Farmers Advocate

Shorthorns

Imp. Orange Lord
(Berd by Geo. Anderson)

ported females with
ne-bred females, 19
, all of serviceable
and see the herd.

Freeman, Ontario
Phone Burlington.

e Farms

s ready for heavy service. Priced
f May Echo Sylvia.
JEFFERSON, ONT.
Radial

le, Ontario

time, good ages and beautifully bred.
ot, others in calf to Rosemary Sultan.
Scotch breeding. The prices are very

pped Shorthorns

ready for service. Two are by Raphael
and several by our present herd sire.

FREEMAN, ONTARIO

headed by Ruby Marquis, a son of
great Gainford Marquis (Imp.). Our
few females in calf to him. Get our
ROS., R.R. No. 1, Elora, Ont.



Windsor Dairy Salt
Made in Canada
THE CANADIAN SALT CO. LIMITED
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Ring-Bone

There is no case so old or
bad that we will not guarantee
Fleming's
Spavin and Ringbone Paste
to remove the lameness and make the horse go
sound. Money refunded if it ever fails. Easy
to use and one to three 45-minute applications
cure. Works just as well on Sidebone and Bone
Spavin. Before ordering or buying any kind
of a remedy for any kind of a blemish, write
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Fleming's Vest Pocket
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Ninety-six pages of veterinary information,
with special attention to the treatment of blem-
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Make a right beginning by sending for this
book.
FLEMING BROS., Chemists
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Breeders of

Milking Shorthorn Cattle,
Belgian Draft Horses
Berkshire Swine.

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

DALTON
Massachusetts

English Dual-Purpose

Shorthorns

For sale: Bull calves and young bulls.
English bred for milk and beef. The right
kind to head Canadian herds to increase
profits. From very moderate prices and
up. English Large, Black Pigs. A
great bacon type, long and deep, thrifty.
Come or write.

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

How E. C. Drury Views the Tariff.

When discussing "Economic Problems" at the last convention of the U.F.O., E. C. Drury, Barrie, Ont., paid considerable attention to the tariff. Owing to the length of his address it was not included in the report of that convention, but we are reproducing the chief features of it here for the benefit of those interested in this perennial question. The manufacturers have made their statement, and it is well to consider both sides. Mr. Drury's arguments follow:

What is the tariff? It is an import tax levied on goods entering a country. Where these goods are actually imported, the amount of the tax goes to swell the revenues of the country, and in this case the tariff is properly a "revenue tariff."

It must be borne in mind, however, that the tax is paid by the people of the country into which the goods enter, and who ultimately consume them, and not by the "foreigners" as the advocates of protection have so often claimed. The price, for instance, of a piece of Scotch tweed in Toronto, will be, to the ultimate purchaser, a sum made up in something like the following matter: Cost of manufacture in Scotland plus freight, plus customs duty, plus reasonable profits, wholesale and retail. That the retail price is actually this we may abundantly verify. For instance, J. J. Harpell, in his book, "Canadian National Economy," published in 1911, gives this instance. In London, England, the price of cement (at the time the book was written) was 80 to 90 cents, freight from London to Montreal 28½ cents per bbl., plus duty 28 cents per bbl. Thus the price in Montreal would be 80 to 90 cents plus 28½ cents plus 28 cents, equals \$1.36 to \$1.45. As a matter of fact, Mr. Harpell found the price in Montreal to be from \$1.35 to \$1.40 per bbl., or exactly as we might expect. However, in the case of the imported article, the tariff tax goes into the national treasury, and if revenue must be raised (as it must) and if we agree that a tariff is a wise way to raise it (a debatable question) we have nothing of which to complain.

However, in the case of the home-made article the situation is slightly different. This article sells for approximately the same price as the imported article, or we would not (as we do) find the two articles selling side by side. If there were no duty, the foreign-made article would sell for just the amount of the duty less, and the home-made article would have to sell for a similar price, or not at all. In the case of the home-made article then, the amount of the duty goes, not to the national treasury, but to the pocket of the manufacturer, and represents either that much extra profit to him, where he is as well situated as his foreign competitor to produce cheaply, or the loss he would be compelled to accept where he cannot manufacture as cheaply as the foreigner. In either case, whether the duty represents an exorbitant profit or merely recoups him for a loss which he would otherwise sustain, the amount of the duty goes to the manufacturer, and not to the national treasury. This is what is called the protective feature of the tariff.

But the protective tariff has other secondary effects which are quite as important as the primary effects. Because it increases the cost of so many articles used by all the people (whether these articles are home-made or imported) it increases the cost of living of all the people. Therefore, the money wages of all workers must be raised to meet the increase. The teacher, the preacher, the doctor, the lawyer, the laborer, the retailer, and all the other classes, must have more money in order to meet the increased cost of the "protected" articles they must buy. They are not any better off in reality, but their money wage is higher. This again increases the cost of their services to each other and to the community, and so the "vicious circle" is started, and the cost of living goes up and up.

But, if there are "protected" industries, there are also industries that are not

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. The pedigrees are full of both English and Scotch blood, and in no herd can there be found more profitable breeders. The breeding cows, many of which are sired by the noted bull Scotch Grey, are all good milkers, a number having given upwards to 55 lbs. per day on twice a day milking. The present stock bull, Crown Jewel 42nd, by the noted Best Boy, was the top-priced calf in the London sale in 1916. All calves selling with their dams are sired by this bull, as are also the 1918 offspring. These include twelve young bulls, all of which are ready for light service. The cattle are selling in good breeding condition. The farm has been sold. There is no reserve. Write for catalogue.

JOHN ELDER,

HENSALL, ONT.

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.

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

Mysies, Rosemarys, 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. Station C.P.R. - C.T.R., Myrtle, Ont.

"DUAL-PURPOSE SHORTHORN BULL"

"Commander" =115964= calved Jan. 20, 1917, dark red, a model for type, sired by Burnfoot Chieftan whose dam gave 13535 lbs. milk in R.O.P., his dam is Jean Maisie giving 7850 as 3 yr. old in R.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 Caledonia trains).

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. Pleased to meet trains at Hagersville, M. C.R., Caledonia, G.T.R.
PEART BROS., Phone 70-16, Caledonia, Ont., R.R. No. 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

Old Reliable Sale

Oxford Holstein Breeders' Club

WILL HOLD THEIR ANNUAL SPRING SALE OF

75 Head of Registered Holstein Cattle

at Dr. Rudd's sale stable, Woodstock, on

WEDNESDAY March, 19th, 1919

Most of the females are fresh or springers. There are about 20 bulls fit for service. All animals have good official breeding, good type, good condition, all inspected and all will be sold and satisfaction guaranteed. As there are some great producers offered, anyone wishing dairy cattle at their own prices should attend this sale as the Club is endeavoring to make this the banner one of the season, come and you will not be disappointed. Write W. E. Thomson, Woodstock, for catalogue.

MOORE, DEAN, PULLIN, Auctioneers

The Manor Farm Consignment

TO THE

Canadian National Holstein Sale

April 10th-11th, 1919

Will include twenty-three daughters of King Segis Pontiac Posch and others. Watch these columns for further particulars.

GORDON S. GOODERHAM, Clarkson, Ontario
FARM ON TORONTO AND HAMILTON HIGHWAY

protected, and cannot be. They are those which are particularly adapted to the country, that produce for more than can be used at home, and hence, the price of whose product is fixed abroad in the world's markets. To these industries the effect of protection is disastrous. The cost of production in these industries is increased, not only by the higher price of the protected articles used in the industry, but by artificially high wages and salaries of all other classes. As a result these industries cannot pay as high wages to those employed in them, or as high interest on capital invested, as the other "protected" industries. Hence, they are retarded in their development, and we may even find them retrogressing. The net effect of protection then is to encourage those industries which are less suitable to the country, and to discourage those which are more suitable, or in other words to encourage those industries where a unit of labor produces the least, and to discourage those where a similar unit produces most.

I trust you will forgive me for this somewhat lengthy discussion of economic theory. "We are discussing a condition, not a theory," as our protectionist friends say, but sometimes it is necessary in order to understand a condition to understand also the underlying theory. Mr. Parsons, late President of the Canadian Manufacturers' Association, has assured us, in a speech given before that body, and widely published by it at great expense, that "speaking broadly, Canada must choose between a tariff with manufacturers on the one hand, or free trade with-out manufacturers on the other: the issue cannot be dodged and should not be clouded." There never was a more humiliating confession made by the president of a great organization in the time of his country's need. It means that, after all these years of help for our "infant industries" they cannot make things as cheaply for our own people as these things can be bought abroad, that

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 and 785 lbs. of milk in 7 days. These youngsters are all first-class individuals, and their dams' records run as high as 33.29 lbs. of butter in 7 days. Several of them must go quick to make room.

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). Nothing offered that is not from high testing dams. Inspection invited. Write for particulars.

Jos. Kilgour, Eglinton P.O., North Toronto.

ORCHARD LEIGH HOLSTEINS

Present offering—3 young bulls ready for winter service. Good individuals with good R. O. M. and R. O. P. backing. Also one good March calf. Write or better come and see them.

JAS. G. CURRIE & SON, (Oxford County) Ingersoll, Ont.

