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LIV.

LONDON, ONTARIO, MAY 1, 1919.

No. 1388

Canada now has good flour because  
 Canada grows the best wheat. The  
 choice of this good wheat is used for

**PURITY  
 FLOUR**

(Government Standard)

**"More Bread and Better  
 Bread and Better Pastry"**

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

Purity Oats are also milled from selected grain

WESTERN CANADA FLOUR MILLS CO. LIMITED

TORONTO

ONTARIO



# THE JOHN DEERE — DAIN HAY LOADER

"THE ONE-MAN HAY LOADER"

THE ORIGINAL RAKE-BAR HAY LOADER

SIX AND EIGHT FOOT SIZES

See your nearest John Deere dealer at once so as to be sure and have your machine in plenty of time. Illustrated literature can be obtained from him, or by writing direct to



The Most Simple and Efficient Rake-Bar Hay Loader on the Market.

ASK ANY USER OF THE DAIN How it compares with other Loaders?

HE WILL TELL YOU

That it is absolutely in a class by itself.

Many of our competitors have tried to imitate the exclusive working characteristics of this machine, but none have acquired the outstanding features that have placed it in such demand by the particular, up-to-date farmer.

Probably your neighbor has one of these loaders. Ask him to give you his frank opinion as to the work it will do. If not, your nearest John Deere dealer will gladly illustrate this machine to you and give you any information which you might desire.

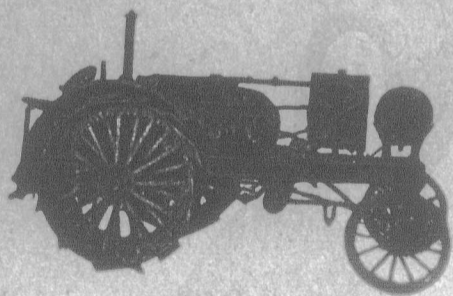
Investigate the Automatic Throat Opening which allows it to adjust itself to handling light or heavy hay from swath or windrow without choking. Also the Force Feed Delivery which makes it easy for one man to build the load and handle the team.

JOHN DEERE MANUFACTURING CO., LIMITED

WELLAND

ONTARIO

## Tractors and Threshers



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



Individual Farmers' Threshers, suitable also 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 Threshers.

## ASPINWALL One-Man Potato Planter

THE first successful Potato Planter. Automatic, fast and accurate. Opens furrow, plants, covers and marks next row. Needs no watching. Just drive.

Plants More Acres per Day

Does all the work—all the time. Attachments for peas, beans and fertilizer furnished when desired. Write for FREE BOOK of valuable information. Also folder illustrating the complete Aspinwall line: Cutters, Planters, Sprayers, Diggers and Sorters.

World's oldest and largest makers of Potato Machinery.

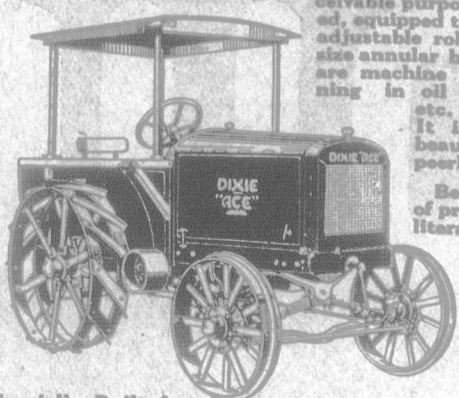
**ASPINWALL CANADIAN CO. LTD.**  
Dept. A - Guelph, Ont.



## The DIXIE-"ACE" The "ACE of TRACTORS"

AT LAST A Tractor that really fulfills all the hopes and expectations of the Ontario farmer. A Tractor that will do Field, Belt and Road Work, —not only under favorable conditions, but by reason of new and exclusive design will give 100% service, even under abnormal conditions.

The DIXIE-"ACE" incorporates epoch-making inventions, one of which is our clogless, sure-grip drive wheel that does not pack the soil like other wheels. The design and equipment of this wheel gives efficient traction where other tractors fail. The DIXIE-"ACE" is built like a battleship,—to stand up under the hardest service. It has four speeds, from one to five miles per hour,—a speed for every conceivable purpose,—it is spring mounted, equipped throughout with Timkin adjustable roller bearings and over-size annular ball bearings,—all gears are machine cut nickel steel running in oil in dust-proof cases, etc. Anyone can operate it. It is beautiful in design, beautifully finished and peerless in performance.



Specially Built for the Eastern Canada Farmer.

Made in Canada 839 York Street  
83 GUELPH, ONT.

**Gilson Mfg. Co. LTD.**

## Kiln-Dried Seed Corn

That will grow. Government test, 100%. Your money back if not satisfied.

**DARCY E. BONDY** - Arner, Ontario  
'Phone 63-41, Harrow, Ont.

**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

A Big Wash with Small Effort



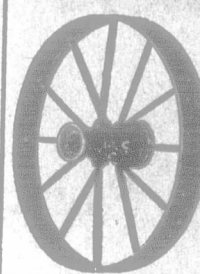
## CONNOR "CANADA FIRST"

Just think of being forever rid of Wash-Day drudgery and doing the big washing in a few hours which formerly took all day. The Connor "Canada First" Washing Machine runs so smoothly and easily that Wash-Day is now Wash-Hour, and the hard work has vanished.

Ask your dealer to demonstrate this machine to you. It will surely solve your Wash-Day problems. Beautifully illustrated booklet on request.

**J. H. Connor & Son, Ltd.**  
OTTAWA, ONTARIO

## Steel Wagon Wheels



Send for our illustrated circular and price list describing our STEEL WAGON WHEELS. Our wheels are made to fit any size axle or skain. We quote price delivered to your nearest station, no matter where you live. Satisfied customers in every Province using Cooke's Wheels. Will send free with circular, chart showing how to take measurements correctly, also customers' testimonials. Write to-day.

**THE COOKE METAL CO.**  
19 West Street Orillia, Ontario



# IDEAL Fence

Made in Canada

## Freight-Paid Prices

Direct from Factory to Farm

### 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, 10. Per Rod..... **37½c.**
- No. 6300 6 line wires, 30 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 4, 5, 6, 7, 8. Per Rod..... **42c.**
- No. 6400 6 line wires, 40 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 7, 7, 8, 9, 9. Per Rod..... **43c.**
- No. 7400 7 line wires, 40 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 5, 6, 6, 7, 7½, 8½. Per Rod..... **49c.**
- No. 7480 7 line wires, 48 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 5, 6½, 7½, 9, 10, 10. Per Rod..... **51c.**
- 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.**
- No. 842 8 line wires, 42 inches high, uprights 16½ inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 6, 6, 6, 6, 6, 6. Per Rod..... **61c.**
- No. 8470 8 line wires, 47 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 4, 5, 6, 7, 8, 8, 9. Per Rod..... **58c.**
- 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, 8, 9. Per Rod..... **63c.**
- No. 935 9 line wires, 35 inches high, uprights 16½ inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 3, 3, 3, 4, 5, 5, 6, 6. Per Rod..... **70c.**
- No. 948 9 line wires, 48 inches high, uprights 16½ inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 6, 6, 6, 6, 6, 6, 6. Per Rod..... **69c.**
- No. 9481 9 line wires, 48 inches high, uprights 13 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 3, 4, 5, 6, 7, 7, 8, 8. Per Rod..... **77c.**
- 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.**
- No. 641 6 line wires, 41 inches high, uprights 16½ inches apart. All Hard Steel Wire, evenly galvanized. Spacing 7, 7, 8, 9, 10. Per Rod..... **31c.**
- 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, 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.**

### "IDEAL" Poultry Fence

Top and bottom wires No. 9, all others No. 13. Carried in stock in 10 and 20-rod rolls.

- 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, 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	3.50
3½	42	3.60
3½	48	3.75
4	48	4.00
10	36	6.75
10	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
Hand Stretcher, each.....	7.75
Universal Post Hole Digger, each.....	2.75
Galv. Staples in 25-lb. boxes.....	1.75
Galv. Staples in 100-lb. boxes.....	6.75
No. 9 Brace Wire, per 25 lbs.....	1.50
No. 9 Coiled Spring Wire, per 100 lbs.....	5.75

### Barb Wire

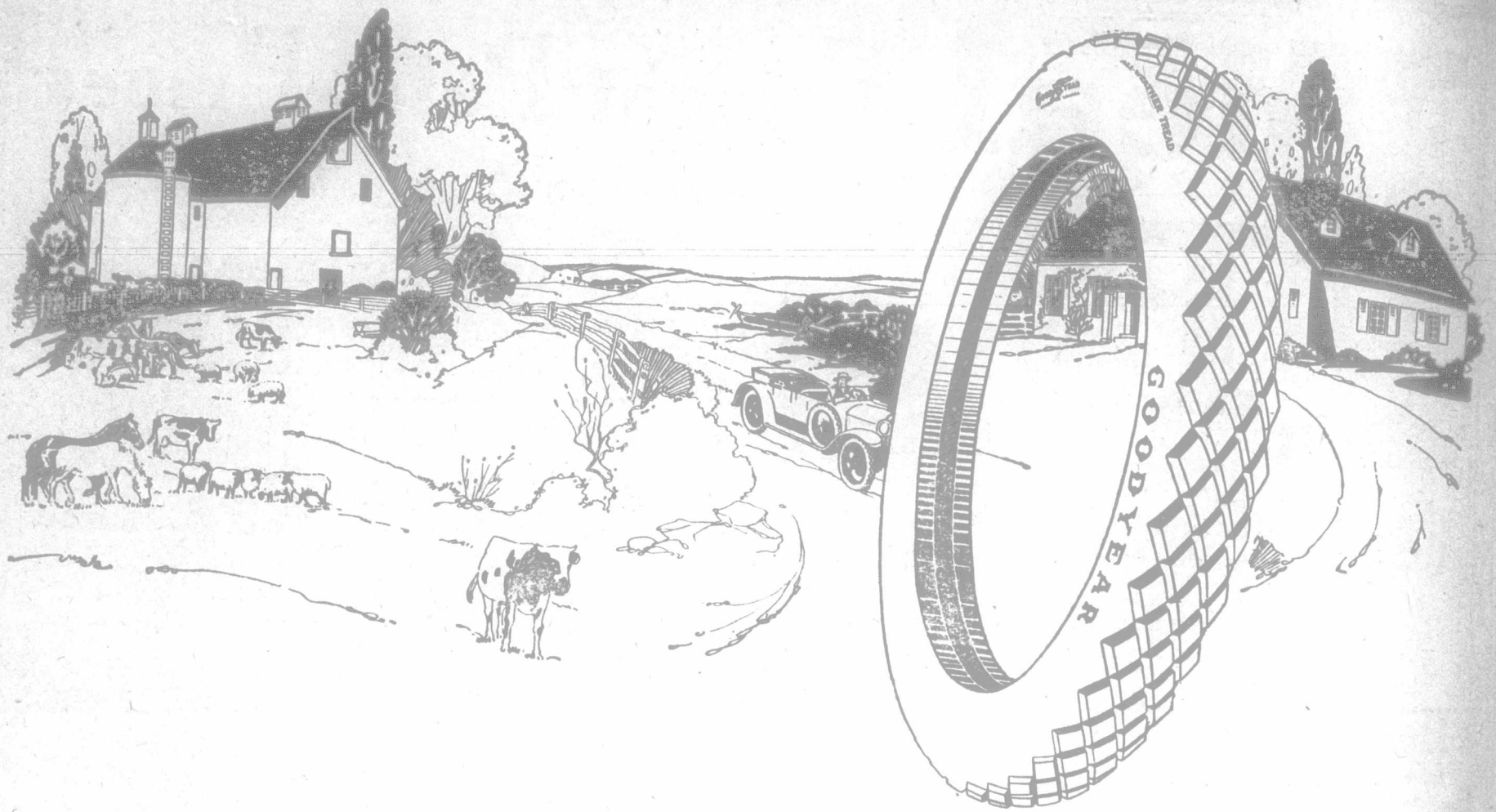
4-pt. 4" Galv. Cabled, per 100 lbs.....	\$6.00
4-pt. 6" Galv. Cabled, per 80-rod spool.....	5.10
2-pt. 5" Galv. Cabled, per 80-rod spool.....	4.80

N.B.—Prices quoted above apply to Old Ontario only, stations south of North Bay. Freight-paid prices to points in New Ontario and elsewhere quoted on application.

## IDEAL FENCE AND SPRING COMPANY OF CANADA, LIMITED

1050 McDougall Street - WINDSOR, ONTARIO  
(Formerly The McGregor-Banwell Fence Co., Limited, Walkerville, Ont.)





## You Can't Feed Your Stock on Straw

Straw costs a lot less than hay and grain—until you feed it to your stock. Then the cost of straw shoots up—in lost stock and in sickness.

Tires are just about the same. Lots of tires are priced lower than Goodyears. It's pretty hard to resist that low-price bait—until it's time to buy another tire. Then you wonder how you wore out that tire. It didn't *wear out*—it *gave out*. Wear was never put into it.

Few car-owners frown when a Goodyear Tire finishes its service to them. They have learned what we mean by lower tire-cost-per-mile. They lay aside a Goodyear Tire with much the same feeling

with which you turn out to retiring pasture a horse which has served you long and faithfully.

*Value delivered.* That is the one big reason why you see the diamond-shaped track of the Goodyear All-weather Tread on roads everywhere. Why the motorists of the world buy more Goodyear Tires than any other brand.

Next time you drive into town, stop off at the Goodyear Service Station. Learn there why Goodyear Tires are economical equipment for your car.

The Goodyear Tire & Rubber Company  
of Canada, Limited

GOODYEAR  
MADE IN CANADA





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# Feltol Floor Covering

**A**LTHOUGH moderate in price, will help make any home beautiful inside. The wide choice of patterns and colorings afforded by Feltol permits of a selection in keeping with any room.

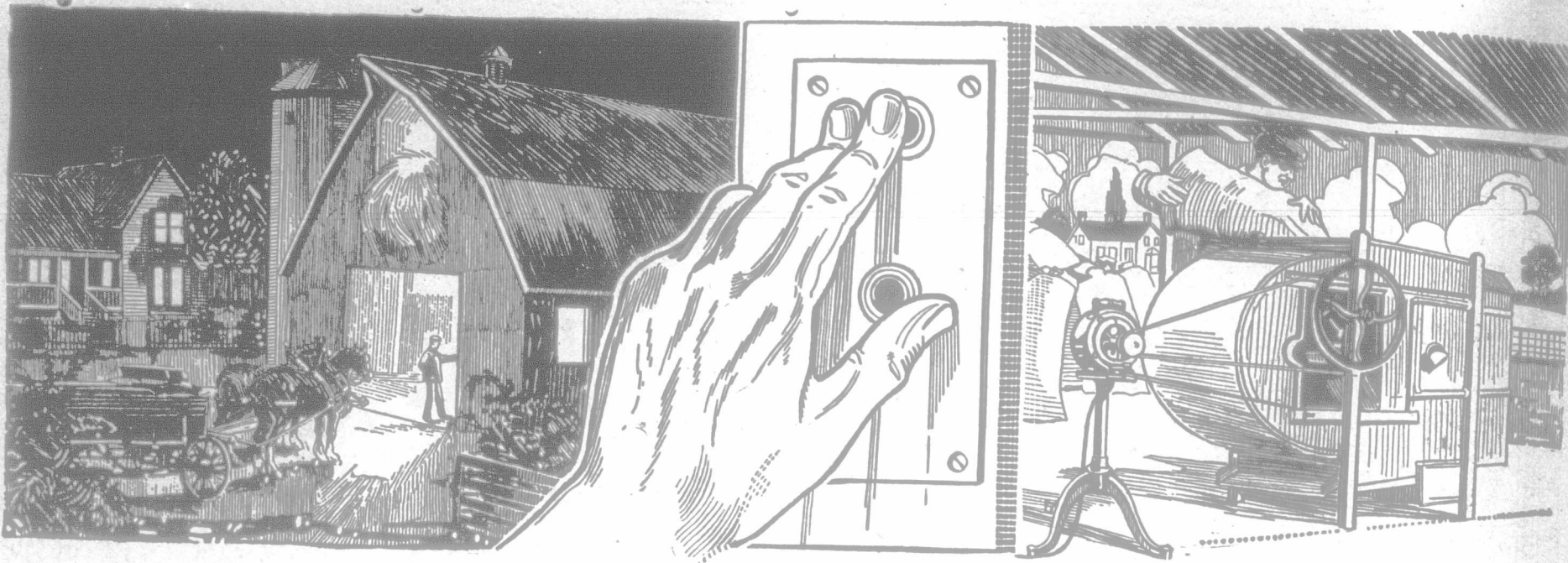
It is sanitary as well as beautiful. It wears well and may be waxed—is as easy to keep clean as linoleum. But Feltol is much less costly—so low in price that you can afford to have it on all your floors, halls, dining room, bedrooms and kitchen.

Give Feltol a trial on the soft wood floor you have been trying to make presentable. After several months' service in that one room, Feltol will have given such complete satisfaction that you will ultimately use it throughout the house.

*Feltol is not linoleum or floor oil-cloth—it is the best felt base floor covering made—superior to the best imported. At all the better stores where floor coverings are sold.*

MADE IN CANADA





## Farm Life is the Best Life— With Delco-Light

**F**ARM life should be the best life—the broadest, the happiest, the healthiest. It has advantages city life can never have. But farms need *electricity*. They need it to ease the burden of farm work. They need it to make more money. They need it to make farm work pleasant.

These things Delco-Light does on the farm.

And over 60,000 farms are better places to live; over 60,000 farmers make more money; over 60,000 farm families are healthier and happier because of Delco-Light.

Delco-Light gives you the clean, bright, trouble-free, *safe* electric

light of the city wherever you want it.

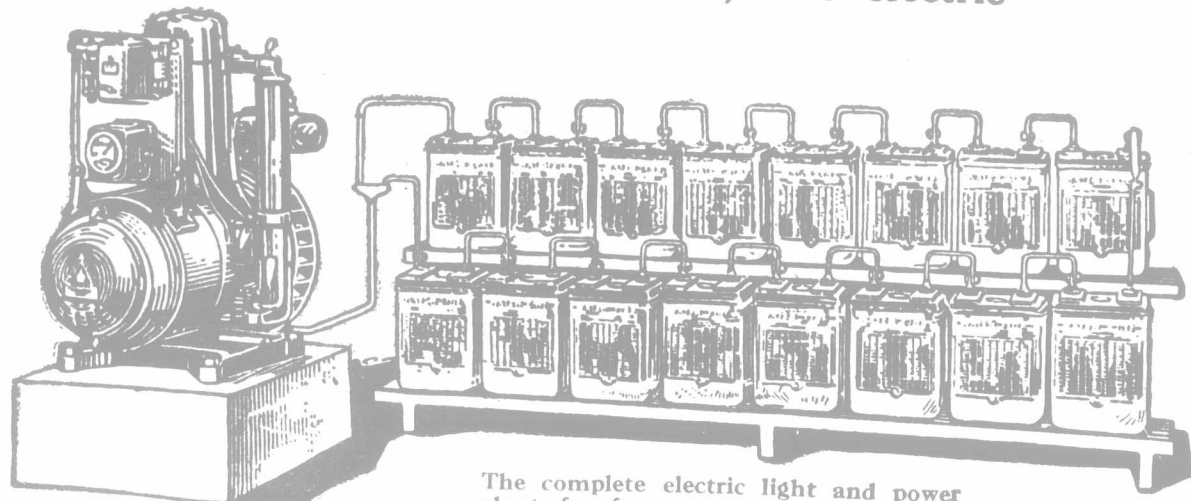
Delco-Light supplies power to do the irksome, time-wasting chores that were formerly done by hand.

Delco-Light lightens housework; attracts farm labor; keeps the young folks at home.

You should know *all* about Delco-Light. The nearest Delco-Light distributor has the whole story, ready printed for you. Illustrated with pictures that show what Delco-Light is and what it does.

Send for these free booklets.

The Domestic Engineering Co.  
Dayton, Ohio.



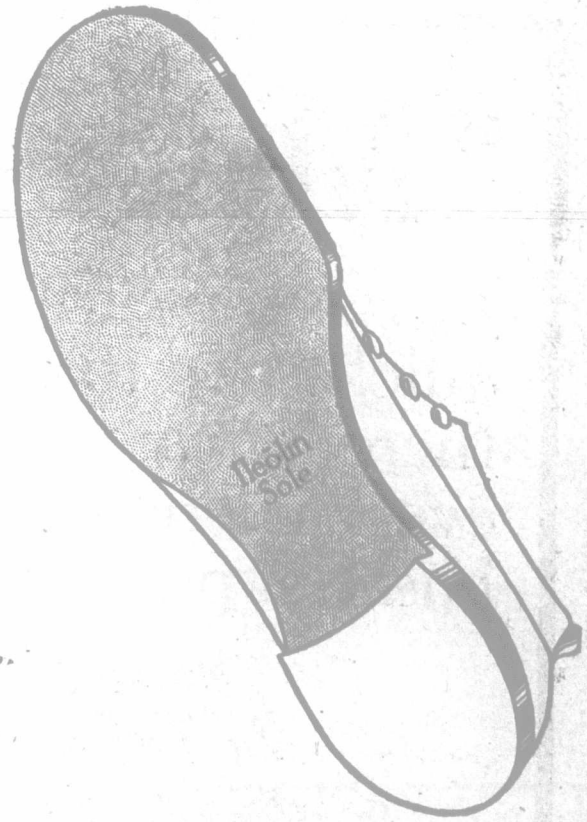
The complete electric light and power plant for farms and country homes.

Electrical Systems, Ltd.  
Toronto, Ont.

# DELCO-LIGHT



# Neolin Soles



## Peace-Time Production On Neolin Soles



IF you have been deprived of the comfort and economy of Neolin Soles, you will welcome the tremendously increased production of our factory.

War's urgent needs prevented us from securing additional heavy steel machinery. But now all bars are down. Steel has been available. Equipment has been multiplied. Production is on a peace-time basis. Shoe manufacturers can be supplied with all the Neolin Soles they need. Shoe merchants can show you all kinds of shoes with Neolin Soles. Every pair of shoes you buy or get repaired now can be Neolin-Soled.

Think what this means to you and your family in shoe economy, in comfort, in style.

Neolin Soles are flexible—even on sturdy, everyday shoes: they are long-wearing and waterproof.

Now you can have damp-proof shoes that are still light in weight and comfortable. On your Sunday shoes or on shoes for heavy work, around the farm have Neolin Soles. Get them for the children and suggest to your wife that she try them.

Neolin Soles — half-soles and full soles—are nailed or sewn on all kinds of shoes by manufacturers, repairmen, and at home.

Neolin Soles have been a great success. So they have imitators. But the methods and materials that make Neolin Soles superior are known only to Goodyear. You can be sure of Neolin Sole quality only when you see the trademark "Neolin" on the bottom of the sole.

The Goodyear Tire & Rubber Co. of Canada, Limited

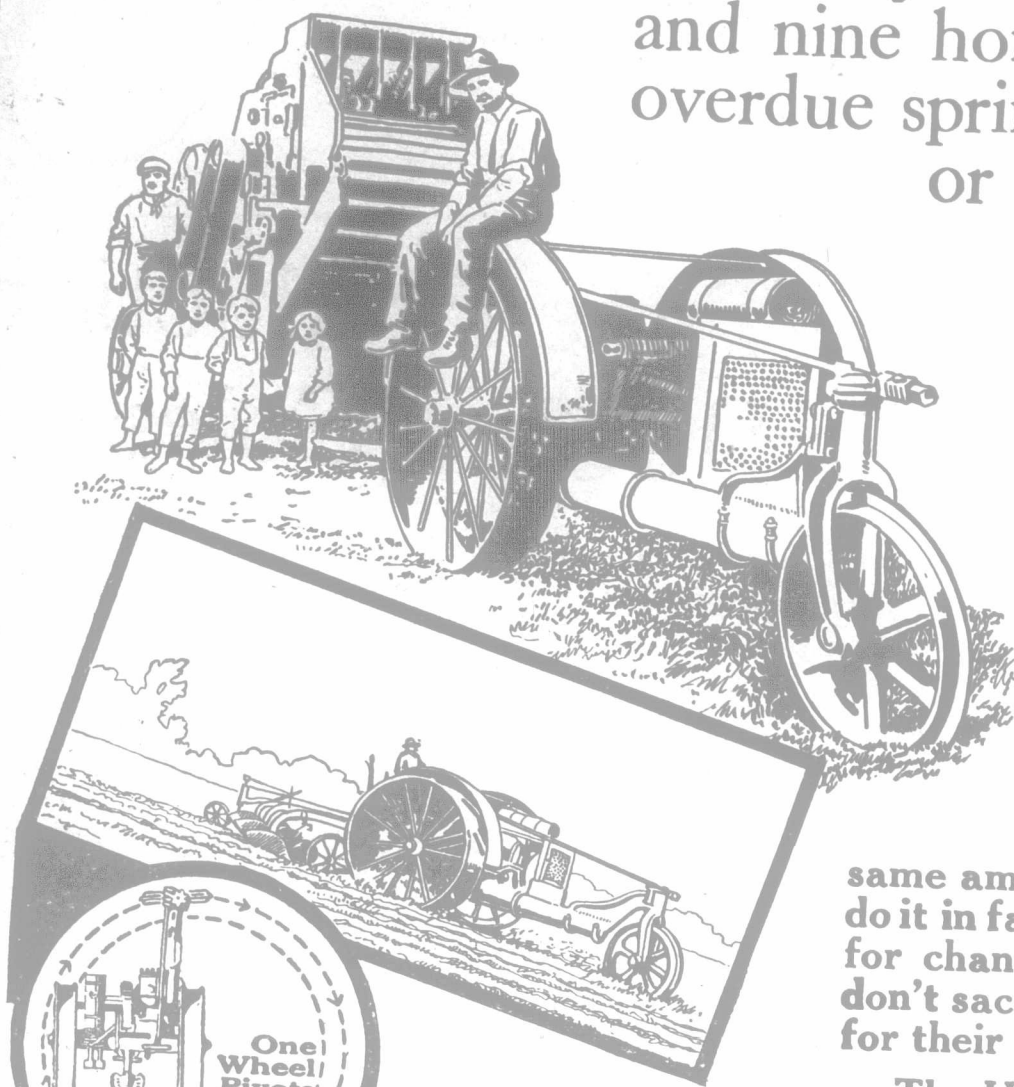


This price ticket will mark for you the store where shoes with Neolin Soles are in stock.



# "More Power to Ye!"

Just as the early bird gets the worm so does the farmer quickest to market get the high prices. And they get there by tractor power. Is it any wonder that farmers everywhere are buying Happy Farmer Tractors! As a business proposition would you rather put three men and nine horses (3 teams) on your overdue spring plowing or harvest or put on one man and a



## Happy Farmer

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

The Happy Farmer Tractor—we emphasize Happy Farmer for a reason—will not only do the same amount of work as the horses, but will do it in far less time. There is no waste time for changing and resting horses, and you don't sacrifice five acres of crop per horse for their up-keep.

The Happy Farmer is light weight, only 3,700 pounds, and is as easy to move around the farm as a team. Unlike the usual ponderous tractor, it is "all-around handy" for plowing, discing, harrowing, spreading manure, filling silo, threshing, sawing wood, grinding feed—everything.

Its light weight, simple design and perfected kerosene engine mean more power on the draw bar than that of any other tractor of similar size of engine.

competitors. Over and over again it has beaten them in results, and in saving of time and fuel. In plowing, the hardest of tests, it pulls three 14 inch bottoms at an average depth of eight inches. It gets the work done and saves time in awkward corners where others can't go.

Certainly you should investigate the Happy Farmer Tractor if you want to get more power for less money—and catch these early markets with earlier crops. "More Power to Ye." Write for free literature.

There are fewer parts to wear out and fewer to replace. Power is saved too in the specially designed transmission and in the oiling system. In short, you get more power for your money, both in first cost and in upkeep.

The engine gets the last kick of power out of cheap kerosene without smoke or carbon.

The Happy Farmer DOES THE WORK. Nothing helps the Happy Farmer so much as a heavy demonstration against

### One Wheel Pivots

**Turns in its Tracks**  
Means running furrows up to the fences, short turning with the hinder, or hauling around the yard. Self guiding in the furrow.

**The Renfrew Machinery Company, Limited**  
Head Office and Works, RENFREW, ONT.

Eastern Branch, SUSSEX, N.B.

AGENCIES ALMOST EVERYWHERE IN CANADA

Other lines: Renfrew Kerosene Engines, Renfrew Gasoline Engines, Renfrew Cream Separators, Renfrew 2000-lb. Truck Scales. 250



# The Farmer's Advocate and Home Magazine

PERSEVERE  
AND  
SUCCEED

ESTABLISHED  
1866

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

LIV.

LONDON, ONTARIO, MAY 1, 1919.

1388

## EDITORIAL.

### Test the seed corn.

Use grass where possible in pork production; it cheapens the cost.

Many of the soldier boys, remembering Kipling's lines, "Lest we forget," are bringing war brides home with them.

Our reconstruction Parliament drags along, evidently awaiting the Prime Minister's return. Meanwhile, the country is reconstructing itself.

A stroke of the harrows will help prevent the root and corn ground drying out, and the soil will work better when the time arrives for working the root land.

Plan for a good vegetable garden. Don't let other work crowd the garden out of your mind, as it is as important from a financial standpoint as any of the farm work.

The cultivating implements require oiling just as much as do the harvesting machinery. Oil not only prolongs the life of machinery, but it helps to make them draw easier.

The men who give the land an extra stroke of the cultivator or harrow usually reap a better harvest than those who skimp on cultivation in order to be first through seeding.