RIVERSIDE HOLSTEINS—CHOICE BULLS

We have several 10 months old, from dams with official records up to 100 lbs. of milk per day and 32.32 lbs. of butter in 7 days. These are well marked and straight individuals. Inspection invited.

J. W. RICHARDSON, Caledonia, Ont.

Alluvialdale Stock Farms Offer For Sale

Two young Registered Holstein bulls fit for service. Dams official tested of Johanna strain, sire Sir Gelsche Walker whose 7 nearest dams average 30-lb. butter in 7 days. Write for price and pedigree.

T. L. Leslie

Norval Station, Halton County, 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

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. We also have some richly-bred young cows due to freshen soon to offer. Write us what you want, or better come and see them.

JACOB MOGK & SON, R.R. 1, Tavistock, Ont.

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, the dam of two champions in 7-and-30-day tests. We invite inspection, and will meet prospective buyers at G.T.R. or C.P.R. stations—Woodstock or Ingersoll.

Watson Rivers & Sons (Phone 313 L. Ingersoll, Independent Line), R.R. 5, Ingersoll, Ont.

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Better Farm Homes

Cheerful and Comfortable Rooms

One Beaver Board room in the house and you'll want more. For the new home, for remodelling or repairing, the use of this knotless, crackless manufactured lumber will settle the question of walls and ceilings once and for all time.

With different effects in each room, ranging from contrasting panels to the delicate effects in bedrooms, there are no limitations when you choose Beaver Board instead of lath and plaster.

Beaver Board is real lumber, built up of pure spruce fibres, ready to be nailed on the studding of new buildings or right over old cracked and papered walls.

Your home can be made permanently beautiful with Beaver Board. See the Beaver Board dealer near you. Write for our book "Building More Comfort into the Farm Home."

THE BEAVER CO., LIMITED

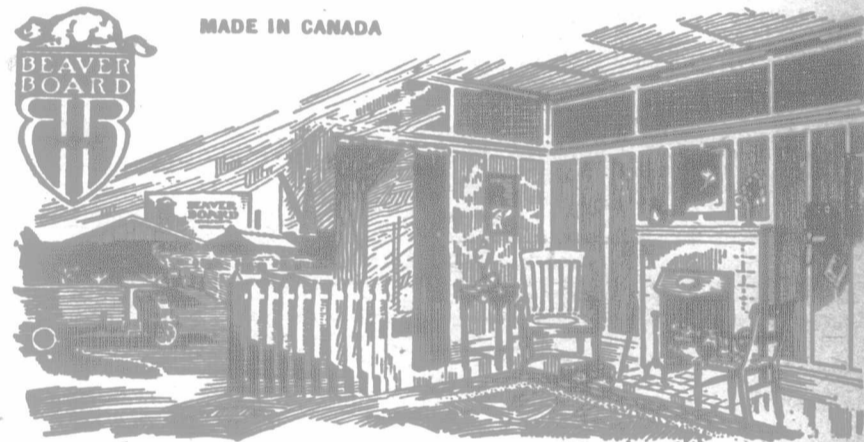
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MADE IN CANADA



R. Laidlaw Lumber Company, Limited, Toronto.

R. Laidlaw Lumber Company, Sarnia.

Geo. H. Belton Lumber Company, London.

Guelph Lumber Company, Guelph.

Windsor Lumber Company, Windsor.

they, close to the consumer, must be allowed to charge, 20, 35 or 40 per cent. more than the manufacturer in England charges after paying the freight across the ocean, and to the point of consumption. It means that, when every hand in Canada should be turned to the most profitable industry in order to meet our immense obligations, these industries must not be expected to help pay our debt with goods, but must actually be allowed to tax other self-sustaining industries, to be a clog to our endeavor to pay our debts. However, enough "interested sophistry" is evident in the rest of Mr. Parsons' speech to make us take even this statement with more than the proverbial grain of salt. Let us examine actual conditions as far as we can.

I believe it is pure "bosh" to say that under Free Trade manufacturers in Canada would cease. There may be some, for which the country is unsuited that might be forced to close down, but of these few we would be better rid, since it is obvious that they are now operated at a loss which they avoid only by shifting it to the shoulders of the consumers. To say that manufacturing cannot be carried on in a country such as Canada, where there are almost unlimited stores of various raw materials, limitless water-power easily transmitted in the form of electricity, and a virile and resourceful population, and where living, under free trade conditions would be cheaper and more abundant than in almost any other place on the globe, is on the face of it, ridiculous in the extreme. Mr. Parsons, of course, would not admit it but the fact is, our manufacturers do not want lower tariff because they would be forced by it to forego unusual profits, to squeeze the water out of their concerns, and to give up the advantages which they have attained through mergers and combines, in the control of the market. Let us look at one or two cases. In Blue-Book No. 39 of the year 1909, we find on record what we may well believe is a

BOARD
& CEILINGS

Homes
Stable Rooms

house and you'll want
selling or repairing, the
manufactured lumber will
lasts once and for all time.

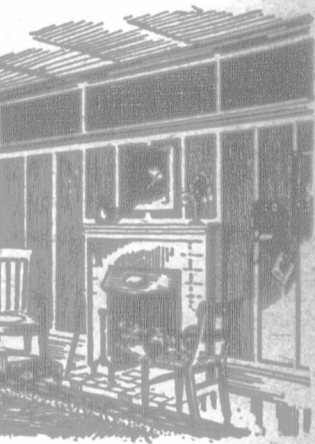
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Belleville District Holstein Sale

Canada's Greatest Annual Auction

ALBION HOTEL STABLES

Belleville, Ontario, Wednesday, April 2nd, 1919

100 HEAD

The Usual Superior Belleville Quality

Selected from the same herds that produced May Echo Sylvia, 41 lbs; Lulu Keyes, 36.05 lbs; Keyes Walker Segis, 34.65 lbs; Hill-Crest King Pontiac Rauwerd, 34.4 lbs; Lawncrest May Echo Posch, 33.78 lbs; Edith Prescott Albino Korndyke, 32.68 lbs; Plus Pontiac Artis, 31.55 lbs; May Echo, 31.34 lbs; Victoria Burke, 31.30 lbs; Princess Segis Walker, 30.70 lbs; Rauwerd Count De Kol Lady Pauline, 30.46 lbs; Lulu Darkness, 30.33 lbs; Hill-Crest May Echo Countess, 30.10 lbs., and etc.—all official 7-day record cows. In the yearly record list, follows Mercena Calamity Posch, 26,448 lbs; Daisy Pauline Pietertje, 23,807 lbs; May Echo, 23,707; Hill-Crest Pontiac Vale, 22,785 lbs; DeKol Plus, 22,304 lbs; Plus Pontiac Artis, 21,018 lbs; DeKol Mutual Countess,

20,679 lbs. and Fremona 2nd, 20,215 lbs. All are of the Belleville District breeding and many of them have passed through previous Belleville sales as untested material. Again for this year, practically everything listed is of much the same breeding and like those mentioned above, all are young and many are still untested. As for the bulls that are catalogued, they too are bred along these same lines. Their dams include 100 pound per day cows and their sires include such noted bulls as Count Segis Walker, Pietertje, King Segis Alcartra Spofford, Sir Saddle Korndyke Segis, Inka Sylvia Beets Posch, Pontiac Hermes, Sarah Jewel Hengerveld's Son, North Star Sir Clyde, Count Gerben, and etc.

For The World's Best Blood, Come To Belleville

All requests for Catalogues should be addressed to

JAS. CASKEY, Sales Manager - **MADOC, ONT.**

FRED MALLORY, Sec. - **FRANKFORT, ONT.**

Kindly mention the Advocate when writing

Europe Wants HOLSTEINS

Little Belgium alone requires 20,000 purebred and 100,000 grade Holsteins. Other European countries are in similar condition. **BREED WHAT THE WORLD WANTS. IF YOU CAN'T BUY A HERD, BUY A HEIFER.**
Information from the **HOLSTEIN-FRIESIAN ASSOCIATION**
President, Dr. S. F. Tolmie, M. P., Victoria, B. C.
Secretary, W. A. Clemons, St. George, Ont.

Holstein Bulls

15 ready for service, 1 younger. From dams with 32.7 lbs. butter in 7 days to those priced for the most conservative buyer. Females also.
R. M. HOLTBY
R.R. NO. 4, PORT PERRY, ONTARIO

case typical of many among our manufacturers. The Dominion Textile Co., making cottons, had cut down the wages of its employees, alleging that it did not receive sufficient tariff protection to enable it to pay fair wages. A deadlock occurred as a result, between employer and employees, the Department of Labor undertook to mediate, and as a result, the Secretary of the Company admitted under oath that, while the Company was only paying 5 per cent. on its stock, this stock had cost but 10 cents for one dollar's worth, so that the innocent-looking 5 per cent. became 50 per cent., besides which the Company was writing off immense sums for repairs and betterments. An enormous profit, so well disguised that it was only by chance the public found it out.

Let us consider another case, that of the Canada Cement Co., a merger brought about by that noble peer, Lord Beaverbrook. In the year 1909, cement-making had advanced sufficiently in Canada to bring about competition, and prices were coming down to such an extent that some

Raymondale Holstein-Friesians

A herd sire of our breeding will improve your herd. We have sons of our present sire, Pontiac Korndyke of Het Loo (sire of \$12,750 Het Loo Pietertje) and also sons of our former sire, Avondale Pontiac Echo. Several of these are of serviceable age, and all are from good record dams. Quality considered, our prices are lower than anywhere else on the continent. These youngsters should not remain long.
RAYMONDALE FARM Write to-day. **D. RAYMOND, Owner**
Vaudreuil, Que. Queen's Hotel, Montreal

HOSPITAL FOR INSANE

HAMILTON - ONTARIO

Present herd sire is one of the best sons of King Segis Alcartra Spofford. We have three of his sons born during May and June last, and also a grandson of Lakeview Lestrangle. Apply to Superintendent.

AVERAGE 114.1 LBS. OF MILK

Premier Middleton Keyes, No. 28052; born Nov 1, 1918, and about 75% white; a perfect individual and great size. His two near dam and sire's sister average 30.97 lbs. butter and 766.4 lbs. of milk in 7 days and 114.1 lbs. of milk in a day. Sire:—King Sylvia Keyes—5 sisters and dam average 115 lbs. of milk in 1 day, a brother to May Echo Sylvia, world's greatest cow. Dam:—Princess Julian of Middleton, with 621 lbs. of milk and 23.71 lbs. of butter in 7 days, with 91 lbs. on her best day. He is priced to sell. Write at once, so that I may tell you more about him.

H. H. BAILEY, Mgr., Oak Park Stock Farm Paris, Ontario, Canada

Important Public Sale

Forty High-Class Holsteins

DRAFTS FROM THE HERDS OF

W. B. Poole and **Alfred Groves**
(FIRTH FARM) (BELLEVUE FARM)

Selling at Firth Farm 3 miles South of

Ingersoll, Thursday, Mar. 20th, 1919

The outstanding feature of this sale, aside from the splendid individuality of the offering throughout, is the large number of cows that will be freshening just at sale time. The majority of Mr. Poole's offering are due late in March, all to the service of the chief service sire at Firth Farm, King Johanna Rauwerd. The dam of this great young sire is the former champion R.O.P. cow, Calamity Johanna Nig, with 25,447 lbs. of milk and 1,007.5 lbs. of butter for the year. While his sire, Hill-crest Ormsby Count, is a son of the famous old "Rauwerd," Canada's first 29,000-lb. cow. The heifer calves that arrive before sale day will not be sold, and the 1918 heifers will also be retained.

Mr. Groves' consignment comprises seven mature cows, seven two-year-old heifers, four bull calves and Captain Snow Canary Hartog, the herd sire, with two exceptions the cows are all in full flow of milk and again re-bred to this sire. Captain Snow Canary Hartog No. 26195 is a son of Calamity Snow Mechthilde 2nd Canadian Champion three-year-old R.O.P. butter 1053 lbs. milk 23274 lbs, R.O.M. 32.70 lbs, butter, 108 lbs milk in 1 day. His four nearest dams average over 30 lbs butter in 7 days and 108 lbs. milk in 1 day. His 1918 and 1919 heifers are the only Holsteins that will be retained in the herd. The mature herd sells in its entirety, and, like the offering listed above it, should appeal to all who are in search of good breeding Holsteins of heavy-producing blood.

All requests for catalogues should be addressed to Mr. Poole.

Conveyances to the farm will start from Atlantic House, Ingersoll.

W. B. Poole, Ingersoll, R.R. No. 5 **Alfred Groves, Salford**

Dispersion Sale

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, Ontario

Tuesday, March 25th, one o'clock

(SALE UNDER COVER)

The herd has been built up on strictly dual-purpose lines. Splendid records have been made, but 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 in the R. O. P.

In the offering are thirteen mature cows with records of 7,500 lbs. up to 13,835 lbs. There are four sons of Burnfoot Chieftain ready for service, also five bull calves and six heifers. For a number of years the senior sire has been Burnfoot Chieftain, an exceptionally fine type of the breed, and his dam, Dairymaid, has an R. O. P. record of 13,535 lbs. milk and 540 lbs. of fat. His daughters in milk are running over 8,000 lbs. in their two and three-year-old form. He is in the sale. All the young stuff being offered is sired by him, and many of the cows are in calf to him. Burnfoot Lady, record 10,681 lbs. and three of her daughters with records over 8,000 lbs., are in the sale and indicate the quality of the herd. Catalogues on application.

Bids by mail will be executed by the auctioneer.

Dinner served at the farm.

Capt. T. E. Robson, Smith & Son, Auctioneers

Mrs. S. A. Moore

Caledonia

companies, probably because of undue initial expense, were failing to show a profit. Moreover, they were not sufficiently well organized to keep out foreign competition, cement from both the U. S. and Great Britain being sold in Canada. Max Aitkin saw his chance, organized the Canada Cement Co., taking in all companies with a total capital of \$17,750,000, poured in \$20,250,000 of water, making the new capitalization \$38,000,000, raised the price of cement in November, 1909, 50 cents per barrel, and drew off enough profits to become an English landed proprietor, a Knight, and ultimately, a Peer. But every building erected in Canada has been paying toll ever since. There is every reason to believe that in the cement industry, unusual and excessive profits are being made.

On Oct. 26th, 1910, the Grain Growers' Guide published a list of mergers that had been formed in Canada since the beginning of 1909. They showed 20 mergers formed, absorbing 135 individual companies. In every case the stocks of the new concerns were very largely watered. In talking of the profits of manufacturers, it is well to remember that the large injection of water has been almost universal in the history of Canadian manufacturers, and that what may appear as a very innocent and reasonable profit, may when the water in the stock is considered, be a very unreasonable one, as in the case of the Dominion Textile Co., cited above.

The late president of the Canadian Manufacturers' Association, during the discussion the past year arising out of press criticism of the high tariff propaganda of that Association, stated his belief that, "generally speaking, over a series of years farmers averaged up on their actual capital employed as great a percentage of profit as did for lack of capital and labor, because capital and labor, under the handicap of protection, cannot find adequate rewards in it. With adequate capital and labor we can double, quadruple our production, and save the country. Without it, financial disaster stares us in the face. In the interest, not of the farmers, but of the country, we must set agriculture free from the artificial handicap of our protective tariff. We need not fear the extinction of manufacturers. All

Seventh Semi-Annual BRANT DISTRICT BREEDERS CONSIGNMENT SALE OF

50 Registered Holsteins 50

HUNT and COLTORS Livery Barn

Brantford Ontario, Wed. March 26th, 1919

The Brant District Holstein Breeders are endeavoring to make this one of the best sales ever held in Canada. One of the most outstanding features of the sale is that the stock offered is all inspected by a competent committee, and nothing offered in females other than cows fresh or due about sale time (47 head). There will also be three richly bred bulls ready for service.

As Brant District is noted for its high-class herd sires including such bulls as a son of Baroness Madoline, a grandson of Lula Keyes, a grandson of King Segis, a son of Calamity Snow Mechthilde 2nd, a grandson of Royaltor DeKol Violet; and old Lakeview Dutchland Hengerveld 2nd the unbeaten bull in the Canadian show ring. With such breeding this should be a grand opportunity to strengthen your herd.

SALE AT 1 O'CLOCK P.M.

T. W. Craig, Pres. **E. C. Chambers, Sale Manager**
Col. W. Almas, Auctioneer

WRITE FOR CATALOGUE TO

N. P. SAGER, Sec. Tres., St. George, Ont.

those suited to the country will survive without doubt, and if any of them show signs of sickness under the change of climate, a simple operation known, believe as "Tapping" will remove the dropsical moisture from their systems, and set them on their legs again. And this brings me to a very brief thought on another of the economic problems of reconstruction, the reinstatement of our returned soldiers in civil life. Very many of them have signified their desire to farm, and there is no place where they will be safer or where they will do more good in the upbuilding of the country than in rural life. But, when they have been planted on farms, when they commenced to till the ground they have fought to save, in the name of justice and freedom, let us see that they are given economic justice, let us see that no privileged class are given the power, through a protective tariff to take their rewards from them. Unless we do this, though we may place them on the land, they will not, cannot stay there.

But the downward revision of the tariff is not the only thing needed to pull us out of our financial peril. The strictest economy in national expenditure will be necessary. Unless the people of this country keep strict watch on the administration, it is to be feared that instead of this, we will now enter on a period of gross extravagance. Munition work has ceased, even now there is unemployment in towns and cities, and shortly this may reach a dangerous pitch. To tide over this condition until the workers can adjust themselves to new conditions it will be necessary to undertake public works. I am not criticizing this policy, but I do say that unless every work so undertaken is of such a nature as to give not only employment, but permanent profitable returns for the public money invested, our last state will be worse than the first. Such work may be found in hydro-electric development in drainage schemes, in re-affording the waste lands. It does not appear, however, that this is the sort of work that is to be undertaken but rather that there is to be an orgy of road-building. There is on foot a pretentious Provincial Highway scheme, by which trunk lines are to

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Sale ALL-PURPOSE CORN

MOORE the entire herd
reserve.