Preventing sore shoulders on horses is easier than effecting a cure once the shoulders become raw. Cool the shoulders, bathe them at night, and see that the harness is properly adjusted.

A few acres of mangels or turnips will provide excellent feed for the milk cows, feeding steers and hogs next winter. They are crops requiring considerable labor, but they are excellent stock conditioners.

Poultry has been introduced into the summer ration of the U. S. army, and it is reported that Europe is very short of poultry. There ought to be a good market for anything in this line produced this season.

According to the newer knowledge of nutrition growth factors are not found in all feeds, but are contained chiefly in milk, eggs and leafy plants. This seems to indicate that by-products of the dairy should be utilized as far as possible in the feed of young stock rather than sold from the farm.

Under private ownership the railroads had few officials high enough to require private cars, but under government ownership there is a danger of there being many. Last week there were three private cars attached to one train from Toronto to Ottawa, with the result that sufficient sleepers could not be drawn to provide berths for the travelling parliamentarians. Canada is apparently not yet safe for democracy.

Demand is creating higher prices for some farm products, such as hogs. During the war complaint was heard in regard to the farmer profiteering, but the reputed profits did not increase production or attract others to the land. If farming were made more profitable, production would be increased on account of more engaging in it, and consequently food would be cheaper to the consumer. At first sight this may appear paradoxical, but until the farming business attracts capital and labor, farm produce will sell high because of lack of supply.

### Sow Seeds of Progress.

Rural people as parents and as citizens of Canada, can no longer afford to ignore the great problems presented by the rural school. For the sake of our children and our children's children some concerted action should be taken to make the country school efficient and capable of educating the boys and girls for the battle of life which lies ahead. The seeds of agricultural progress will find most fertile soil in the rural school but the seed-bed must be prepared. Our children do not have the opportunity to which they are entitled and we must all share the responsibility for this neglect. In this issue Sinclair Laird points out some of the weak spots in the rural school and he will follow with articles telling where and how improvements can be effected. In our opinion this matter of rural education will never be satisfactorily settled until the people concerned arouse themselves and give expression to their ideas and desires. The demand for consolidated or community schools must come from the country, but the demands must be in harmony with actual conditions and the real requirements. How better could an understanding be arrived at than through a representative convention of farm men and women with ideas on this subject, who could well add to their numbers several of the teaching profession who have spent their life teaching, inspecting, and training young teachers? All these in conjunction with the Department of Education ought to be able to arrive at an understanding of the situation, and to build up a system of education for rural children that would, at the same time, equip the youth for country life or citizenship in any walk of life. We do not want education for country life only. The rural child must not be disqualified for any occupation or profession he may choose, but surely some system can be devised that will educate for citizenship rather than for the high school and the university. It is the ninety per cent., or more, who never go beyond the public school who should be given the most attention.

### The Muddle Known as Daylight Saving.

The half futile and half successful attempt of a certain element to force so-called daylight saving on the people of Canada has resulted in nothing short of a muddle, and a great inconvenience to the rank and file. The question becomes more muddled as the weeks pass, and by fall this daylight saving absurdity will surely be buried for good and all; that is, if the interests which are detrimentally affected do their part to see that it is effectually interred when the summer period expires.

In the first place, the railroads adopted new time, which practically forced it on to the country. Parliament turned it down by a large majority, and then it was adhered to by the House of Commons to avoid confusion because the city of Ottawa had set the clocks ahead. The Board of Railway Commissioners were asked for a judgment. They threw the responsibility back to the Government, who in turn, passed it to the provinces, and there it seems to be resting.

On April 19, Mr. Justice Logie quashed the city of London Daylight-Saving by-law on the ground that a municipality cannot override the laws of the province, which fix standard time as legal. In spite of this the Senate of Canada is playing with a bill, which in effect means daylight saving, but the sun will probably cross the equinox before any conclusions are arrived at by that august body.

Advocates of daylight saving have been remarkably solicitous for the working man. They wanted to obtain for him the opportunity to swap that blissful hour of sleep in the morning for an hour in the evening, when he could commune with mother nature in his backyard or garden. However, the laboring man is not so enthusiastic about the exchange as his benefactors would desire; for Hamilton, an industrial city, could not

carry a daylight saving by-law, and at a recent convention of the Independent Labor party of Ontario, opposition was expressed to the change of time. A plebiscite would, we believe, show labor generally opposed.

The argument concerning greater production in backyard gardens has fallen flat. Nothing more is heard in regard to saving fuel and electricity. Motoring, bowling, tennis and other sport enthusiasts have always been the loudest exponents of this so-called daylight saving fad, and it is owing to their influence, largely, that the by-laws have been carried in the towns and cities. Anyway, confusion, inconvenience and hardship is the general result and, before another spring comes around, it should be decided whether the provinces or Dominion is responsible for the time the people of Canada are to follow; then we shall know with whom to deal.

### The Live Stock Act.

On September 20, 1917, assent was given to what is known as The Live Stock and Live Stock Products Act. This measure when first conceived was intended to right many of the wrongs existing about stock yards and abattoirs, but when introduced to the House by the Hon. Martin Burrell in 1917 it was toned down and polished off so it became a very ordinary and quite acceptable Bill. Its enactment, at least, opened the way to progress, and last week the Hon. T. A. Crerar, Minister of Agriculture, introduced amendments to The Live Stock Act, which obtained their first reading. The original Act dealt largely with the stock yards, but the Governor-in-Council was empowered to make regulations prescribing the manner in which live stock, meat, poultry, eggs and wool shall be graded and branded or marked, the size of packages, etc. This part of the Act is being strengthened somewhat by two additional clauses, which add to the regulations prescribing:

"The manner in which live-stock products imported into Canada shall be inspected, graded, branded or marked,"

"When and where and by whom eggs shall be candled, and the evidence that shall be furnished that the eggs have been so candled."

It is well known to the trade, at least, that live-stock products, including eggs, are imported from far-away countries and sold to the Canadian consumer, who is unconscious of their origin and unaware of the facts concerning the product. There should be no effort made which will in effect mean a restraint of trade, but the public is entitled to know what it is buying and under what conditions the commodity was produced, transported and marketed.

A real Live Stock Act should carry power to place a greater check on the transactions at the stock yards and abattoirs than our present Statute does. Sales at the stock yards and quotations emanating therefrom are the only index to values the producer has to guide him in selling his product. During the last twelve months, however, stock-yards quotations have not been a true guide to the value of hogs, for the buyers have paid as much and more on the f. o. b. basis as hogs were quoted at fed and watered at Toronto. A large percentage of the f. o. b. hogs go direct to the abattoirs and are not registered at the stock yards. The question then arises, "What are hogs really worth?"

A system of grading hogs regulated under the Live Stock Act would be another boon to farmers and the country at large. When hogs are paid for according to quality, we shall be able to show some progress in our bacon industry.

Now that the Live Stock and Live Stock Products Act is under consideration it ought to be reinforced so it will effectively overcome the obstacles to development, and give us a measure upon which we can rely for fair play.



## 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 Journal,"  
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### The Real Pioneers.

More or less interest has centred round the report of the Railway Board concerning Daylight Saving and its adoption by the Canadian railways. A very significant statement is embodied in the report of the Deputy Chief Commissioner, W. B. Nantel, who says, in speaking of the railroads: "They really opened up this country, and after opening it up they adopted whatever time best suited their purpose. Their dictum was accepted by everybody, as everybody depended upon them in almost every instance of their daily life."

We have long been of the opinion that the pioneers, who hewed homes out of the forest, far in advance of steel, opened up this country. We have long considered the homesteader, who went miles and miles in advance of railroads, as the real nation builder and the one who opened up the wilderness. Railroads do not have the habit of opening up new country for the sake of settlers who may come later. The settler goes first, and after years of privation and hardship a railroad may come his way, provided it is sufficiently subsidized or bonused by the Government. The Deputy Chief Commissioner is correct when he says: "Their dictum was accepted by everybody." However, the acceptance never indicated any great confidence in the railroads. Their dictum has been a law subscribed to out of necessity, and they have ruled because the railroads have exercised more power than the Government itself.

### Optimism and Common Sense.

BY ALLAN McDIARMID.

There's something inspiring in reading or hearing of men who have done great things in their particular line of work. There is nothing like example to coax us on to our best efforts. Of course, those of us who have had some little experience with the ways of the world know that inspiration isn't of much good to a man who hasn't will-power and perseverance enough to follow up his high resolves by hard work. But most of us need, at some time or other, a little encouragement and incentive to bring out our best efforts. It's at the beginning of most of our enterprises; the way they will turn out depends on the kind of man we happen to be. I've talked to men who seemed to be able to convince almost anyone that the particular scheme they were interested in was bound to succeed and would make the fortune of any man who knew enough to invest his money in it. One individual I have in mind was able to start two or three real-estate booms in his town, just through his ability to inspire every one he

met with his own optimism. These land booms all gradually died away because there was no real foundation for them in the actual conditions that had to be faced.

And I've seen farmers who would almost make one believe that black was white, so convincing were they when it came to telling of how much money could be made out of hogs, or it might be horses, or beef cattle or even dairying. Their theory was O.K. and apparently failure was an impossibility, and it was only the man who had had some experience in these lines of business that could remain unconvinced by their plausible arguments.

They say that "Hope springs eternal in the human breast," and it certainly seems to be true in the case of this type of man. There's no discouraging them. I recall the case of one farmer of my acquaintance who made a little money one summer on a number of young cattle that he bought and fattened for the fall market. The next year he went into it wholesale. He bought stock wherever he could get them and without much thought of the price. When the time came to take them off the grass the market was flat, and he determined to keep them until things took a change, as he was sure they would before long. So he fixed up stables to shelter his stock and bought fodder for them, as he had very little of his own on hand, with the result that before he was able to get rid of them they had "eaten their heads off," as the saying is, and he was out about a thousand dollars, to say nothing of the work and worry in connection with the whole undertaking.

But it didn't kill his enthusiasm. At least not along other lines. Some time later, having had good luck with his potato crop, he got it into his head that there was a fortune in the business if one just had potatoes enough. So, that spring he planted about twenty acres of them. Between looking for men that he could hire to help him and working in the fields himself, he had a pretty busy summer of it. And that fall and winter potatoes were such a drug on the market that he could hardly give them away. In fact, I believe that was what he finally had to do with some of them. His stables were full of potatoes as well as his cellars, and he must have been sick enough of the sight of them to cool off a little, for that was the last year that he raised more than enough for his own use.

All the same he wasn't cured. When the war sent beans up to seven and eight dollars a bushel it looked to him like a dead sure thing that here was his chance to become wealthy enough to retire from active life after taking off about two crops. Almost any kind of land will grow beans, so he put in all the ground he could get plowed; the war came to an end before his crop was ready for market, but possibly the beans will keep until the next European scrap comes on.

Now, I am not trying to make out that enthusiasm and an optimistic spirit are not a good thing. On the contrary they are about the best endowment a man can have. All that is necessary to go with them to make a good combination, is a little common sense, or good judgment. Where you find the two together you find the result in a successful business.

I read of a case just recently that is a pretty good illustration of this idea. It was a story of a man who has won the reputation of being the best farmer in the State of Massachusetts, across the border.

He is a man who must have any amount of push and energy but with, at the same time, the practical knowledge and good sense that we have seen is necessary to insure success. This success has been in connection with some of the poorest specimens of the abandoned farms of New England. He was a farmer who pinned his faith on two things, and these were live stock and machinery. His "live stock," however, did not include many horses. He has only two teams on his present farm of one thousand acres. Cows seem of more importance to him, and he keeps fifty of them.

It was when at home on his vacation, during his second year in college, that he first got the idea of farming. A mortgage sale of 160 acres of land near his home was brought to his attention. He bought it and worked it that summer, and then decided to quit college for good and go farming. Once started he went the limit of his money and credit. He bought the three adjoining farms for eight dollars an acre, as they had not been cultivated for twenty years and were divided off into little fields of from two to five acres, surrounded by stone fences. His whole farm is, to-day, worth between sixty and seventy dollars an acre.

The ground was full of boulders, with all kinds of underbrush growing through the fields. The way he went about clearing this land was to buy a nineteen thousand pound tractor and set it to work with an eighteen hundred pound plow, rooting out the stones and tearing up the brush. This outfit would turn out a half-ton boulder or root up young trees as big as a man's leg. Clearing his land in this way he estimates that he saved over \$5,000 as compared with doing it by horse work.

By the use of fertilizer and all the stable manure he could get, he brought the farm back to something even better than its original fertility. It has become a paying institution. Our ex-college man's optimism has been justified by the results of his thought and energy.

Taking advantage of up-to-date ideas and inventions too much for the ordinary farmer. Even the question of hired help doesn't bother him. This he puts to the credit of the tractor. Men will stay on a farm where tractors are used when they wouldn't if it was a case of using the slower going team of horses. Another attraction about the place for the hired man is the fact that all the milking is done by machinery. He has

ten men employed the year round and seems to be able to keep them all contented. They have, apparently, caught something of the spirit of their employer. Certainly enthusiasm is contagious, and, where it develops into practical, worth-while results, deserves about nine-tenths of the credit for what mankind is accomplishing to-day. And the result of it and the lack of it have no better examples than are to be seen on the farms and about the homes of those of us who are making our living "out of the soil."

### Nature's Diary.

A. B. KLUGH, M. A.

#### Birds of the Week.

The Tree Swallow is the earliest of the swallows to arrive, usually coming about a week in advance of the Barn Swallow. The Tree Swallow may be recognized by its green back and white breast, and its name is derived from its habit of building its nest in holes in trees. Such a location was its sole nesting-site in aboriginal times, but now-a-days it is quick to take advantage of holes in telegraph poles and bird-boxes.

In regard to its food the Tree Swallow is unique among the swallows in taking a considerable proportion of vegetable food. Most of the swallows are entirely insectivorous, but in this species vegetable food makes up about 20 per cent. of the total food for the year. This vegetable food, however, consists entirely of wild fruits of no economic value, more than nine-tenths of it consisting of the berries of the Wax Myrtle, a shrub which is very common in the Atlantic coast region. Of the animal food of this species beetles make up 14.39 per cent., and of these only 0.97 per cent. consists of beneficial species. It is obviously very important in determining the economic status of a bird to know not only the percentage of insect food taken, but also what percentage of this insect food consists of beneficial insects, of neutral insects, and of injurious insects. A bird may be exclusively insectivorous, and yet not decidedly beneficial, for if it eats as many beneficial insects as it does injurious ones it is probably doing more harm than good, because these predaceous and parasitic insects are the main factor in controlling the undue increase of the injurious ones. Flies of various kinds make up 50 per cent. of the food of the Tree Swallow, moths 5 per cent., and the rest of the insect food consists of an assortment from practically all the orders of insects.

The White-throated Sparrow in one of our most beautiful musicians, and its exquisite minor whistle is one of the characteristic sounds of northern woods. A good many people know the voice of this bird, but do not recognize the singer. The White-throat in adult plumage may be known by the white patch on the throat and the white lines on the head, but in young birds this white throat is lacking and we have to fall back on what may be termed the recognition marks of the species, which are a white stripe down the middle of the crown and a yellow spot in front of the eye.