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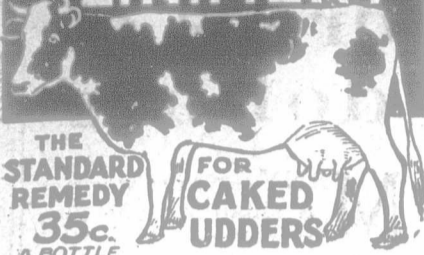
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DOUGLAS' EGYPTIAN LINIMENT



THE STANDARD REMEDY 35c. A BOTTLE
FOR CAKED UDDERS
"I have used Douglas' Egyptian Liniment for cattle with Caked Bags or Udders and consider it a marvellous remedy. In 24 hours after applying this Liniment our cows milked freely. No Farmer or Cattleman can afford to be without Egyptian Liniment on his premises." (Signed)
D. W. SHEA,
Odessa, Ont.
This Liniment will also stop bleeding at once and prevent blood poisoning
SOLD BY ALL DEALERS
DOUGLAS & CO., Manufacturers, NAPANEE

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FEED CANE MOLASSES
Is now obtainable here. Write for prices.

COTTON SEED MEAL
(38 1/2% Protein)
We can now fill all orders for this high grade dairy feed. Get our prices on car lots or less.

SEEDS
Get your orders in early. Our usual High Grade Field and Garden seeds in Packets and Bulk are now ready. Get our prices on Ontario High Grade Seed Corn, Marquis Wheat, Oats, Barley, Peas, etc. We also handle—
Linseed Oil Cake Meal, Corn Oil Cake Meal, Gluten Feed (23% Protein), Bran, Shorts, Feeding Corn Meal, Sugar Beet Meal, Corn and Barley Chop, Schumacker, Stock Feed, etc.

POULTRY FEEDS
Ask for our list of Poultry Feeds and supplies. We can usually save you money.

CRAMPSEY & KELLEY
DOVERCOURT ROAD, TORONTO

JUST JERSEYS Baldwin's REGISTERED COATICOOK, QUE.

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.
Will Sell Few Fresh Jersey Cows
Jersey Bull one year, dam Mabel's Poet Snowdrop, 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 Pat. Champion Berkshire Boar Eastern Prov. 1916-17.
IRA NICHOLS, R. R. No. 2, Burgessville, Ont.

Glencairn Ayrshires—Herd established ability from 8,600 to 11,022 lbs. Producing 40 years. If that sort of production appeals to you, we have heifers all ages and young bulls for sale. **THOS. J. MCCORMICK, Wockton, Ont. Copetown Station, G.T.R.**

City View Ayrshires—Young cows just freshened, heifers due in January or February. You should have one of our service bulls; all R.O.P. bred.
JAMES BEGG & SON, St. Thomas, Ont.

Choice Offering in Ayrshires
AT SPECIAL PRICES. Several young bulls of serviceable ages. All from R.O.P. sires and dams. Come and see them.
JOHN A. MORRISON, Mount Elgin, Ontario.

be built through the province, partly at provincial cost, and partly (30 per cent. in case of townships and 40 per cent. in case of counties) by the municipalities through which the road passes. These roads will serve no useful purpose, since for all long distance transportation we have our railroads, and, if I am correctly informed, the regulations will be such that no farmer will wish such a road to pass his farm, and certainly no township, having the heavy addition to taxes in view will want such a road through it. They will be simply automobile speedways and, in a country threatened with bankruptcy, an unwarranted luxury. There is, however, perhaps another end in view. The building of these roads will bring temporary prosperity to the towns and cities, and this at the expense of the rural municipalities. At the present time the credit of urban municipalities has been strained almost to the limit, owing as they do \$257,740,672 on an assessment of \$1,312,118,270 while the credit of the townships is almost untouched, owing only \$8,853,926, on an assessment of \$692,560,277. It seems as though the design is to tap this rural credit, the result of sound economy, for the benefit of cities and towns. Our faces, in our own interest and that of the nation should be set against the whole foolish scheme. Good roads we need, but not provincial trunk lines. The roads we need are those which will facilitate the handling of farm produce, not cement speedways, but good gravel roads radiating from shipping points, heavily metalled toward their objective, and growing thinner and less expensive toward the outer ends. But, if we characterize the provincial road services, professional, mercantile and public, at the same enhanced rate, and while compelled to live and carry on his business in a community where every service is enhanced in price from 30 to 40 per cent. because of a tariff, he must sell his product abroad in competition with the cheapest labor and land in the world. Under these circumstances it is no wonder he is going out of business, as our shrinking rural population shows.

There is a widespread belief among city people, a belief fostered by Mr. Parsons in his advertised propaganda, and also, perhaps unintentionally by the press, that farmers are making huge profits. Let us examine this. In the fall of 1917, the Ontario Department of Agriculture made a farm survey in the township of Caledon. It was found that after allowing for depreciation, repairs and running expenses, and allowing 5 per cent. on capital invested, the income of the farmer as manager and worker ran from \$507 per year in the case of the smaller farms, to \$1,581 per year in the case of larger farms. It is well to remember that this was in 1917 a record year both for crops and prices. The rate of interest 5 per cent. is lower than money can be borrowed for. How much would the labor return have been had interest been charged at current rates, or had either the crop or the prices or both, been normal, or as often happens, subnormal? As it was, in a record year, the average labor return was less than a mechanic's wages, though the farmer was manager as well as laborer, and was on the job for 12 or 15 hours a day, and 365 days in the year. It is small wonder under these circumstances that farm population is shrinking at an alarming rate, as it is, rural population in Ontario, which was 1,245,968 in 1901 having shrunk to 1,194,785, in 1911, and in 1917, to 1,003,664, the latter figure being from municipal statistics. It is clear that if present conditions are allowed to continue we must expect farm population and farm production to still further decrease.

But it is to the Canadian farms that we must most largely look to pay our immense interest charges and foreign indebtedness, and to save our country from bankruptcy. In the three years, 1912-13-14, which we may regard as showing before the war conditions to which we must soon return, out of a total average export of \$359,189,371 of Canadian goods, the farms of Canada exported an average of \$200,614,477, while the manufacturers exported only \$45,657,481, and it is well to remember that a considerable portion of these, such as flour were secondary farm products, and we may add most of the manufacture exported were from industries, such as the making of wood pulp, which would be benefited rather than hurt, by lower tariff and lower cost of production. It becomes evident then, that the redeeming of Canada's financial

LISTER MILKERS

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The Cows like it. Owing to the natural action on the cows' teats all grades and breeds of cows can be milked with entire safety.

Send now for full particulars

**LISTER ENGINES and GRINDERS
LISTER SILOS and SILO FILLERS
LISTER MILKING MACHINES
MELOTTE CREAM SEPARATORS
AVERY TRACTORS**

Write for Catalogue to Dept. "G"
**R. A. Lister & Co., (Canada) Limited
TORONTO**

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**

PROSPECT FARM JERSEYS

We have a large herd, and for over 30 years we have used only first-class sires, and are now in a better position than ever before to offer some choice young cows and heifers, "both registered and high grades," due to calve in March and April. They are all in the pink of condition, and the high grades will make ideal family cows. Choice young bulls six months and younger.

R. & A. H. BAIRD, New Hamburg, Ontario. Bell 'Phone

CANADA'S MOST BEAUTIFUL JERSEY HERD
The Woodview Farm—Herd headed by imported Champion Rowner, winner of first prize with five of his daughters on the Island of Jersey, 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.

JNO. PRINGLE, Prop.

The Edgeley Champion Herd of Jerseys—Present offering: Two young bulls dropped June 1918, one sired by Brampton Prince Stephen, dam Rhoda of Pine Ridge Farm, 10,801 lbs. milk, 593 lbs. fat in one year. Others sired by Edgeley Bright Prince, son of Sunbeam of Edgeley, champion butter cow of Canada.
JAMES BAGG & SON (Woodbridge, C.P.R.; Concord, G.T.R.), Edgeley, Ont.

Announcing the Gladden Hill Dispersal

THIRTY-FIVE HEAD

THE GREATEST AYRSHIRE EVENT OF THE SEASON

Selling without reserve at the Canadian National Exhibition Grounds

Toronto, Ont., Wednesday, April 2nd, 1919

Breeders will recognize in this offering a herd that is both well and favorably known to all. In the show ring—in the Record of Performance tests—and in the fields at Gladden Hill, they never fail to please and show a profit. There will be no reserve, and all are sold subject to the tuberculin test.

WRITE FOR CATALOGUE.

LAURIE BROS. - Agincourt, Ontario

Homestead Farm R. O. P. Ayrshires

At the head of our herd at present we have a grandson of the great Jean Armour. He is being used on the daughters of our former sire Garglaugh Prince Fortune (imp). We can spare a few R. O. P. females of this breeding and also have young bulls. MacVicar Bros. Phone 2253, Harrietville, Belmont, R.R. No. 1 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 Humeshaugh Invincible 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.

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-headers 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

Get Longer, Better Wool

Shear with a machine and leave no second cuts nor scar the sheep. Use a Stewart No. 9 Ball Bearing Shearing Machine. Get 15% more wool easily and quickly. Removes the fibre completely, making it longer and better selling. Leaves a smooth, even stubble for next year's growth. Machine soon pays for itself. 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, Ill.