The Fox Sparrow is a large and handsome species which in the southern portions of the dominion is seen only during the migrations. This species may be recognized by its large size, reddish-brown tail, and heavily spotted breast. It is a bird of the woods, breeding in the dense forests from Labrador to Alaska, and even during migrations keeping mostly to the wooded country. Its song is a beautiful liquid melody. The main food of this species consists of wild fruits, and it consequently has little influence, either harmful or beneficial, on agriculture.

The Barn Swallow is probably the best known of all the swallows and may be recognized at a glance by its forked tail. In some sections of the country the right of this bird to a nesting-site on the rafters of barns is so well recognized that when a new barn is built a hole is cut near the gable-peak so that the birds may easily pass in and out. The food of this species consists almost exclusively of insects, the only vegetable food that is taken being an occasional fruit of the Elderberry or of the Silky Cornel, which makes up less than 2/10 of 1 per cent. of its total food; 16 per cent. of its food consists of beetles and of these 3.4 per cent. are beneficial species. Bugs, that is insects belonging to the order Hemiptera and thus being bugs in the true entomological sense, make up over 15 per cent. of its food, and of these the favorite kinds are those known as "Stink Bugs" or "Berry-bugs" which to the human palate are decidedly unpalatable and nauseating, a fact which is often brought home to us somewhat impressively when eating raspberries without a careful inspection. Flies make up about 40 per cent. of its food, and among these are such farm pests as the horse-flies, and the robber-flies which are destructive to honey-bees.

The Spotted Sandpiper is without question the commonest of the shore-birds throughout the country at large as there are few little creeks which do not have their quota of this species living along their banks. It is known by a great many different names, such as "Snipe", "Teeter-tail", "Peep", and "Peet-weet."

At the end of the month the first of the Warblers arrive, the first of that gay company of brilliant little birds which throng our woods during the later part of the spring migration. This group is the despair and yet the delight of the amateur ornithologist. There are so many species and each species has so many different plumages that the ability to recognize all the Warbles in all their plumages is regarded as one of the surest tests of one's ornithological standing. The Black and White Warbler may be recognized from its name—it is black and white in streaks all over, the Black and Green Warbler has a black throat and yellow sides to the head and the Myrtle has a yellow spot on crown, rump and each side of the breast.

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# The Rural School, Past and Future.

**F**IFTY years ago, the rural schools in eastern Canada were remarkably efficient and satisfied the needs of that time. Old people who know this are opposed to any change now, but many things have changed in the last fifty years, and the rural school has rarely kept pace with the changes.

Cities have developed rapidly in wealth and in population. City schools have been graded and have developed carefully organized courses of study. Uniform text-books were introduced into city schools, and also new subjects of instruction. As wealth increased, cities developed better and more expensive public schools, then high schools and laboratories and kindergartens. They could afford to pay high salaries for the best teachers, and so secure them. In short, the city schools have been changed and improved at a very rapid rate to suit the city conditions. Gradually, this has had the inevitable result of making cities dominate all our educational systems and forcing rural education into the background. Teachers flocked to highly-paid city positions. Text-books kept city requirements in view, and finally rural schools degenerated from the fairly efficient type suitable in primitive times, to second-hand imitations of rural schools, such as we have in many places to-day. The chief fault is that they are only complementary to city schools, whereas they should teach what the farmer and his wife need to know.

In this connection another fault arises. Provincial departments of education have gone mad with worship of uniform text-books. They should rather worship good teachers, but they pin their faith on uniform text-books, especially cheap text-books; the cheaper the better. The cheapest horse is not usually the best one; but rural people are expected to believe that the best school books are the cheapest ones. However, even if they were, it is still the teacher who is the most important piece of equipment in the school. There are great advantages in uniformity, but it is questionable if rural schools have reaped advantages sufficient to outweigh the disadvantages they have suffered. For all these text-books were written with city requirements in view. One has only to read an arithmetic text-book to see this.

Then again, the course of study is overwhelmingly bookish. This was not such a bad fault in primitive times, because practical things were learned by imitation and application at home. But nowadays we have swung to the other extreme. We teach books. Perhaps that is all that young girls can teach; but rural children should learn to sew, knit, cook and care for a home, if they are girls, and to judge live stock, understand crop-growing, dairying and elementary horticulture as well as making things, if they are boys. In other words, we worship book knowledge.

Of course, it should be admitted that rural school-houses are not constructed for anything but book-work. Old-fashioned ones seldom have a basement fitted up with apparatus for manual work or cookery, and a room for a dining-room and another for a gymnasium. Of course, in addition, there should be school gardens and home gardens and experimental plots, as well as a schoolyard with plenty of playground equipment. It is pathetic how few rural children play football for example, or even baseball.

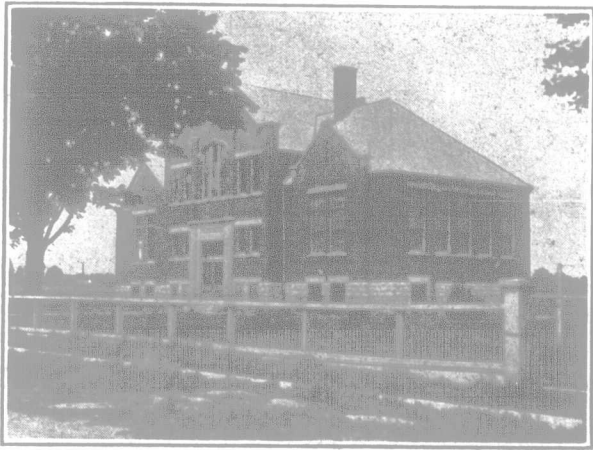
Then we are plagued with the fallacy of the well-known educational ladder from the kindergarten to the university. Now, a course of study from six to twenty-one years of age for those who wish to attend a university is very nice for them. But even at that, they are a very tiny proportion of the school children. Ninety per cent. of them never go beyond the public school, and it seems unreasonable to make our whole school system prepare children for the university when less than 5 per cent. go there. Children do not exist for schools, but schools exist for the sake of the children, and, therefore, we should have a course of study in our public schools suitable for those who will never go any further. In other words, we require an all-round education, and a special curriculum for children between the ages of 6 and 14. In the case of rural schools, this curriculum should be entirely different from that adopted for city schools.

Then we have a plague of examinations and red

*By Sinclair Laird, Dean of School for Teachers, Macdonald College, Quebec.*

tape. Wherever systems become highly organized, there is a danger that the organization will forget what it was intended to help and will be developed for the sake of more organization. Departmental examinations do much good in making a uniform standard for all schools, so that children in the same grade may be transferred from any one school to another without loss. On the other hand however, these examinations make them cram their work and destroy what would be excellent educational impulses on the part of the children. In other words, our schools prepare children not for their adult life in the world, but for their school examinations. Rural schools should have very few of these, but should have more supervision on the part of the school inspector.

This brings us to the true consideration of the usefulness of the visits made by school inspectors to rural schools. Frequently they only visit a rural school for half a day at a time, and probably only twice a year. Only a superficial examination can be made of a rural school in that time. Very little help can be given to the teacher, and very little inspiration imparted to the children. The inspector, of course, is not to blame for



A Real Community School at Brownsville, Ont.

this state of affairs, because he has a large number of schools to visit, and has to prepare educational statistics and reports which require that the time of his visit must be occupied by the gathering of material for his report. Now the inspector should not merely be the hand and the eye of the Department, but should be the friend, philosopher and guide of the rural teacher and her children. He should be able to demonstrate and to encourage new developments and promote initiative. He should be allowed to introduce novel ideas, provided they are useful to the children and to the community. But usually the school inspector is restrained by official limits, and can do little except praise or blame. He usually considers he is not really inspecting unless he can find one or two faults.

To sum up the present condition of our rural schools, we might state that they are faulty because they are bookish and not practical; they rely on uniform cheap text-books, rather than on good inspiring teachers; the buildings are unsuitable for anything except book work, having usually no basement, no workroom, lunch-room or gymnasium; they suffer from the fallacy of the educational ladder from kindergarten to university and from the fallacy of examinations, red tape, useless inspectorial visits and statistics.

Now what should we have instead of a condition of affairs as shown above? Well, in the first place, we should have special schools for country purposes, having little or no reference to city schools. Such schools exist in Denmark, France, Scotland and elsewhere. After the German war of 1864, Denmark was left amputated and nearly bankrupt. Two of her most

important provinces, Schleswig and Holstein, were annexed to Germany. She was reduced to 1500 square miles, with soil light and in some places very poor. With a raw and inhospitable climate, with poor agricultural practice, the outlook was desperate. But the very despair of the people caused them to make the most of the country left to them, and to improve their chief industry which was agriculture.

In the fifty years since that time, there has been a radical change in Danish rural life, agriculture and education. Now, Denmark has become one of the foremost agricultural nations in Europe. Co-operation in production and marketing has helped the farmers to obtain maximum prices for their produce, and has made them comfortable and happy. This is due to the improved rural schools which were organized for this purpose. Denmark's prosperity became a reality after the institution of better rural schools, high schools, local agricultural schools, and special schools for small holders. All of these schools aim to build local character and emphasize the teaching of scientific agricultural and practical homemaking. In fact, they are continuation schools for rural children. Their schools are revitalized and their teachers have become permanent members of the rural community. Male teachers are in a large majority, indeed, nearly 82 out of every hundred elementary teachers are men, many of them married men.

In France the young men of the Normal School take instruction in market gardening as well as in botany. The school garden is used to teach the practical part of preparing the soil, sowing seed, grafting and pruning fruit trees. All this is done with a view to making young male teachers qualified to teach the agricultural work in rural elementary schools. Many of these teachers are afterwards as effective agricultural commissioners as our district representatives in Canada. The French Government deliberately tries to disseminate scientific ideas in this way so as to counteract the movement of the population from country to city, which is just as common in France as in other countries. It should also be remembered that rural teachers have a school residence attached to the school, and in their own gardens some rural teachers do excellent agricultural work in training French children how to prune, train and care for grape vines in the wine districts. Indeed, after the outbreak of phylloxera, it was the rural teacher who really saved the vine growers from ruin and restored the industry on a healthy and sound basis.

Rural schools should exist within reach of all children. This does not mean that the country should have a multiplication of schools, because this process has gone too far already, and we have too many weak rural schools. It would be better to have fewer schools, with a larger attendance and a better staff with more possibilities of grading, and with at least one male teacher in charge. These larger rural schools should again be connected with rural high schools, having a special course of study suitable for country children. Agriculture and all its activities would naturally form the basis of this course of study. At the present time we have high schools beyond our present public schools, but instead of these we need rural high schools similar to the ones in Denmark, which are called folk high schools, and give a thorough training in scientific agriculture and homemaking. In other words, the rural school should look to a better developed rural high school, and not to a city high school.

Another step which must be taken to make the rural schools efficient is the attraction and retention of more married teachers into the profession. The old-fashioned "dominie" may have had faults, but he certainly left his mark on the intellectual development of the school children. We need men to take teaching positions as a permanent occupation. At present we have to endure young girls and young women who are not always capable of rural leadership, and who do not make a practice of remaining long in one position. To do this, we must have centralized schools providing an education for a larger area. These centralized schools must also provide teachers' residences suitable for married

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An Early Type of School in the Eastern Provinces.



A Building which Represents a Marked Development in School Architecture.



## THE HORSE.

## Persistence of the Urachus or Leaking Navel in Foals.

In the unborn animal there is a tube extending from the anterior portion of the lower part of the body of the bladder to the umbilical or navel opening. This tube is called the urachus. After it has passed through the umbilical opening it expands and forms a sac that surrounds the foetus external to the inner membrane, hence forming a part of the foetal membranes, commonly called the afterbirth. The function of the urachus is purely a foetal one, viz., to convey from the bladder the urine that is secreted during foetal life. At, or very shortly after birth, this function no longer being necessary, the canal, under ordinary conditions, becomes obliterated. It, however, not infrequently occurs that from accidental causes not well understood, or as a consequence of malformation, it becomes only partially or not at all obliterated, hence urine continues to escape in drops or in a small stream from the navel cord. This condition is more frequently noticed in male than in female animals, and appears to be more dangerous in the former. While foals that suffer from the abnormality are usually weakly, the accident is often met within smart, strong subjects, but if the discharge be not checked the patient, in most cases, soon becomes weak and unthrifty. The condition also is, in some cases, accompanied by a more serious condition called "joint-ill" or "navel-ill," in well-marked cases of which treatment is usually ineffective. At the same time it is not uncommon to notice persistence of the urachus without complications.

**Symptoms.**—The symptoms are not difficult to detect. The patient may or may not be weak, but urine will be noticed escaping, either in drops or in a stream of greater or less volume from the navel opening. If the foal be weak and unthrifty it will usually lie most of the time, and, instead of the navel drying up and the opening closing and healing, there will be a constant wetness of the part and a refusal to heal. In some cases there is an almost constant escape of urine in small quantities; in others there is apparently no escape except when the patient is urinating, when, if the urethra (the normal channel for urinary discharge) be pervious, it will be noticed that the liquid is escaping by both the normal channel and the umbilicus. The foal usually appears listless, and gradually grows weaker and weaker, but there are exceptions.

**Treatment.**—Before treatment is resorted to it is necessary to ascertain whether the urethra be pervious. In some cases there is a false membrane occluding the entrance of the urine from the bladder to the urethra, and where this condition exists, if we prevent its escape by the urachus it cannot escape at all, and, of course, death will be the result from either inflammation of the parts and exhaustion, or from rupture of the bladder. In cases where the foal has been noticed voiding urine by the normal channel of course no further evidence is necessary, but where this has not been observed, a small catheter should be passed to break down the false membrane if one be present.

If the umbilical cord protrudes below the abdomen it should be disinfected with some active antiseptic, as a 5-per-cent. solution of carbolic acid or one of the coal-tar antiseptics, or a solution of corrosive sublimate, 15 grains to a pint of water, or even stronger. The patient must be cast and held upon his back, then, when the end of the urachus can be seen and taken up with a forceps, it should be tied with carbolized cat-gut or silk. Even when the cord is broken off close to the abdomen, we can sometimes observe and secure the vessel. When the urachus cannot be observed and individually secured the whole cord may be enclosed by the ligature, but it is better, when possible, to secure the urachus alone. The parts should then be dressed 3 or 4 times daily with the antiseptic until healed. Clams may be used instead of a ligature, but most practitioners prefer the latter.

In cases where the urachus cannot be secured in this way some authorities recommend the operation of cutting down upon it through the floor of the abdomen and securing it, but this is a critical and, in most cases, an unnecessary operation, and one that requires an expert, hence it is seldom recommended or performed.

In such cases the application of strong astringents or mild caustics will be effective. Probably the most successful treatment has been the application twice daily with a feather of a few drops of equal parts of butter of antimony and tincture of myrrh. In order to apply this the foal must be held upon his back and the liquid carefully applied to the very bottom of the raw surface. Care must be observed to not apply the caustic too freely, or over a greater surface than that upon which we wish its action exerted.