SHROPSHIRE SHEEP Breeding ewes of Kellock and Campbell breeding; bred to lamb in March and April, also ram and ewe lambs. C. H. SCOTT, Hampton P. O. Oshawa, Station, all Railways. Bell Phone.

TOWER FARM OXFORDS

Special offering: Ewes, different ages, bred to our Champion ram. E. BARBOUR & SONS, R.R. 2, Hillsburg, Ont.

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.

FOR SALE

Shropshire ewe lambs and young ewes, two Clydesdale Stallions, four Shorthorn bulls. W. H. Pugh - Myrtle Station, 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.

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.

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.

Poland China and Chester White Swine

Choice young stock by imported champions, both breeds; sows for spring farrow, and a few boars. All at moderate prices. GEO. C. GOULD, R.R. 4, Essex, Ontario

Sunnyside Chester Whites and Dorsets

In Chester Whites both sexes, any age, bred from our champions. In Dorsets ram and ewe lambs by our Toronto and Ottawa champion, and out of Toronto, London and Guelph winners. W. E. Wright & Son, Glanworth, Ont.

Prospect Hill Berkshires

Young stock, either sex, far sale, from our imported sows and boars; also some from our show herd, headed by our stock boar, Ringleader. Terms and prices right. JOHN WEIR & SON, Paris, Ont., R.R. 1

Lakeview Yorkshires

If you want a brood sow or a stock boar of the greatest strain of the breed (Cinderella), bred from prize-winners for generations back, write me. JOHN DUCK, Port Credit, Ont.

Champion Duroc Jerseys

Herd headed by two champion boars: Campbell 46, 3941, Toronto and London champion, 1916, 1917; Brookwater Ontario Principal 9735 (imported), London-Toronto and London, 1918. Write, or come and see my herd. Satisfaction guaranteed. CULBERT MALOTT, R.R. 3, Wheatley, Ont.

BERKSHIRE PIGS

Bred ready for service, sows bred and ready to breed. Also some young things bred from winning stock. Prior to sale: JAMES STARKE & SONS, Postville, R. R. No. 1, Ontario.

position which will be the work of the farms rather than of the factories.

Since it is to Canadian farms that we must largely look for the exportable surplus which alone can save us from national bankruptcy, since Food Controller Thompson was literally right when he said that the first six inches of Canadian soil must pay our national indebtedness it is perfectly clear that this industry must be set free to do its part. It is and has been, sorely handicapped scheme as folly, what shall we say of the more ambitious scheme of a Federal coast to coast highway? This road will be absolutely useless. We already have three transcontinental railways, two more than we need, and we don't know what to do with them, because there is not enough traffic to make them pay. To add to these an almost equally expensive highway along which none but long-distance tourist traffic would pass, would be to pile folly on folly.

The worst of it is, the people of this country cannot depend on either the wisdom or the good intentions of their leaders. Time and again have we been committed to issues involving serious consequences for no object but to win an election. In 1878 Sir Jno. McDonald introduced his national policy to win an election, though it is said he had also a speech advocating Free Trade in his pocket, and would have used it had MacKenzie taken the other side. Sir Wilfred Laurier launched the Grand Trunk Pacific to provide an election cry, and it has been a burden to us ever since, but in 1911 the people of Canada were stampeded into rejecting the best and wisest thing we ever had a chance on, which would not only have increased our prosperity, but would have cemented the bonds of friendship between ourselves and our great friend and ally to the south. They were stampeded by the most wicked and traitorous cry ever raised, a cry which was intended to arouse, for mere election purposes, that most dangerous thing in the world, national hatred. You remember the slogan, as false as it was wicked, "No truck nor trade with the Yankees."

We need a new National Policy. That policy I believe is found in the platform of the Canadian Council of Agriculture. With its trade policy I agree, with its taxation policy, I agree. There is just one thing I would like added to it, and that is, the entire renovation of our Parliamentary life and the thorough cleansing of the Augean stable of Canadian politics, a thing which can only be done by the citizens arousing themselves, shaking free of party shackles and electing to parliament men who will indeed represent them.

Questions and Answers.

Miscellaneous.

Absence of Oestrus.

I have a five-year-old cow which freshened in October. She has not been in season since. What do you advise me to do? R. W.

Ans.—It is possible that the cow has been in season without being noticed. About all that can be done is to allow nature to take its course. Turning the cow and bull in yard for a while each day may result in nature asserting herself. Some have claimed that the administration of 2 drams nux vomica three times daily has the desired effect by stimulating the nervous system.

Proposed Piano Purchase.

A ordered piano through agent B at a certain price, no money being paid down and B after communicating with manufacturing firm, informs A that the firm had no piano as described in order, but that the firm would put up one answering the description, provided A would pay \$25 more.

The deal was called off as far as A and B were concerned in the presence of witnesses, but order not returned.

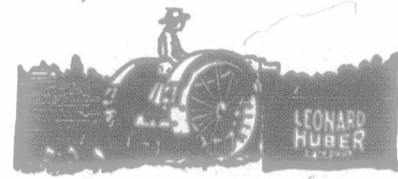
1. Can firm hold A responsible for order? A has also written the firm cancelling the order.

2. After the order is signed, what is the limit of time, if any, allowed A to make such cancellation. Ontario P. W.

Ans.—1. No.

2. That does not really enter into the matter, seeing that the firm in effect declined to accept the order as given. We do not see that A is legally called upon to do anything farther.

When every day is worth hundreds of dollars



MANY days are worth a small fortune in busy seasons on the farm. A LEONARD-HUBER Light Four Tractor will save you many such days, each year.

The Leonard-Huber is fully guaranteed. Built by a firm possessing over 40 years' experience. Runs on gasoline, kerosene or distillate. Has the finest cooling system yet devised. Turns in the radius of 5 1/2 feet. Has automobile steering device, underslung frame, 4 cylinder engine, 4 1/4 inch bore x 5 3/4 inch stroke. Speed 2 1/2 to 4 miles an hour.

THE LEONARD-HUBER Light Four 12-24 12-24

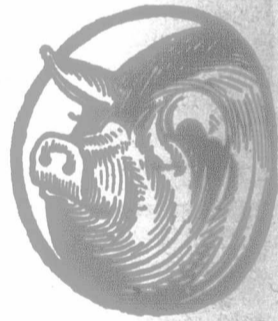
Large front wheels mean easier travelling on soft ground, saving fuel. Pulls three plows. Runs in the furrow and is self-steering. Has correct weight in proportion to drawbar pull. Delivers 12 H. P. at the drawbar, 24 H. P. at the pulley. Cut steel gear transmission, runs in oil bath; belt power is taken direct from the engine (no gears). Hyatt roller bearings and Gurney ball bearings. Does the work of 6 horses and 3 men, turning an acre an hour or running all the machinery of the farm.

Let us send you illustrated folder "Doing the Impossible."

Address: Engine Dept. E. LEONARD & SONS LIMITED LONDON, CANADA.

INTERNATIONAL

Stock Food Tonic



3 FEEDS FOR 1 CENT

Is a Wonderful Hog Tonic

KEEPS hogs thrifty, healthy and growing fast, by helping digestion and assimilation it gets every dollar's worth of value out of the feed.

A tablespoonful mixed in the regular feed for each two hogs will keep the appetite and give an added relish for all feed.

International Stock Food Tonic supplies, in a concentrated form, ingredients hogs obtain when rooting on free range, and which are absolutely necessary to keep them in a healthy and profitable condition.

By its use worms are destroyed and further development made impossible. Just try International Stock Food Tonic on one batch of hogs. You'll be convinced.

Equally as good for cows and horses. Complete direction on every package. Sold by dealers everywhere. Beware of substitutes and insist on International for sure results.

Sold in convenient sized packages, also in 25 lb. pails at \$3.75 each.

INTERNATIONAL STOCK FOOD CO., LIMITED TORONTO - ONTARIO

ELMHURST LARGE ENGLISH BERKSHIRES From our recent importation of sows, together with the stock boar, Suddon Torredale, we can supply select breeding stock all ages. Satisfaction and safe delivery guaranteed. H. M. VANDERLIP, Breeder and Importer, R. R. 1, BRANTFORD, ONTARIO. Langford Station on Brantford and Hamilton Radial.

Oak Lodge Yorkshires, Shorthorns —We have one of the strongest selections of young sows and boars we ever had in the herd. Write us also regarding your next herd sire. We have them from great milking dams—all good families. J. E. BRETHOUR & NEPHEWS, Burford, Ont.

A Unique Holiday.

EDITOR "THE FARMER'S ADVOCATE":

On the principle that change of work is as restful as cessation of work, I rented my farm on shares and took up congenial work in the city. The change was delightful. Of course, at first, accustomed to be every day and all the time in close touch with nature, one is apt to lose one's bearings when placed all of a sudden amidst totally different surroundings. One is dazzled by the general magnificence; the street cars, the shop windows, the crowds of people all in their Sunday clothes, and apparently out for a holiday. Then there are the electric lights and the hot and cold water ready to hand. Life seems so luxurious. No wonder that the city casts a spell over our country boys and girls. There was even a subdued pleasure opening up my old tool chest which had been discarded when I took to farming. I was pleased to find, that not all of the tools were rusted though some of them were out of date.