In cases where treatment for this trouble is adopted early, a recovery usually takes place provided no complications arise, but when treatment is deferred or neglected until the patient has become too greatly weakened it is often ineffective.

W. H. S.

## English Horse Notes.

The English Shire Horse Society has decided to admit American-bred horses into its Stud Book.

Licenses to export stock from Great Britain will, in future, be issued by the Board of Agriculture. The latter declare that foreign exporters need have no fear that their business will be delayed.

There will be no International Horse Show at Olympia this year.

## LIVE STOCK.

Provide a clean box stall for the cow due to freshen.

Young pigs apparently enjoy rooting in the barnyard on sunny days; the exercise develops bone and muscle.

Rather than run the risk of having the cattle on a short pasture ration this summer sow a field of oats for pasturing off in July.

The first twenty-one ewes to lamb, in the O. A. C. flock, gave birth to forty-one lambs—a very good increase. The College flock is in excellent condition.

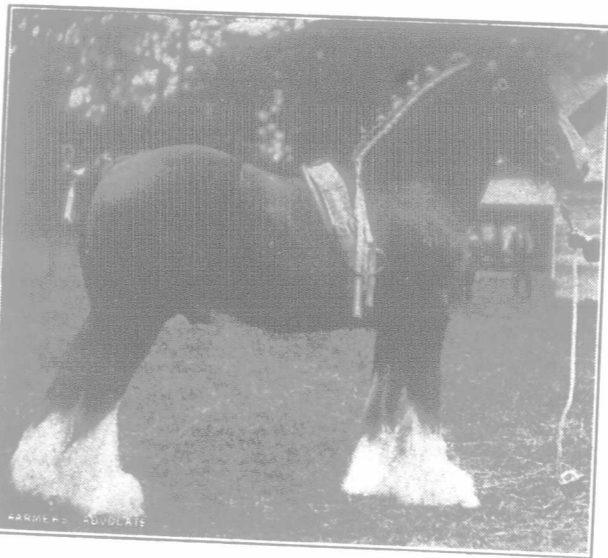
Do not be over-anxious about getting the stock on grass. Wait until the grass gets some substance to it, and it will stand feeding better during the summer.

It will not pay to neglect the stock during the rush of seeding. Better to take a day or two longer getting the seed in the ground than to push seeding operations at the expense of the live stock.

Many flocks are already shorn, but there are some sheep owners who put off this job until on towards the last of May, thereby losing a certain amount of wool, and causing the sheep a good deal of discomfort.

Have you built a "creep" for the lambs? The best sheepmen always provide a place where the lambs can nibble at oats, oil cake, clover hay, etc., without being bothered by their mothers. This extra feed increases the thriftiness. You cannot afford to stint the lambs.

Prof. Toole's experiment with steers to demonstrate the value of a pure-bred sire and to compare the cost of producing flesh, killing qualities, etc., is well under way. There are three steers of no particular breeding, such as one might pick up in numbers in the stock yards



The Shire is Still the Popular Draft Horse of England.

in the fall; three pure-bred Holstein steers; three steers of Shorthorn-Hereford cross; three grade Shorthorns, and a pure-bred steer of each beef breed. The fifteen steers are housed under the same conditions, and an accurate account is kept of the feed consumed and gains made. These steers will be finished for the block and then the killing percentages noted. Much valuable information will undoubtedly be secured from this test.

On account of the increase in freight rates, R. W. Wade, Chief of the Live-Stock Branch, and Secretary of the Ontario Sheep Breeders' Association, is of the opinion that producers will co-operate more this year and ship their wool to Guelph in car lots rather than as individual shipments. Considerable can be saved on transportation charges if farmers will co-operate more at their end of the line and consign carloads. A mutual switch has been laid, so shippers should bill their wool through to the Winter Fair Building siding, whether it is going G. T. R. or C. P. R. This will save cartage. In the neighborhood of 750,000 lbs. of wool were received, graded and sold last year at the Winter Fair Building, but Mr. Wade is of the opinion that a million pounds should come forward this year. The machinery for handling it is being perfected, and the experiences of past years are being capitalized in the form of a better service-giving organization at the receiving and grading centre.

## Western Live Stock Sales.

During the early part of the month bull sales were held in several of the larger centres of the Western Provinces, and particularly good prices were realized. A show was held in connection with the sales, the animals being placed in order of merit before coming into the sale-ring. This is a feature of consignment sales which is fast gaining in popularity, and might well be adopted by some of our consignment sale-clubs in Ontario. At the Brandon sale, a report of which was given in the April 21 issue, ninety-seven Shorthorns were disposed of and the bull averaged \$554, and the females \$630. At Edmonton, two hundred and ten bulls went under

the hammer at an average of \$197.50. The one hundred and twenty-five Shorthorns at Edmonton averaged \$211.20; the thirty-five Herefords, \$207, and the forty-five Aberdeen-Angus, \$163.80. One Red Polled bull sold for \$160. The highest price paid for a Hereford was \$500, for an Aberdeen-Angus \$550, and the top for Shorthorns was \$600. Quite a number of the bulls in the sale were of inferior quality, and should never be placed at the head of herds.

A number of notable bulls were brought out at the Calgary show and sale, held on April 8-10, when six hundred and fifty-one bulls were sold for the sum of \$146,845, or an average price per head of \$225.56. Two hundred and twenty-one Herefords averaged \$246.35; three hundred and twenty-seven Shorthorns averaged \$223.58; ninety-eight Aberdeen-Angus averaged \$183.16, and five Galloways averaged \$170. A considerable number of these animals sold at prices far below their real value. The demand for herd headers was not particularly keen. However, all the animals consigned were disposed of. The top price for Shorthorns was \$3,800, paid for Kimmel Captain. Willow Spring Boelke, a particularly choice Hereford bull, contributed by Frank Collicut, sold for \$1,600, which was away below his value. He is of the calibre that should command \$5,000. Donald of Heathburn headed the Angus sale at \$750. He was contributed by A. E. Noad, of Olds.

## The Building Requirements of the Small Swine Grower.

EDITOR "THE FARMER'S ADVOCATE":

There is only one period in the life-time of the "commercial" hog during which comparatively warm quarters are necessary or desirable. The early March litter should, as a rule, be protected from cold in a sunny, roomy, dry pen. If hog raising is one of the major operations of the farm and many brood sows are kept, it is advisable to provide special quarters in the shape of a building containing several pens specially arranged for the farrowing sow. An ideal farrowing pen should be sufficiently large that it may be divided by a low division into two parts, thus giving the sow some respite or privacy from her hungry offspring. The same result may be attained later by supplying an outdoor yard, to which the sow may gain entrance through a small door, the sill of which should be sufficiently high to prevent the little pigs from following her for a few weeks, at least. Exercise, so essential to the sow, may thus be obtained while the little pigs would be less liable to injury from the results of over-feeding during the first few weeks. Later on they might exercise with the mother in the yard or by themselves after weaning. Guard rails are necessary and plenty of light. Wood floors are much to be preferred in the farrowing pen. Provision for supplying artificial heat on cold nights is a wise precaution. A large Quebec Heater centrally located will usually give enough heat to prevent dampness and force ventilation. The expensive steam or hot water system is often unhealthy and quite unnecessary.

The farmer with only a few sows to farrow, generally supplies a box stall in a building heated by other animals. The sow and the youngsters soon have access to a barnyard. Almost every swine-grower has had experiences with sows farrowing out-doors during winter in straw stacks, cabins, etc. In the majority of instances these litters not only survive but thrive well, although the practice could scarcely be generally recommended.

For the breeding herd, however, both boars and sows, and for all other classes and ages of stock, the cheap, portable cabin on pasture or paddock is the ideal summer shelter. Further, the same cabins cheaply constructed though they may be, provide shelter for the brood sows during the winter,—that will go a long way toward insuring a healthy breeding herd and large, healthy litters.

It has generally been conceded that the winter fattening hog must be supplied with warmer quarters, and that exercise is not so essential. Crippling, rheumatism, pigs going "off their feed" or "off their feet" are conditions generally attributed to over-feeding, and principally to damp quarters. A warm, dry, well-ventilated, well-bedded pen would then seem ideal for the winter fattening hog.

In the face of the foregoing, results of experiments at the Central Experimental Farm during the past winter, are interesting. The so-called ideal conditions as above described were well supplied in an expensive piggery.

Other groups of hogs were fed in a cheap, enclosed shed,—warm, low-roofed, straw-covered sleeping berths being supplied.

Other groups were sheltered under practically similar conditions, but with the shed open at all times to a yard.

Still other lots were housed in the single-board, portable cabins already described with a paddock for exercise and fed out-doors. All hogs were from fall litters, and uniform in weight and quality. The feeding period for the various lots averaged 100 days.

When ready for market at 175 to 200 pounds, the meal required per pound gain and the quality of the individuals were as follows:

**Indoor Fed.**—Pigs fed indoors consumed 4.9 lbs. of meal per pound gain. Younger pigs averaging 130 pounds at completion of test required an average of 3 pounds. Almost 20 per cent. of the younger pigs were either so crippled as to be useless or to make slaughter necessary in order to avoid complete loss.

**Enclosed Shed.**—Pigs, reaching market weight, consumed 4.6 pounds of grain per pound gain. Lost

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through crippling, 2 per cent.; showing slight evidence of crippling at finish, 6 per cent.

**Open Shed.**—Pigs reaching market weight consumed 4.9 pounds grain per pound gain. Quality good; no evidence of crippling.

**Fed in Open Cabin.**—At market weight, the outdoor fed hogs had consumed 3.9 pounds meal per pound gain, in quality were superior to all lots fed. All pigs were active and in the best of health at the finish.

It may be said that the exceptionally mild winter of 1918-19 was particularly suited to outdoor feeding. Attention is drawn to the fact that during the winter of 1917-18, one of extreme severity, hogs fed in an open shed showed similar superiority in quality with no greater meal consumption per pound gain.

It would appear, then, that a well-insulated, weather-tight building is not necessary for winter fattening. Insulation, in a piggery, besides entailing added expense, does not ensure dry quarters, unless ventilation is forced by artificial heat. While winter fattening of growing hogs in open, unprotected cabins could not be generally advocated, it would appear that the compromise of a shed, tight on three sides, with an earth floor and with a low, straw-covered sleeping shelter in one corner, should give the best of results. The hogs may be self-fed or trough fed in the shed. A yard preferably containing straw horse manure would be a valuable adjunct.

Aside then from the needs of the early-farrowing sow, portable cabins and one or two sheds as above described, would seem to be the main building requirements for the average farm herd or small hog farm. Interest on investment and depreciation in value of plant are weighty factors in production costs and profits. It would appear that with certain phases of commercial swine raising expensive building equipment is not only a handicap financially, but a detriment to the quality of the product as well.

G. B. ROTHWELL.

Experimental Farms, Ottawa.

## Tuberculosis Must Not Get a Strangle Hold on Our Live Stock Industry.

Among other matters before the Agricultural Committee of the House of Commons, Ottawa, the disease tuberculosis is given due consideration and legislation is proposed to assist in controlling this trouble which is gradually gaining ground in this country. The following paragraphs are from an address of Dr. Tolmie, M.P. for Victoria, B.C., before the Agricultural Committee. The Doctor gives a synopsis of the extent of the disease: what has been done in the control of it, and of proposed legislation for Canada:

With regard to the economic relation of tuberculosis to live-stock industry, I may say that before the war it was estimated that there were one and a half million tubercular cattle in Great Britain. The United States estimates that their losses from tuberculosis have amounted to 14,000,000 head. Our Canadian Meat Inspection shows that tuberculosis is on the increase in this country and in the six years past it has increased from a little less than 3 per cent. to 4.06. This increase is only in the establishments where animals are killed for export or interprovincial trade, as these are the only abattoirs which are under official inspection. They are the only places from which official figures can be obtained. The most remarkable increase, however, is on hogs. In the same period tuberculosis in hogs has increased from less than 9 per cent. to 19.04. Between the years 1917 and 1918, 4,630 beef animals were condemned in the abattoirs for tuberculosis and 36,478 portions. I may explain this point by stating that when an animal is only slightly infected, any of the organs affected are set aside, and the carcass is allowed to pass for food. However, if there is any inclination to a generalized condition of the disease, and several organs are affected, the whole carcass is condemned and tanked and made into fertilizer. During the same period 4,355 carcasses of swine were inspected and destroyed, and 772,236 portions were condemned. We see, therefore, that the disease is on the increase in this country, and the longer we put off taking steps towards its control, the greater the problem will be. I will give a few of the results of tests that have been made. The Dominion Department of Agriculture has a scheme under which they undertake the testing of cattle for tuberculosis for any city under certain conditions. This is done under the Tuberculosis Municipal Order which went into force in May, 1914. The following are some of the results in the municipalities which have taken advantage of that Order. In Ottawa the number of cattle tested was approximately 2,000, and the number which reacted was 166, showing a percentage of 7.07. In Virden the number tested was 184, 9 reacted, the percentage being 4.89. In Regina 3,500 cattle were tested, 146 reacted, a percentage of 4.07. In Saskatoon 9,000 were tested, 292 reacted, a percentage being 3.01 per cent. In North Battleford 900 cattle were tested, 101 reacted, showing a percentage of 11.11. The reactors in all those herds were materially decreased after the first application of the tuberculosis test.

### External Symptoms of Affected Animals.

The testing for the live-stock branch in ten years covers 11,584 animals and 1,145 reacted. There were tested for export 9,787 of which 332 reacted and for import 4,038 of which 106 were reactors. Now you will be perhaps a little interested in the ordinary symptoms of tuberculosis. I might say at the beginning that when the animal is only slightly affected, there are very few external symptoms shown, and, in some cases

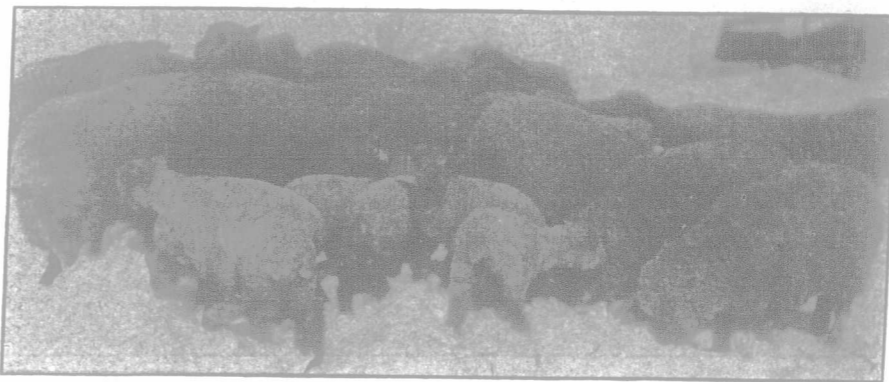
no symptoms whatever, and it may be at that time in fine condition. Later we notice an unthrifty appearance and a rather staring coat, and particularly when exposed to a slight cold. A cough may be present particularly on slight exertion, a shrinkage in flesh, enlargements of the glands, occasionally they are subject to bloat, that is when the intestinal tract is affected; scouring may be noticed. There may be enlargements or lumps in the udder: we find that these lumps are not painful on pressure and these are usually safe grounds for suspicion. In cases of this kind the animal should be subjected to test without delay.

The disease is transferred to man most easily through the milk when the udder is affected. A tubercular herd is frequently subject to udder trouble.

### The Tuberculin Test.

With regard to the methods for eradication of tuberculosis: I may say that owing to the fact that it is difficult to make a diagnosis by physical examination we use what is known as tuberculin. This tuberculin is made in Ottawa; the tuberculin that is used all over this country by the Government is made in this city. Briefly it is produced in this way: Some tubercle bacilli are cultivated in beef cullion at a blood temperature. After they have made sufficient growth and the fluid in which they are contained becomes pretty well impregnated with the germs, they are exposed to a very high temperature. After that the mixture is carefully strained so that there is no possibility of any of the bacteria remaining in it. Then this material is reduced by slow heat to one-tenth of its volume and, in that condition, with the addition of a little glycerine it keeps almost indefinitely. There is added a weak solution of carbolic acid and it is then ready for application.

We have two principle methods of testing animals. The subcutaneous test is one in which the temperature is taken every three hours, for twelve hours, or until we obtain the average normal temperature. The tuberculin is injected and eight or nine hours afterwards the temperature is taken again, and every three hours till the following night usually beginning at six o'clock in the morning and ending at 6 p.m. If a distinct rise in temperature is obtained of 104 degrees or more the animal is condemned as tubercular; if the reaction is only slight the animal is treated as a suspect and is retested again; if there is no reaction the animal is passed as sound. However, it does not do to rely



Dock the Lambs When About Ten Days Old.

on one test only; in herds where the disease is present the animal should be tested again.

### Method of Testing in B. C.

The other test, the one used in British Columbia, is the intradermal test. The tuberculin instead of being injected under the skin is injected into the skin and the sites generally selected are the little folds under the tail, which are almost free from hair and where the reaction can be observed. Three or four drops of this tuberculin is injected into the skin. A reaction is shown by a little swelling at point of injection, and in the case of a healthy animal no disturbance will be produced. There is also an eye test which is not generally considered as reliable as the others, and is not in general use. Some men will inject in one way, and when there is no reaction, they will sometime afterwards inject with the other as a "control" test. In a herd of high-class cattle it is not necessary to destroy every reactor. It is always safe to kill off those cattle which show physical symptoms of the disease, but with respect to others we can adopt what is known as the Bang system, a method which was recommended by a man named Bang in Denmark. By this system these tubercular animals are set apart by themselves and their milk is pasteurized to 140 degrees F. for twenty minutes, after which it is perfectly safe to feed this milk to calves. In that way the rest of the herd is safe from infection. This practice has been followed in British Columbia by a prominent breeder in one of the very best Holstein herds in that Province, and indeed in Canada, and, I am very glad to say, that for several years there has not been a single reactor found.

### Preventing the Spread of the Disease.

In the way of prevention only animals from herds that are known to be healthy should be introduced into the herd, and if there is any animal of doubtful origin it should not be introduced into a healthy herd until it has been thoroughly tested. Then again you should have a careful system of disinfection; it is not enough when you apply the tuberculin test to take those animals that have reacted and either kill them off or separate them for further test, but you should thoroughly disinfect your premises by scraping them and cleaning

them to the best of your ability, and after you have done that you should thoroughly spray the stables with a strong antiseptic solution, taking care to see that the solution gets into every crack and crevice in the place. With regard to the best method of handling tuberculosis and checking its spread, I want to go on record as saying that I am not in favor of creating any undue alarm or causing widespread excitement, nor do I advocate a sweeping measure for testing cattle throughout the country. That is too big a proposition to tackle in that way. Where the attempt has been made to control the outbreak by such sweeping measures it has failed. I would rather follow a course of education, to induce the people who own pure-bred herds to insist on having every animal tested. Our cities and towns should be assured of a clean milk supply which is free from tuberculosis. This can only be obtained from a tested herd. If a supply of milk free from tuberculosis cannot be assured, then the milk should be pasteurized before it is placed upon the market. The Government and the municipalities could very well work together in carrying out such a scheme as that.

We should, also, purchase as far as possible meat bearing a little blue stamp, "Government approved." When you buy meat bearing that brand you can at least rest assured that you are buying an article from animals which are free from disease because our Canadian Inspection Service is, I think, as honest and effective as any in the world.

### Tubercular Free Herds in B. C.

In British Columbia we learned long ago that it did not pay to keep tubercular cattle. In the first place, if you have an infected herd, everything may be going along nicely, when suddenly a cow gets bloated, or begins to scour, does not do well, and one-quarter of her udder may show soreness and inflammation, and if you test her you will frequently find her tubercular. Other animals do not thrive as well as they might and when you count up your losses at the end of the year you will find they have been very considerable. So that we have applied the tuberculin test in British Columbia, particularly to our pure-bred and milking herd, and under the law there every herd sending milk to a city must also be tested, with the result that there is a large number of herds in British Columbia that have not shown any reactors for a number of years.

"The Dominion Department of Agriculture has for many years taken charge of herds for the purpose of eradicating tuberculosis, but beyond supervising the disposal of reacting cattle, no further action has been taken. There are at the present time 55 of these herds under Federal supervision, and 2,521 cattle have been tested with 706 reactors. The Department supplies tuberculin to veterinary practitioners, free of charge, and earmarks all reactors. During the last ten years the practitioners have tested 37,612 cattle with Departmental tuberculin and 3,797 of these animals have reacted."

This is the Dominion system at the present time. Then with regard to the United States, I will read the memorandum I have as follows:

### System of Eradication Practiced in United States.

"A joint meeting of representatives of the Breeders' Associations of the United States, as well as of the United States Live-Stock Sanitary Association, was held in Chicago in the month of December, 1917. At this meeting the best means for the eradication of tuberculosis from pure-bred herds in the United States was discussed. This meeting decided to adopt the Accredited Herd System for the United States. A joint Committee was appointed of ten, consisting of five members representing the Breeders' Associations and five representing the United States Live-Stock Sanitary Association. This Committee drafted a set of rules for the establishment of accredited pure-bred herds. At subsequent meetings these rules were unanimously adopted by both associations, and were recommended to be put into force by the Bureau of Animal Industry. The Bureau of Animal Industry approved and adopted these rules on December 23rd, 1917. An accredited herd is one which has been tested officially without any reactors for two successive yearly tests or three successive bi-annual tests. Cattle from accredited herds can be shipped from one state to another and from the United States to Canada without test. All other cattle must comply with the individual state requirements. The United States authorities publish a list of accredited herds at systematic periods. The first list was published July 1, 1918, and showed 211 accredited herds. The Report for the fiscal year 1918 shows that there were 126,229 cattle tested that 5,945 reacted, of which 4,005 were slaughtered, making a percentage of 3.91 reactors. There are now 404 accredited herds. The Agricultural Appropriation Bill for the fiscal year terminating June 30, 1919, in the United States contains an appropriation of \$500,000 for tuberculosis eradication. The expense of testing these herds is shared by the state and federal authorities. The compensation is shared by the federal and state Governments. Each pay one-third of appraised value."

"The Federal grant is limited to fifty dollars for pure-bred animals and twenty-five dollars for grade



animals, and must not exceed amount paid by state or municipality. The cattle are valued by a representative of the Bureau of Animal Industry and one from the interested State. "If the owner is not satisfied with the award a new appraisal is made under the state law. The salvage is paid to the owner and the amount deducted from the appraised value."

I may explain by that word "salvage", when an animal is slightly affected and the carcass passes inspection, the owner is allowed what the animal brings for beef and the hide.

"Compensation is paid jointly by the Federal, State and Municipal authorities, for example:

	Appraised Value	Salvage	Difference
Pure-bred Shorthorn cow.	\$200	\$90	\$110
Federal aid (not to exceed one-third difference).....			\$33.66
State aid.....			33.66
County or municipality aid.....			33.66

#### Accredited Herd System for Canada.

The Dominion Government, as I understand, is undertaking to introduce a plan similar to the accredited herd system of the United States. It will in the first place result in having a large number of high-class herds in the country, and I may point out that in some documents I received from British Columbia this morning, it was shown that there was a meeting of a committee of representatives from the Farmers' Institutes of that Province and a resolution passed to the effect that the importation of cattle into British Columbia from other than accredited herds should be prohibited.

Let us consider what will be the effect of leaving this thing alone, and what, on the other hand, will be the effect of establishing accredited herds in this country.

We recently have been able to arrange with the Holstein Association so that registrations in the Canadian Herd Book will be accepted in the United States, and we in Canada will accept United States registration, so that we can register, one country with the other, for

### Live-Stock Department of United Farmers Promises Well.

Readers must be generally aware by this time that the United Farmers' Co-operative Company of Ontario recently established a live-stock commission department, with suitable offices and staff, at the Union Stock Yards, Toronto. A representative of "The Farmer's Advocate" was present on the first day the business was conducted, February 17, 1919, and a descriptive article appeared the next week, outlining the policy and plan of operation that will be followed.

On Monday of last week, after the new department had been operating for nine weeks, we again visited the stock yards at Toronto and obtained from F. S. Fulthorpe, the capable accountant, who was brought from Winnipeg to take care of the difficult office work that arises in connection with work of this kind, some account of the unqualified success which has attended the new venture to date. We learned, for instance, that whereas it was not expected that sufficient live stock would be handled for some months to pay office expenses, within a very few weeks the business had so grown as to exceed any expectations held by the most optimistic. It was stated that 35 cars would need to be handled each week before commissions on sales would amount to sufficient to pay the expenses. Besides the office and equipment, the salaries of about 12 persons must be provided for, because, in addition to salesmen and the ordinary staff incidental to a business of this kind, the handling of such a business on a co-operative basis, with a special co-operative service such as was outlined in our former account, requires much extra clerical assistance. Notwithstanding this operating expense, business has totalled in 9 weeks the surprising number of 410 cars, with a more surprising money value of \$1,043,690.20. The week before last 75 cars were handled, and the week previous 95 cars. In addition, many more cars could have been secured had the office not advised holding off for more favorable conditions. Mr. Fulthorpe informed us that instead of 75 cars, 150

preparing the way for preference within the Empire; 3, Checking the menace of the meat trust.

It is alleged that American traders are securing orders from continental countries from which, on one plea or another, British Empire traders are still excluded. ALBION.

### The Summer's Hog Pasture.

If provision has not already been made for this summer's hog pasture, it is advisable to plan for this before the season is too far advanced. By the middle of May it is usually warm enough to get the brood sows and growing pigs out on grass. Pasture crops are economical at any time and are doubly so now at the price of grain. Dry sows may be maintained on very little grain if they have access to clover or rape pasture. The growing pig, after twelve weeks of age, will consume pasture economically, and if the self-feeding system is used will make maximum gains. On the Experimental Farms, as well as upon numerous private farms, the self-feeder-pasture-plan has proven to be entirely satisfactory. Not only does this save labor and feed, but the hogs apparently thrive much better when given sufficient green feed than when confined entirely to the pen. It is a good plan to fence off several paddocks and have the fences sufficiently tight to prevent the pigs from getting under, through or over into the adjoining crops. If a clover field is near the buildings, a portion of it might be fenced off, as clover is generally considered to be one of the most satisfactory pasture crops. The Experimental Farms, at Ottawa, found that with a self-feeder it will take around thirty-five three-months-old pigs to keep down the growth of clover in a normal year. Of course, as the pigs grow the number per acre should be reduced so that the pasture will not suffer. Alfalfa is equal to red clover but it cannot be grown successfully in all districts. If using clover for a hog pasture is not practicable this season, oats and barley may be sown for early pasture, and later on rape or turnips may be sown. For late pasture a paddock might be sown to sweet clover. Where economical gains are to be obtained it is advisable to pasture the hogs. Having a crop of rape ready by the time the clover is picked off gives a change of feed for the pigs and the spring litters are then at an age when they can use this crop to the best advantage. While the rape is being eaten off the clover will have a chance to freshen up for use later in the season. The number of hogs to run on a given area will be governed by the size of the hogs and upon the favorableness of the season for rapid growth. While the growing pigs may do very well on pasture alone, for best results it is advisable to feed a little grain.

### Co-operative Wool Marketing in Quebec.

Since 1914 the co-operative marketing of wool in the Province of Quebec has been progressing steadily, and sheep raisers in this Province have played their part in putting wool marketing on such a firm footing, co-operatively, as to lead to the development of the Canadian Wool Growers' Association, Limited. A short time ago a representative of "The Farmer's Advocate" paid a visit to Macdonald College, Quebec, and took occasion to get from A. E. McLaurin, Extension Animal Husbandman, details as to the growth of co-operative wool marketing in this Province. It seems that in 1914 when this work was first started among the English-speaking people of Quebec, one association of wool growers was formed at Pontiac. This association had that year ninety-six members and marketed, in round numbers, 12,000 pounds of wool. In 1915 seven more associations of wool growers were organized, bringing the total membership to 975, and the total clip that was marketed co-operatively up to about 100,000 pounds. In 1916 another association was organized, and the membership rose, all told, to 1,617 members, and the sale of wool to 170,000 pounds. Still another association was formed in 1917, making ten associations in all, and these included 1,876 members who marketed 213,000 pounds of wool. In 1918 there were 1,950 members, and the same quantity of wool was marketed as in 1917. Mr. McLaurin informed us that there should have been a much greater quantity last year, and there would have been but for the fact that local buyers made very strong and determined efforts to wean the members away from their associations.

The system of collecting the wool in Quebec differs from that of the other provinces, in as much as local wool growers' associations exist in Quebec as mentioned above, having been formed in the first place to give flock owners a more definite interest in the marketing of the wool, and to bring home more nearly to the individual farmer the value of grading and quality. Each association has its own officers with whom the members are individually acquainted. Previous to 1918 the grading was done at local points within the area covered by each association, and each member of an association was given an opportunity to see the grading done. It was felt, therefore, that there was more or less of an educational value in these associations.

The membership fee varies with each association, but it is set at such a figure as to cover the estimated cost of operation and is subject to change each year. Neither the Macdonald Agricultural College, nor any other institution, whether Government or otherwise, offers financial assistance except the matter of advice and help may be given directly by Mr. McLaurin, who has charge of this work for the College or other officers. Every association is chartered under the laws of the Province of Quebec, and to do this each association must deposit in the bank at least twenty-five demand



A Pair of Prime Bullocks.