The holiday season came round and when the schools closed, I overheard my grandchildren discussing their plans and what they would do when they "went out to the country." They talked of riding and fishing and shooting gophers blissfully unconscious of the fact that "Grannie" was no longer on the farm. I caught their enthusiasm and decided to take the family back to the old place during the summer vacation. In my agreement with the lessee I had retained the privilege of using the main portion of the farmhouse as a summer residence. Thus it came about that I had the unique experience of having a real holiday on my own farm.

Milton says "the mind is its own place and can make a heaven of hell, a hell of heaven." Tennyson expresses the same thought in Locksley Hall, and it is a truism to say that on the mind's attitude to external nature depends largely the beauty and pleasure derived from what we see and hear. To the illiterate yokel the yellow primrose connotes nothing; to a Wordsworth or a Robert Burns it is an inspiration. The want of cultured leisure deprives the farmer of enjoying one of his richest assets.

My month's holiday was to me the harvesting of an aftermath. I fell in love with and courted and caressed the nymphs and naiads that lured me into my own woods and along the banks of my own stream.

A Frenchman once had the words "prose" explained to him. When he grasped its meaning he exclaimed: "Why, I have been speaking prose all my life and did not know it!" In my case it was poetry I had been living in the midst of all these years and for lack of opportunity I had failed to be conscious of its nearness.

Shakespeare tells us that "the means to do ill deeds makes ill deeds done." I found the converse true—the means to do good deeds and to think beautiful thoughts cultivate traits of character that otherwise would have remained latent.

Of course I raked up some "dead joys" when garnering my aftermath. This was to be expected, for was I not wandering leisurely amidst the scenes of strenuous effort, ambitions, hopes, dreams. But I steadily refused to be drawn into the depressing atmosphere of might-have-beens. I joined the children in their heart-whole enjoyment of the present. They showed me more kinds of birds than I could have believed lived in our groves. They took me to an old hollow tree that for years had been the breeding place of a pair of eyeoldas. Something seemed to be wrong this year as the parent birds were flying around in a most excited manner. And no wonder. The brood of fledglings were sparrow-hawks! They dragged me over to the island where, they had discovered a colony of beavers building their winter quarters. Sometimes I slipped away with my rod to a favorite pool "far from the maddening crowd."

It was Charles Lamb, I think, who discovered how delicate a morsel is roast sucking pig. The piggies had got roasted by accident, owing to a shack having been burned to the ground. Later he wanted more delicious roast sucking pig and was arranging to have another shack set on fire when a friend showed him that one could get roast sucking pig without burning the shack. I have discovered how delicious a morsel is a month's holiday on one's own farm.

Alta.

W. R. McD.

"Would you step on a cockroach—or would you refrain from staining the floor?"—Roosevelt

THE "ethics" of business call for courtesy between competitors—and the "ethics" of advertising also demand "truth in advertising." After observing the former, we find it absolutely necessary to "step on" some of the false claims and untrue propaganda of several separator manufacturers in an attempt to preserve a semblance of "truth" in their advertising.

We owe it to the dairy people of this country to present the real facts regarding cream separators. Propaganda based on the falsest of claims has been spread in an attempt to mislead American farmers. In presenting these facts, we stand ready to prove every assertion; they are based on actual records of dairy history.

Official records show that the first cream separator was invented by the French, and that patent No. 105,716 was granted to the company of Fives-Lille, of France, November 19, 1874, for a "system of continuous centrifugal separation." A little later the Danes developed the cream separator and were the first to introduce cream separators into America. Four years later, in 1878, a Swedish concern took advantage of the French invention and built a cream separator.

Looking for American business, this concern contracted with Mr. P. M. Sharples, an incentive genius of West Chester, Pa., to manufacture, install, and repair their machines in America. The first machines were decidedly impractical and unfitted for efficient use in American dairies and creameries.

Mr. Sharples attempted for a few years to make of this foreign machine a satisfactory separator, and during this time invented all the great improvements that have since been used by this type of machine. Among his invented improvements were the discs in the bowl, the splash oiling system, the detached spindle, the lowering of the supply can, and the concave bottom bowl, which permitted a part of the weight of the bowl to be suspended below the bearing. The complication of the machine, however, soon caused him to give up this manufacturing contract entirely, and, with true American ingenuity, he built a real American separator, adapted to American dairy needs and entirely different in that it was a most simple and efficient machine.

The Sharples factories are the oldest and largest separator factories in America. They have always been entirely American-owned. During the thirty-

eight years of its existence, The Sharples Separator Company has manufactured more separators than any other factory in America, and the output of the Sharples factory to-day exceeds that of any other separator factory in the world. More Sharples machines are being sold than any other, and a much larger percentage of those sold are to-day in actual use.

Every American dairyman should know these facts, and has the right to, and should, on buying a machine, ask the following questions of any separator manufacturer:

"Will your separator skim clean and deliver a cream of even density at any speed at which it may be turned? Is the bowl free from troublesome discs or blades? Has the separator an entirely automatic oiling system, and do you guarantee your separator for durability to the extent that you guarantee a repair expense not to exceed \$2.00 per year?"

"Is your separator built in American factories, by American manufacturers, by American labor, of American material, and entirely owned by Americans? Is it truly an American separator, unencumbered by no suspicion of taint of Hun propaganda?"

It is due to Mr. Sharples' untiring efforts during the thirty-eight years of his separator manufacturing experience—not to any foreign makers or inventors—that the American farmer owes the modern efficient cream separator. The Sharples Suction-feed Separator is the perfected machine; all other separators are to-day where Sharples left off years ago—old style, bucket bowl, fixed feed machines.

We say, without fear of contradiction, that the modern Sharples Suction-feed Separator

—is the only separator in the world that skims clean and delivers a cream of even density at widely varying speeds;

—is the only separator in the world with a controlled varying capacity;

—is the only separator in the world with a knee-low supply can, easy to fill;

—is the only separator in the world with a perfect automatic splash oiling system, not a single oil cup;

—is the only separator in the world with a hollow tubular bowl—no discs to wash.

Write to-day for the complete Sharples Catalog on cream separators. Address Dept. 78.

The Sharples Separator Co.

TORONTO, ONT.

REGINA, SASK.

Over 2,425,000 Sharples Separators in daily use

TC-3

FIELD PINE TREE BRAND SEEDS

TIMOTHY CLOVERS

IT STANDS ALONE

THE ALBERT DICKINSON CO.

CHICAGO ILL.

DETROIT — BUFFALO — BOSTON — MINNEAPOLIS

Steel Rails

for Reinforcing Bridges and Barn Driveways.

Cut any length.

JNO. J. GARTSHORE

58 Front Street West Toronto

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.

Every day is worth hundreds of dollars

Many days are worth a small fortune in busy seasons on the Light Four Tractor will wear.

Guaranteed. Built by a firm. Runs on gasoline. Best cooling system yet. 5 1/2 feet. Has automatic. 4 cylinder engine. Speed 2 1/2 to 4 miles an

travelling on soft ground, in the furrow and is self-cleaning to drawbar pull. Cut steel power is taken direct from bearings and Gurney ball and 3 men, turning an acre of the farm.

"Doing the Impossible."

SONS LIMITED CANADA.



3 FEEDS FOR 1 CENT

Hog Tonic

ing fast, by helping digestion's worth of value out of the feed for each two hogs will h for all feed.

lies, in a concentrated form, in free range, and which are healthy and profitable con-

er development made impossible. on one batch of hogs. You'll be

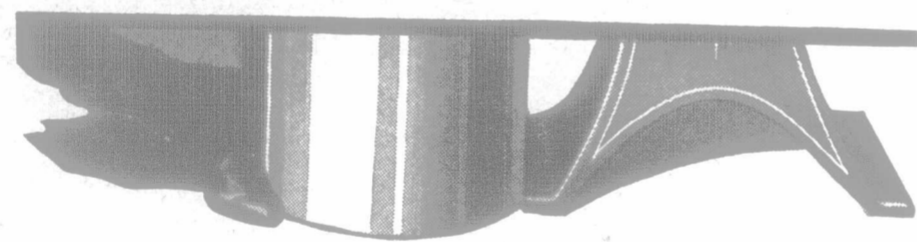
titutes and insist on International lb. pails at \$3.75 each.

OOD CO., LIMITED ONTARIO

GLISH BERKSHIRES with the stock boar. Suddon Torredor. satisfaction and safe delivery guaranteed. R. R. 1, BRANTFORD, ONTARIO. and Hamilton Radial.



Eight Good Reasons Why You Should Buy a DE LAVAL



GREATER CAPACITY: New capacities have been increased 10% without increase of speed or effort required in operation.

SKIMS CLOSER: The improved bowl design, together with the patented milk distributor, gives greater skimming efficiency.

EASIER TO WASH: Simple bowl construction and discs caulked only on the upper side make the bowl easier to wash.

EASIER TO TURN: The low speed of the De Laval bowl, the short crank, its unusually large capacity for the size and weight of the bowl, and its automatic oiling throughout, make it the easiest to turn and least tiring to the operator.

THE MAJORITY CHOICE: More De Laval's are sold every year than of all other makes of separators combined. More than 2,325,000 are in daily use—thousands of them for 15 or 20 years.

TIME TESTED: The De Laval was the first cream separator. It has stood the test of time and maintained its original success and leadership for 40 years the world over.

EQUIPPED WITH SPEED-INDICATOR: Every New De Laval is equipped with a Bell Speed-Indicator, the "Warning Signal" which insures proper speed, full capacity, thorough separation and uniform cream at all times.

SERVICE WHEN YOU NEED IT: The worldwide De Laval organization, with agents and representatives ready to serve users in almost every locality where cows are milked, insures the buyer of a De Laval quick and efficient service whenever he needs it.

THE DE LAVAL COMPANY, Ltd.

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

MONTREAL PETERBORO WINNIPEG VANCOUVER
50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER

Our School Department.

The Rural Teacher as a Leader.

BY AN ADMIRER OF GOOD SCHOOLS
A teacher in one of the counties in Central Ontario wanted a better school, improved inside and out; improved especially with respect to grounds and to those things having to do with the comfort and health of the pupils. This teacher had a vision.

The first move she made was to ask the Secretary of the Board of Trustees to provide a fence along in front of the school. Now, the new idea is that fences in front of buildings are unnecessary and costly. Moreover, this secretary stated that he attended that very school himself and there was no fence then. Surely what was good enough for him should be good enough for the "kids" now. What better are these children than their parents? Yes, of course, why should this very Secretary use a self binder in his harvest field, riding around all day, instead of swinging a cradle as his father did? What was good enough for his father should be good enough for him. However, the teacher was wise, she made no reply to the wisdom expressed by the Secretary, she adopted a wiser plan. She took a half-hour from the regular school day and talked over some matters of improvement of grounds especially in front of the school building. The pupils were asked if they would be willing to take part of the school time the following day to clean up in front and around the building. Would they be willing to bring spades, rakes, shovels, a wheelbarrow, etc.? Yes, of course, they would, some one thing and some another, girls and boys all, and teacher too. It might be hard work, would they be willing? Yes, certainly. To-morrow is to be a memorable day, we are going to do some school work outdoors to-morrow, don't forget the tools.

Next morning about 8.30 pupils began to arrive, one carrying a spade, another a rake, a third a wheelbarrow and so on. They made some noise, no doubt. It made the "kids" all laugh and play to see (not a lamb) but some tools at school.

When nine o'clock arrived and school was called, a spirit of enthusiasm was so apparent that some extra effort was needed to keep this enthusiasm within bounds awaiting the time when business would commence. This was to be at 2.30 in the afternoon. What a long time to wait with so inspiring a prospect ahead!

About two-thirty forces were to be organized, one group to pick up the tin cans, brick, wire, etc., another to dig up a portion of the bank to be levelled; another to make a flower bed; another to pick up the paper strewn around and so on. Hollows are filled up; the teacher pointing out that these resemble shell craters or buffalo wallows. Knolls like little kopjes are levelled down and stones cleared away.

About 4.30 the work, though not entirely completed, was fairly well done, words of encouragement given to the pupils and a spirit of ownership and responsibility inspired. The pupils have a new pride in their school. Woe to the intruder, man or beast, that tramples on or otherwise destroys the work done.

The next move was a request by the teacher to the Secretary for permission to plow up part of the grounds for a school garden. The Secretary stated that he did not see what the teacher wanted a school garden for, as his own children had all the garden work and more than they

could, or would, do at home. He pointed out that he could not get his children to do the weeding necessary in his own garden and how then could the teacher succeed in inducing the same children to work at a garden in school. The teacher answered this wisdom by asking if he would object to her having part of the grounds plowed and attempting the work. Well no, he would not go so far as that, but was kind enough to warn the teacher that the whole thing was sure to be a failure.

The school garden was plowed and laid out. The pupils did the work and were always eager for the time to come when garden work was to be done whether hoeing, planting or weeding. No difficulty to get pupils to leave their tasks in subjects so interesting as even grammar, history or arithmetic, in order to work in the garden and learn about weeds, soils, transplanting, etc.

The school was located on one of the leading roads and those who passed by began to note improvement, no papers strewn about;—the Progress Club attended to that. There were flower beds in front and a school garden at the side.

The next year a fence was built in front and the teacher did not ask for it; new closets were built at the suggestion of the teacher. These closets were kept tidy and clean—the Progress Club attended to that.

The Secretary, however, was game and "came across." He is now one of those whose eye sparkles and whose face takes on a kindly look when he sees a motor car stop in front of the school to admire the improvements.

In this same school they frequently have a hot meal at noon made partly from the product of the garden. The school is certainly improved both inside and out.

Tell Others How You Do It!

There are teachers in almost every inspectorate who have been outstandingly successful in some particular branch of their agricultural work. Perhaps it was in connection with the school garden or in conducting a special fair at the school. We know of one teacher who took the pupils to the farm of a leading breeder of live stock and there taught her lesson. In another instance a teacher dismissed school long enough for the children to go out to the road and guess the weight of a load of hogs that was going to the shipping point. When the owner of the hogs returned he announced the actual weight. These are only a few instances and we want teachers, who take an interest in agriculture, to write a short letter to this Department and give others the benefit of their experiences.

Do You Know The Birds?

A calendar appeared in Nature's Diary last week telling just when to watch for their return.

Get the parents in the section to take an interest in the school garden, and in beautifying the grounds. When this is accomplished the results are more gratifying.

Plan now how the school grounds can be improved and what should be planted. Don't wait till spring.



A Friendly Tussel.

partment.

r would, do at home. He pointed he could not get his children to do ding necessary in his own garden y then could the teacher succeed ing the same children to work arden in school. The teacher d this wisdom by asking if he bject to her having part of the plowed and attempting the work. he would not go so far as that, kind enough to warn the teacher e whole thing was sure to be a

chool garden was plowed and . The pupils did the work and ways eager for the time to come rden work was to be done whether planting or weeding. No diffi- get pupils to leave their tasks ts so interesting as even grammar, or arithmetic, in order to work arden and learn about weeds, nsplanting, etc.

chool was located on one of the roads and those who passed by o note improvement, no papers out;—the Progress Club attend- t. There were flower beds in front ool garden at the side.

ext year a fence was built in front teacher did not ask for it; new vere built at the suggestion of her. These closets were kept d clean—the Progress Club d to that.

ecretary, however, was game and cross." He is now one of those re sparkles and whose face takes dly look when he sees a motor in front of the school to admire vements.

same school they frequently ot meal at noon made partly e product of the garden. The certainly improved both inside

Others How You Do It!

are teachers in almost every ate who have been outstandingly in some particular branch of agricultural work. Perhaps it was action with the school garden nducting a special fair at the We know of one teacher who pupils to the farm of a leading f live stock and there taught her n another instance a teacher school long enough for the to go out to the road and guess t of a load of hogs that was the shipping point. When the the hogs returned he announced l weight. These are only a few and we want teachers, who take st in agriculture, to write a ter to this Department and s the benefit of their experiences.

You Know The Birds?

endar appeared in Nature's st week telling just when to their return.

e parents in the section to take st in the school garden, and in g the grounds. When this is hed the results are more

ow how the school grounds can ed and what should be planted. t till spring.

CANADA PAINT

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Spray, If You Want Good Crops.

C.P. Dry Powdered ARSENATE OF LEAD contains from 31 to 33 per cent Arsenic Oxide, and does the work of twice the quantity of the paste material.

It kills the orchard pests every time—destroys all leaf-eating insects—is easy to use—stays in suspension longer—is more economical to ship—and keeps its strength indefinitely.

PARIS GREEN for Potato bugs—C.P. Arsenate of Lime (KALCIKILL)—C.P. BUG-O-CIDE are insecticides that give results every time.

Ask your dealer for the C.P. brands and write us for our Spraying Booklet.

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Makers of the famous "CANADA PAINT" and "ELEPHANT BRAND" White Lead.
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16

Most Accurate Ever Invented

Are you content to go on in the old-fashioned way using all your available farm help planting by hand, limiting your acreage because of labor scarcity, and keeping your help away from other pressing work in busy season?

Get an O-K Canadian Dial Planter and get your planting done accurately without seed waste and in a fraction of the usual time.

The O-K Canadian is the only planter that has the endless cup seed dropping device. It does not pick or bruise the seed. It is noted for being the most accurate system yet invented.

From the roomy steel hopper the seed is picked up by cups and deposited on revolving dial plate. This makes it simple to make any corrections necessary. Absolutely one piece of seed goes to each hill, thus making your seed go farther. Five years' tests demonstrate accuracy close to 100 per cent.

The O-K Canadian has equipment for correct depositing of fertilizer. Furrows are opened by two shoes. The first opens a trench to receive the fertilizer. The second shoe opens the furrow deeper, mixing fertilizer thoroughly with earth, thus protecting seed when dropped. This is correct and necessary for proper fertilizer results.

You certainly ought to get full particulars about the O-K Canadian, the machine that will enable you to put in more acreage into this profitable crop at low cost. Write to-night for free literature giving full particulars of O-K Canadian Planters and Diggers.