This pair weighed 4,300 pounds and were out of a load of 17 head which weighed 33,710 pounds. They were purchased on Winnipeg market, fed by A. Cameron of Elora and sold on the Buffalo market.

an expenditure of one dollar. Under the old system it was sometimes necessary to register back pedigrees at a cost of \$80 or \$90 so that we expect a largely increased trade. The same plan has been adopted by other of our pure-bred live-stock associations, and we anticipate a big trade between the two countries. With the progress that I have shown that is being made with accredited herds in the United States, it is only reasonable to expect that when a man has got his herd free from tuberculosis that he will want, if he wishes to add any fresh animals, to secure those animals from a herd free from disease. He would be a foolish man to take animals from a herd already tainted, the effect will be that if we do not start this accredited herd system in this country, we will be working at a disadvantage as far as export trade is concerned, and also in selling animals in this country.

The matter of municipal meat inspection is a very difficult one, and is interesting people all over Canada. The people of British Columbia are trying to have the Provincial Government put through a law with that end in view. But there are many difficulties. Take the case of a man who kills his animals in the outlying parts of the country. It is a very difficult thing to carry out a system of inspection at the point of slaughter. Any system of inspection of meat that does not include the inspection of viscera cannot be successful. You must see the various organs in order to form an opinion. In the case of those killing in the country, it is necessary that they should bring in the heads and certain sections of the viscera before a proper inspection can be made. That is practically the gist of this Bill, but I do not know whether the Provincial Government is going to adopt it or not at the present session. Another suggestion is to adopt the municipal abattoir, and have all animals shipped there for slaughter. It is most important. Those men who buy diseased cattle avoid slaughtering at the abattoir where animals are inspected. These animals are usually, killed without inspection, and if you do not protect yourselves you are going to get this class of beef.

A good seed-bed is essential to good crops.

cars could have been shipped if they had not advised shippers to hold back.

Receipts to the date of our visit had been about 10,000 hogs, 5,200 cattle and 600 sheep, 80 per cent. of which had arrived in co-operative shipments, made either by clubs or groups of farmers. About 50 per cent. were handled on the pro rata or "co-operative service" basis, by which cheques are mailed directly to individual farmers.

"Charlie" McCurdy, the chief salesman, who has been buying and selling on Toronto market for about 30 years, is more than pleased with the progress that has been made. Shipments have been received from all over Ontario, and a good percentage of the shippers are repeating their consignments. One club at Meaford sends four or five cars each week. Such widespread points as New Liskeard, Napanee and Barrie have contributed to the success of the venture. Complaints are said to be remarkably few.

### Britain and the Meat Trade.

EDITOR "THE FARMER'S ADVOCATE":

The world's output of frozen meat in 1918 was 1,130,000 tons plus an undisclosed quantity shipped to France by the U. S. A. Government in order to feed their own soldiers. The American group of countries handled more than half of last year's production. Canada sent to England 147,850 quarters of frozen beef, and the U. S. A. 1,460,023 quarters. Of chilled beef, Canada sent 2,493 quarters and the U. S. A. 206,457 quarters. America was the largest exporter of frozen meat in 1918, next to Argentina. Approximately 210,000 tons of America's output were purchased by the British Government, and of it some 179,179 tons were imported into the United Kingdom, the rest going to the continent, or was sunk on passage.

The air is full of schemes for the better conduct of the British imported meat trade after the restrictions imposed by war conditions are withdrawn. These schemes have been devised with a view to attain at least three main objects: 1, Securing supplies for the United Kingdom; 2, Fostering Empire production and

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### Hog Pasture.

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### Marketing in

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notes for ten dollars each, as a guarantee of good faith. Although placed in the bank and ready for use at any time should the association so decide, this money is rarely, if ever, used. It is there for contingencies and can be used in a case of emergency. Many associations have gone beyond the \$250, especially when they had gone into the purchasing of supplies. In 1918 the total value of wool marketed from the ten associations was \$148,529.83. Eight associations marketed sheep and lambs to the value of \$90,944.86. Three associations marketed other live stock such as cattle and hogs to the value of \$41,020.90, while three other associations did other business in grain, hay, feed and miscellaneous materials amounting to \$19,697.90. Thus, the total business during 1918 conducted by these ten associations of wool growers amounted to \$300,193.49, of which one association made up \$108,532.87.

Up to 1918, as has been mentioned, the wool was marketed by these associations, but for the season of 1918, the Canadian Co-operative Wool Growers Limited had been organized and Quebec marketed through this Association, receiving prices that were remarkably good, according to Mr. McLaurin, as compared with the rest of the Dominion. Quebec wool sold at an average of 73½ cents per pound, rejects excepted, the latter selling for from ten to sixty cents, according to quality. This high price was due to the large percentage—close to fifty per cent.—of medium combing, and because Quebec wool has a low shrinkage, standing second in the Dominion on this score. The only section in Canada having a lower shrinkage than Quebec is the Maritime Provinces, as stated by Mr. McLaurin. There are also a great many Shropshires and Oxfords in the English-speaking districts, and it is these districts which have largely contributed to co-operative wool marketing up to the present. Some work has been carried on by the Quebec Department of Agriculture among the French-speaking districts, but we have no information now as to the extent of this work.

The territory which must be covered in Quebec wool marketing is spread over a great area, extending from the Eastern Townships to Ottawa, and north and south for many miles. It was, therefore, very difficult to find suitable places for the establishment of four central warehouses in 1918. Huntingdon, Shawville, Lachute and Lennoxville were finally chosen, however, and the wool was centralized in these warehouses for the first time last year. Up to the present the grading has been done by grading experts provided by the Live Stock Branch at Ottawa, but this year it is understood that graders will be employed by the Canadian Co-operative Wool Growers Limited.

## THE FARM.

### The Rural School, Past and Future.

Continued from page 859.

men. The teachers' gardens would then be one outlet for teaching horticulture. As in Scotland nearly every married rural teacher has a stable and a large garden, so in Canada we should have rural teachers' residences at the school with a sufficient amount of land to enable them to keep at least one cow, and possibly also a horse. This would prove good material for instructional purposes in the school, as was the case in a little border village of Ednam in Scotland, where milk testing, butter and cheese-making, was a regular part of the school course, in addition to caring for animals. Of course, this means that we must have a larger school ground and better salaries; but nothing worth while can be done without paying for it.

The re-organized course of study for our future rural schools would be on a new plan, with the various activities of country life as a basis. No hard and fast course of study should be fixed, but provisions should be made for at least half a day spent in practical work. This practical work would vary at different seasons of the year, just as farm operations vary. And it will be found that practical work will not cause deterioration in the other subjects. On the contrary, experience in Scotland, Denmark and elsewhere has shown that the practical subjects make children more keen to attend school, and make them more interested in the fixed part of the course of study.

These changes cannot be brought about by any one person. There must be a co-operative effort among farmers, farm journals, farmers' associations, rural leaders and professional educators, before such changes as these can be brought about. It is a healthy sign of the times that there is so much discussion about the inefficiency of our rural schools, about the consolidation of schools, and about education generally. Recent legislation in England and in Ontario shows the trend that is likely to be taken in educational reform.

It is also an excellent sign to find so many prominent agricultural journals and weekly papers agitating for better educational facilities in country districts. Unless the public supports this and demands it, it will not be obtained.

More use should be made of the school plant as a community centre. A consolidated school is something to be proud of, and may be used for all kinds of community activities. Farming will then become a more sociable occupation, and the school will be regarded as a benefit to all ages, and not merely as a heart-breaking prison for the young.

The country districts must also be organized into larger divisions, in order that there should be at least one rural high school in each county. The agricultural high schools in our Western Provinces are a good beginning in this direction, but we must really commence to have them in the East as well. These high schools should really be junior agricultural colleges with a

thoroughly-trained staff and plenty of equipment. They should be supported by the State rather than by the local community, and from their walls should graduate all the brightest boys and girls of the entire neighborhood.

At the present time there is confusion between the activity in the Department of Agriculture and the Department of Education, in most of our provinces wherever teaching is concerned with rural subjects. There should be no real opposition in such cases, although the purposes of both are educational and agricultural. It would be far better to have these rural high schools under the control of the Department of Agriculture, because then there would be some chance of getting away from the red tape of the ordinary education department.

Such are some of the ideas that must be adopted to secure better rural training for country children. We must have a separate educational system for country schools; we must have rural high schools connected with them in every country; we must make agriculture and rural homemaking the centre of all instruction; we must correlate all subjects around the centre. The whole course of study should be revised on this basis. We must have centralized or consolidated schools with teachers' residences and good school ground and better salaries, sufficient to attract married men, and we must have strong agitation and continued co-operation between farm journals, farmers and teachers, if we are to secure this change. It is surely strange that wherever consolidated schools have been tried, the people have refused to go back to the old school-house which has so many supporters in the generation just passing. If the world is to be worth living in, we must have the very best schools and the very best education for our rural children as well as for our city children. Commercial interests will take care of technical and advanced education in the cities. It will take all the energy of our rural leaders to secure better education for country children.

### Social and Anti-Social Activities.

Part II.

The philosophy of individualism, whose motto is "Every man for himself," falls into grievous error when it comes to be applied to commerce. Seeing that the individual may enrich himself by reason of scarcity, disaster or war, it deliberately plans to produce scarcity in order that certain parties may benefit thereby. Society desires plenty, not scarcity; but the producer of any commodity, when his activities are anti-social, desires scarcity that he may take advantage of the increased demand. The land speculator profits by the scarcity of land, the wheat producer by the scarcity of wheat, the carpenter by the scarcity of houses and furniture, the doctor by the scarcity of health, the lawyer by the scarcity of amicable dealing, and so on. The individual profits at the expense of society.

Now, protective tariffs operate to produce artificial scarcity. The producer of any commodity which has real tariff protection is advantaged by the scarcity which the import duty establishes. Foreign competition can be shut out in many ways; by difficulties of transportation, by high rates of transportation, or by import duties. In any case the results are the same—relative scarcity. And the producer can then take advantage of the scarcity if he is disposed to act anti-socially.

Supporters of protective tariffs are of two kinds: Those who are deliberately and consciously selfish and anti-social, and those who are misled by fallacious reasoning. This latter sometimes takes very curious forms, but at bottom it all results from a lack of discrimination between social and anti-social conduct. Some honest fools really believe that because the doctor gains by disease, the farmer by drought (so long as it does not affect his own farm!) The house builder by fires, the lawyer by litigation, and so forth, that society really gains by the increase of difficulties and obstacles to production. And this folly gains credence all the more if there is a body of "unemployed" who are vitally interested in the immediate getting of a job. Work is what they want, or what they think they want. It isn't, of course, work alone, but work as a means to the getting of supplies; and very often the means is confused with the end. So the fallacy becomes widespread. Put concisely the argument runs somewhat as follows: The more work there is the better people are off. Difficulties, obstacles, scarcity, increase work. Therefore, prosperity follows from the increase of obstacles to production.

Another form of the same fundamental fallacy is seen in the popular justification of luxurious living on the part of the rich. A certain village would be "dead" if it were not for so and so, who, by his wealth and "benevolence" furnishes employment to dozens and dozens of "poor people." What would these "poor people" do if it were not for the "rich man?" They would starve. There wouldn't be work for them at all! Therefore, the rich man is conferring a benefit upon society by giving employment! Such is the argument, and my readers must have heard it quite frequently. It is high time that it was generally recognized as the very reverse of true. It is, indeed, largely because of the "rich man's" luxury that the rest are poor. If Tom were not busy opening the door and brushing the clothes for "my lord," he might be doing something else, conceivably making shoes for his own children and those of his fellow workers. And if Dick were not busy looking after "my lord's" stableful of horses and driving his coach, he, too, might be doing something else, conceivably growing wheat or potatoes for himself and family. And so it is with each of the rich man's retinue; if they were not employed ministering to the abnormal

or foolish wants of "my lord" and "my lady," they could be employed at something else, which might serve to make them richer in those things which are necessary for the maintenance of life. Moreover, "my lord" might employ Dick to grow food for Dick's family instead of to drive "my lord's" coach. Thereby the total supply of useful commodities of services would be increased. It does not need a very great mental effort to see that men may be "employed" at all kinds of work, useful, foolish or vicious, and that what really matters is not the fact of their being "employed" but the nature of their employment.

There is a well-known statement that in Europe every farmer has been laboring with a soldier on his back. Rather uncomfortable, you would say! Not so; the poor farmer frequently thanks God that he has the soldier to carry, for if he had not who would consume the products of his fields? And if the soldier wasn't carried he might compete with the farmer in producing food! Therefore, if the soldier got off the farmer's back and took to farming, the farmer's market would disappear and there would be "over-production" at the same time! Better keep the soldier where he is! We must have a consuming population or what would the poor producer do? And the greater the power of consumption the greater the utility of this "consuming population," which must, in order to give the maximum of service be idle lest they compete with the producers and bring down prices! Such, in very truth, is the position of mental confusion to which we have come; such are the fallacies which too often determine public policy. Can it not be said of many of our citizens that it was given unto them that they believed in a lie? Brant Co., Ont. W. C. Good.

### CANADA'S YOUNG FARMERS AND FUTURE LEADERS.

#### What Can the Junior Farmers Do?

EDITOR "THE FARMER'S ADVOCATE":

In a recent issue of "The Farmer's Advocate" under the heading "Topics for Discussion," I noticed three questions which the editor of the paper wished the "Junior Farmers" to discuss.

I have chosen to answer to the best of my ability number two, which reads: "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 to the boy or girl?"

More attractive surroundings would, no doubt, be one of the most important matters to make rural life more congenial to the boy or girl. By more attractive surroundings I mean to let the boy have his share in keeping the farm more tidy, and in the summer to let the girl have her share in the flower garden.

Better live stock would interest the boy very much. Give him a pure-bred animal to feed and tell him that the entire proceeds are to be his for his work, and, in my opinion, this will interest him in farm work more than anything else.

Improved farm methods and more conveniences in the home content and satisfy the boy or girl very much. A farm boy is very fond of experiments and does not want to adhere to the same method of farming all his life, while the girl will appreciate conveniences in the home.

The chief attraction that lures the boy from the farm is the report (correct or otherwise) that in the city, town or village he can secure easy work and receive good pay with holidays.

The "old folk" should not be so strict with their sons and daughters, but when working at some difficult task let them exercise their own judgment and let them get interested in the work.

Keeping the boy on the farm can be more successfully carried out by giving him certain privileges, such as joining clubs like the Junior Farmer's Improvement Association and get him interested in farm work.

Northumberland Co., Ont. LEWIS ROBERTS.