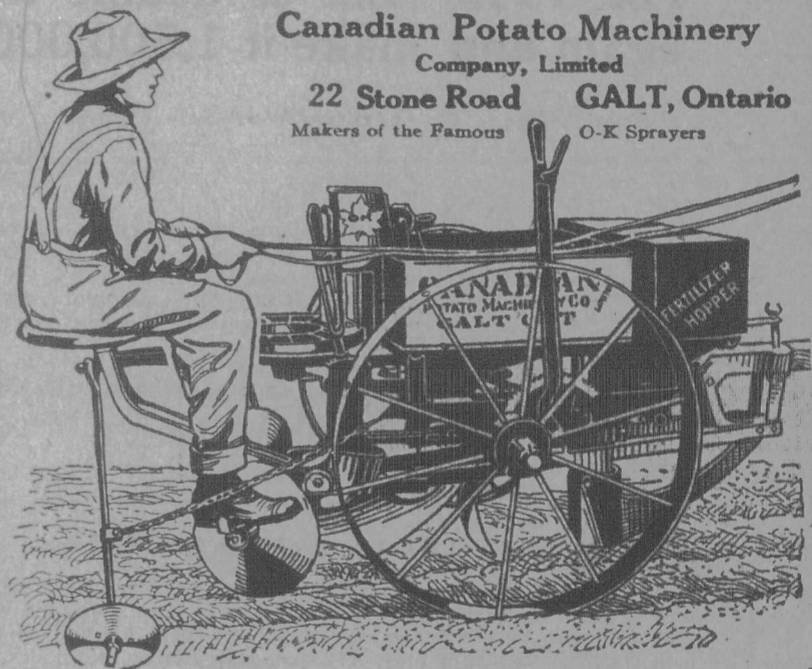
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The rings with a record of eight years successful performance behind them. Power producers because they create uniform pressure all around the cylinder wall, leaving no place for the power to slip past.

Wherever you are you can get McQuay-Norris Leak-Proof Piston Rings to fit any car, truck and tractor. Jobbers and supply houses in over 300 distributing points carry complete stocks of standard sizes and over-sizes, backed by a factory stock of 2,000 unusual sizes. The rings are ready, awaiting your order.

Send for Free Booklet "To Have and to Hold Power"—a simple, clear explanation of piston rings, their construction and operation.

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This brand of fertilizer is noted for high plant food value and the analyses are guaranteed by us and by Government regulation to be full strength. We have the right Fertilizer for every soil and every crop. Make your farm a good farm; make your yields big on every acre and for every crop. You can do it by judicious use of Best-by-Test Fertilizers. Get your order in early; don't take a chance on a shortage. Farmers should club together and order in car load lots.



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1919 Co-Operative Wool Sales

Ontario Sheep Breeders—Market your Wool this year through the Provincial Association Sale at Guelph

PAST RESULTS

In 1917, the first year that wool was sold through the Association, some 300,000 pounds were sold from 1,416 shippers, at record prices for Ontario.

In 1918, over 750,000 pounds were sold, from 3,845 shippers, again at record prices, as shown by table below. It will be noted that all grades of wool, including rejects and tags, averaged net to the seller (not including freight and membership) 65½c. per pound. All grades (excepting rejects and tags) averaged 68½c. per pound. All grades (except tags, rejects and 100,000 pounds of coarse wool) averaged 70c. per pound.

For 1919—Let us double the figure again and make it 1,500,000 pounds

Study These Co-operative Wool Sale Figures.

Grades of Ontario wool	American fixed prices on scoured basis	Estimated average per cent. shrink of Ont. wool	American price per pound at Boston for Ont. grades	Selling price obtained by Ont. wool growers	Net price to Ontario wool growers with 3½% selling charges deducted
Med. Combing.....	\$1.40	47 %	74.2c.	76¼c.	74c.
Med. Clothing.....	1.37	46½%	73.29c.	73½c.	71c.
Low Med. Combing.....	1.28	44½%	71.04c.	73¼c.	71c.
Low Combing.....	1.17	44 %	65.52c.	67c.	65c.
Coarse Combing.....	1.07	44¼%	59.65c.	60¼c.	59c.

What the Selling of Wool According to Grade Means.

It is true that where buyers gave a flat price for wool, the growers of coarse wool sometimes obtained a higher price than the market demands would warrant. As will be readily seen, however, any average price paid for any commodity must be such that the loss on a lower grade of article must be made up by a profit on a higher grade. Therefore, it is evident that the growers of fine wool in selling at a flat price, sacrificed a certain portion of the true value of their wool in order that the growers of coarse wool might receive a price higher than their grade of wool would warrant.

The co-operative selling of wool by grades is intended to put the wool trade on a proper basis and give each grade its true market value. It should moreover be borne in mind by the wool grower that co-operation has brought the price of wool up to a level which it could not have attained if co-operation had not been employed, and herein lies the secret of the reason the flat price paid by some buyers had to be somewhat above the true market value of coarse wool. It must also be remembered that the grower of coarse wool benefits by the greater weight of coarse wool fleeces in comparison with fine.

The first and primary object of selling wool on a graded basis must always be kept in mind and that is, that all wool shall be properly graded according to the market demands, and that each grade shall be sold upon its merits and that the growers of wool shall receive the true market value of their product. Only when this object has been accomplished will the marketing of wool be on a satisfactory basis. It is, therefore, evident that the principle underlying co-operative marketing of wool, is sound and beneficial to growers, and it is to their mutual benefit to stand together and sell their wool on a graded basis through their own Provincial Association.

The development and prosperity of the industry depends entirely upon the united efforts of individuals engaged in raising sheep and in order to obtain this united effort, it is clear that if every sheep raiser in the province, were a member of the Ontario Sheep Breeders' Association, the best results could be accomplished. This Association through its officers and directors have influenced legislation for the protection of sheep and are constantly endeavoring to protect the sheep owner and this is why a small membership fee is deducted from each shipper's returns for his wool.

FILL IN THIS COUPON—CLIP IT OUT—AND MAIL IT TO-DAY

Mail it to your District Representative or to R. W. Wade, Secretary, Ontario Sheep Breeders' Association, Parliament Buildings, Toronto.

Dear Sirs—Please send me Application Form for Ontario Sheep Breeders' Association Wool Sales at Guelph.

Name

Address (in full) County

A World-wide Market

As this wool will be sold through the world-wide facilities of the Canadian Co-operative Wool Growers' Limited, which in 1918 sold 4½ million pounds of Canadian wool for the various Provincial associations, the large and effective selling machinery at the disposal of the Ontario wool grower who ships his wool to the Ontario Sheep Breeders' Association at Guelph, will be readily noted.

Plan Under Which Wool Will be Marketed by the Ontario Sheep Breeders' Association, for 1919.

1. Application Forms may be obtained from the Representative of the Department of Agriculture in your county or from the Secretary's office, Parliament Buildings, Toronto, and should be filled in and returned at as early a date as possible.
2. Wool will be received at the Winter Fair Building, Guelph, between May 1st and July 15th, 1919.
3. The fleece should be placed with the clipped surface down. Then fold in the sides and roll from each end to the centre, after having carefully removed the dung locks, and then tie with paper wool twine. Never tie fleece with sisal or ordinary binder twine, and avoid tying with neck portion. The dung locks should be placed in a separate sack from the fleeces.
4. The fleeces should then be packed in wool sacks, or in case of small shipments of 15 fleeces or less use ordinary jute bran sacks, being certain the inside surface is clean.
5. Each shipper's wool is to be sent transportation charges collect, to R. W. Wade, Winter Fair Buildings, Guelph, Ontario.
6. An advance cheque will be sent to each shipper immediately after the wool is graded, this cheque will represent as nearly as possible the appraised value of the wool, less a margin to cover freight, membership, handling and selling charges. A cheque for the balance due each shipper will be sent as soon after the completion of sale as possible.
7. Membership fees will be deducted from proceeds of wool as follows: For those having 15 fleeces or less 50c. For all those having 16 fleeces or more, \$1.00. The latter class of Members will be supplied with wool sacks, and all shippers supplied with paper wool twine after they make application.

The shipper is assured of the highest price obtainable in the world's markets, less only the following expenses:

1. Selling charges by the Canadian Co-operative Wool Growers' Limited. These selling charges are actual costs only but cannot be stated exactly at this time. Last year they amounted to 1¼c. per lb. Any shipper can find out what they are likely to be, however, by writing to his District Representative before shipping.
2. Transportation charges to Guelph.
3. Membership Fee to the Ontario Sheep Breeders' Association.
4. Actual charges for handling and grading, supplies, printing, sacks, twine, labor, etc., which will all amount approximately to 1c. per lb.

In sections where a number of shippers can combine their shipments in a car lot, it will effect a saving in freight and cartage. The Association has a siding direct to the Winter Fair Building, Guelph.

The Directors of the Ontario Sheep Breeders' Association are: J. D. Brien, Ridgetown; James Douglas, Caledonia; E. Robson, Denfield; J. E. Cousin, Harriston; W. H. Beattie, Wilton Grove; Cecil Stobbe, Leamington; George L. Telfer, Paris; James Bowman, Guelph; H. M. Lee, Highgate; W. Whitelaw, Guelph; J. W. Springstead, Abingdon. The Officers are President, George L. Telfer, Paris; Secretary, R. W. Wade, Parliament Buildings, Toronto, Ont.

THE ONTARIO Department of Agriculture

HON. GEO. S. HENRY
Minister of Agriculture



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