#### Get Together More!

EDITOR "THE FARMER'S ADVOCATE":

What can Junior Farmers do to make rural life more congenial to themselves and others? My idea would be to get the fellows together and try to provide for the farm boys that something which most lads seem to think can only be found in the city; for instance, organize some sort of social, athletic or educational society. It should be easy to get it started, as I am sure most farm youths would be only too glad to get into such a thing if run properly. I would suggest, to start the ball rolling, that one or two of the leading fellows in the community get together and thoroughly discuss the subject; then get the rest of the crowd assembled, have a banquet or anything to get them interested, and then it should be fairly easy to go ahead, as there are scores of different subjects that most boys are more or less interested in. For instance, during the summer months sports and games of baseball, etc., could be arranged with neighboring districts. I know we will all be pretty busy during the coming season, but surely an afternoon could be spared, say, once a fortnight. Then, the society could hold competitions in the different branches of farm work, and there are a hundred and one ways, especially in the winter, that a crowd of fellows can get together and spend their time in an interesting and profitable manner. Such a club as this would not only



be of great benefit to the boys themselves but to the community in general, as it is because of the lack of social activities that most boys want to head for the city; and it would certainly take a load off of father and mother's minds to be able to think that Bill or Jack has something to interest him at home, and is not continually wailing about how "dead" the place is. Probably a lot of districts already have some such organization, but I know that there are hundreds of places all over the Dominion where there are anywhere from twenty to a hundred young chaps who perhaps have a speaking acquaintance one with another, and there it ends.

I would say in closing: get together fellows and get acquainted with one another, and you will be surprised at the difference it will make in your every-day work; and in meeting and talking together. You will find out all kinds of things which will be almost an education in itself. One more thing, don't be too narrow-minded, every fellow has a right to his own opinion you know, and if everybody kept that in mind a lot of petty bickering and scrapping could be avoided.

Temiskaming, Ont.

ONE OF THE JUNIORS.

### How to Make Rural Life More Attractive.

EDITOR "THE FARMER'S ADVOCATE":

Although the conditions in the country are becoming better all the time, they are not yet what they should be. Attractive surroundings, better live stock, improved farming methods, and more conveniences in the home are having a marked effect in keeping the boys on the farm, yet there are other things just as essential and possibly more so.

Parents should consider what things make for interest and charm so that their children will have no desire to leave the farm. It is not a question of profit with the boys and girls, but of interest in things for their own sake. The town offers many attractions, superficial they may be, but still attractive to the young which the country does not afford. Some claim that the charm of nature is one of the strongest forces in rural life. As a matter of fact, the picture show will draw a hundred boys and girls, while a charming landscape or a beautiful retiring spot draws one. It is either the natural desire of youth to see life, or it may be a fault in the cultivation of their tastes. Country life and farm work have their charm, even to youth, and it is the duty of parents to discover the features of rural life which attract most. Scenery is only a small part of that charm. The large freedom of movement, the interest in growing things, the sense of ownership, associated with the country atmosphere and surroundings are the factors which will count in attaching boys and girls to the farm. To these forces must be added a training and a measure of responsibility that will give the feeling of capability, an assurance of success when the management of land, stock and household falls into their hands.

Another trouble with farming, as it now stands, arises from the fact that the volume of work to be done is often so large that little room is left in the farmer's life for thinking and reading. He gets in the habit of laboring only and denies to himself and to his children the privilege of thinking. There are so many factors in farming operations to awaken and gratify intelligent curiosity, it is a pity that so few farmers give their children opportunity and encouragement to take an interest in some special branch of the work.

The solution of this problem is in the farmer's own hands. He must, first of all, become a thinker, an observer and an experimenter, and encourage his children to do likewise. The reason why more Junior Farmers do not express their ideas through the medium of farm papers, is because they do not get enough time for reading and thinking. As an example, the only time I get to put my ideas on paper is after I get the chores done at night and when I am feeling more like resting than writing.

Northumberland Co., Ont.

H. A. JAMIESON.

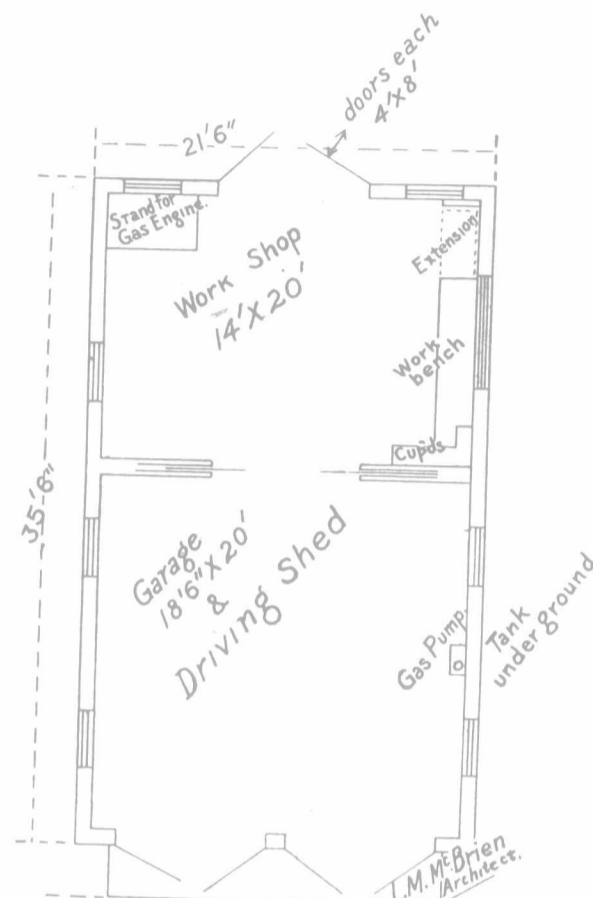
### AUTOMOBILES, FARM MOTORS AND FARM MACHINERY.

#### A Combined Workshop and Garage.

A satisfactory and convenient workshop is one thing which is lacking on the average farm, and yet it is a building which can be put to a good deal of use. With a set of tools and a suitable place in which to work, the average farmer is enough of a mechanic to make a good many of the necessary repairs about the farm. Such repairs can often be made at odd times when the weather is unfavorable for outdoor work. By having a vise and a small forge it is quite possible to repair machinery, and so save the time and expense entailed in taking it to a machinist. On a good many farms an automobile is now added to the farm equipment. This useful machine requires a proper building to shelter it from the elements. When building the garage it will not add very much to the expense and time to increase the size to make room for a workshop.

The accompanying illustration, by L. M. McBrien, shows a combined workshop and garage. The garage illustrated is large enough to use as a carriage shed as

well. It is 18 feet 6 inches by 20 feet, thereby allowing an abundance of room for working at machines. The workshop is 14 by 20 feet and is well lighted. A work bench runs along one side, with a large window above; an extension bench is fastened at the end of the solid bench. Cupboards and drawers are built in below the surface of the bench and also across one end. A place is indicated in the illustration for a gasoline pump, and also for a stand for a gasoline engine. Double doors are used so that some of the larger implements may be drawn into the workshop for repair. The walls may be built on a cement foundation. It may not be necessary to erect a building as large as the one illustrated, if it is to be used only as a garage and workshop.



A Combined Workshop and Garage.

#### Compression.

In order that the maximum power be obtained from a gasoline engine it is essential that there be good compression. If there happens to be a leak, be it ever so small, there will be a loss of power. Compression is of vital importance for the successful and economical operation of a gas engine. When turning the engine over slowly by hand an increasing resistance will no doubt have been noticed when the engine was at its best. So strong should the compression be that it requires an effort to turn the engine over the outer dead centre, if the cylinder and valves are in good order. "Gas Engine Troubles and Installation," by Rathbun, has the following on compression: "If the fly-wheel is released when the greatest resistance is felt it will bound back like a rubber ball from the pressure of the compressed air in the cylinder. If a leak exists in the cylinder it will not be as difficult to turn the engine slowly over dead centre. The greater the leakage of air the easier the engine will turn over the centre. For ease in starting, engines are generally supplied with compression-relief cams, or some device that lifts the exhaust valves and relieves the greater part of the compression, allowing the crank to be turned over the centre by hand to insure the initial explosion. Don't overlook the importance of compression. Test the engine frequently for leaks. This test is easily made on the smaller sizes of engines by turning them over slowly by hand against the compression. An engine may run fairly well, on a light load, with poor compression without a noticeable loss of power, but the instant that a heavy load is thrown on the engine slows down, or lays down on the job altogether. Difficulty in starting and increased fuel consumption may be the only signs of poor compression if the engine is under-loaded or running light.

"If the engine shows any indication of a compression leak, the cause should be located and remedied without delay, for the leak causes not only a waste of fuel and a loss of power, but will cause damage to the engine unless stopped immediately. A pressure leak seldom cures itself, but as a rule increases as time goes on, because of the enlargement of the opening by the burning action of the hot gases passing through it. Loss of compression is caused primarily by the wear of the cylinder parts occasioned by deficient lubrication of the cylinder, over-heated cylinder caused by poor circulation of the cooling water, continuous overloading, or by running the engine with retarded spark with a heavy load. Low compression causes poor ignition especially with engines that govern the speed by varying the quality throttling governors of the mixture, this difficulty being specially noticeable with light loads.

Compression is reduced when engine is used at high altitudes, as the atmosphere is rarer, this results in a lower power output from a given sized cylinder because of low compression and also because of the reduced quantity of mixture drawn into the cylinder.

Different fuels require different compression pressures, the richer gases requiring less compression than the lean, consequently the compression of a kerosene engine which should be about 50 pounds per square inch should be increased to about 70 pounds per square inch for gasoline. The compression can be increased by any of the following methods, and may be reduced by reversing the process: 1, Increasing the length of the connecting rod; 2, Putting shims or liners under the brass bearing of the connecting rod; 3, Removing shims or liners placed between the cylinders and the engine frame; 4, Putting plates on the piston or cylinder heads; 5, By shifting the position of the piston pin.

The piston rings are made so that they are normally a trifle larger in diameter than the bore of the cylinder in which they fit; when the piston and the rings are placed in the cylinder, the bore squeezes them to a smaller diameter, the difference in length of the ring circumference being taken up in the split portion. The elasticity of the ring, which tends to return them to their original diameter, forces them against the cylinder wall, which results in a gas tight joint at that point.

The mixture should be taken into the cylinder as cold as vaporizing conditions will permit. Warm intake air reduces the compression pressure, for the reason that the air is expanded before it enters the cylinder and consequently less air by weight is taken in by the suction of the piston. On engines using liquid fuel, it is necessary that the air be warm enough to vaporize the liquid, this consideration placing a limit on the temperature of the intake."

### THE DAIRY.

Keep the milk clean and the bacterial count will be low.

Which cow in the herd gives the most or the richest milk? The scales and Babcock test will give the information.

Grow protein in the form of clover, and avoid the necessity of paying out cash for this product so essential to heavy milk production.

Is the sire you are using a better individual than the previous one? If not, how do you expect to effect improvement in your herd?

Tuberculosis is an insidious disease which stalks through the land seeking whom it may lay low. Pasteurizing the by-products of creamery and cheese factory before returning them to the farm will help check the spread of the nialady among live stock.

Grading of milk and cream will encourage the careful dairymen to do even better, and will place the manufactured products on a higher basis. Paying by quantity instead of by quality will never strengthen our dairy industry. The Western Canada dairymen are already a pace or two ahead of Ontario dairymen in the matter of grading.

#### Milk for Cheese Making.

The season is at hand when many of the cheese factories which closed during the winter season will be opening their doors to receive their usual quota of milk. The relatively high price of some of the milk products has resulted in the closing of cheese factories in some localities. However, the present prices of cheese gives fair returns to the producer, especially when labor and the by-product from the cheese factory are considered. As a rule, delivering milk to the cheese factory entails less work than separating the milk and shipping the cream or churning it into butter. When cheese was about one-third the price it is at the present time the cheques from the cheese factory helped to lift the mortgage off many farms. Of course, comparing the price of labor and feeds then and now, the price of cheese in those times was probably on a par with that of the present. Canada, and especially Ontario, has gained an enviable reputation for the quality of cheese turned out from its factories, but yet there is room for improvement. A good deal depends on the quality of milk received. "The Book of Cheese," issued by Thom and Fiske, gives the following factors which influence the quality of milk for cheese-making. "Its chemical composition, the flavor of feed eaten by the cow, the absorption of flavors and odors from the atmosphere, the health of the cow, and the bacteria present." The first factor depends largely upon the breeding and individuality of the cow, but the others are almost entirely within the control of the producer. There is frequently a rather wide variation in the composition of milk from individual cows, due to the stage of lactation and to the physical condition of the animal. As a general thing, the percentage of fat and solids will increase as the lactation advances. In the making of cheese the idea is to retain as much of the solids as possible and to eliminate the water content. Fat in the milk is quite easily lost in the process of cheese-making, and as the fat content affects the quality of cheese care should be taken by the maker to retain as much of the fat as possible. The loss of fat in the manufacture of cheese at the present time is not nearly so large as it was a few years ago, owing to improved methods in the handling of milk. However, the yield of cheese from 100 pounds of milk is not altogether in proportion to the amount of fat, as the casein is the fundamental substance of cheese-making. It is this substance which coagulates under the action of rennet,

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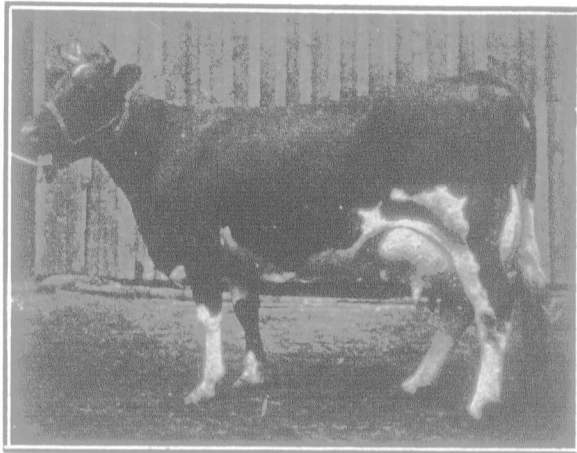
many of the cheese winter season will be their usual quota of some of the milk ng of cheese factories he present prices of producer, especially om the cheese factory ivering milk to the n separating the milk rning it into butter, the price it is at the cheese factory helped ms. Of course, com- ls then and now, the s probably on a par ada, and especially e reputation for the its factories, but yet A good deal depends 'The Book of Cheese,' the following factors k for cheese-making- vor of feed eaten by and odors from the w, and the bacteria ds largely upon the w, but the others are ol of the producer. e variation in the al cows, due to the cal condition of the ercentage of fat and a advances. In the ain as much of the e water content. t in the process of t affects the quality he maker to retain e loss of fat in the t time is not nearly owing to improved However, the yield is not altogether in s the casein is the making. It is this e action of rennet,

and which forms the curd which after going through various processes is pressed into the form of cheese as we see it on the market. This casein contains the protein material of the milk. Besides fat and casein, the milk sugar, which averages about five per cent. of a cow's milk, is in part retained in the cheese. However, the larger part of this sugar passes off in the whey. Albumen, ash, or mineral matter, and certain enzymes which are found in milk, are also partly incorporated in the cheese.

It is important that the milk be sweet and of good flavor. Sour milk cannot be handled by the cheese-maker, and one can may either spoil or greatly reduce the yield of cheese from a whole vat of milk. Undesirable flavors in the milk, which might be due to the cows eating turnips, cabbage, decayed feeds, or various weeds, will greatly affect the quality of the cheese. Then, too, milk is a substance which absorbs and retains odors from the surrounding atmosphere. This being the case, patrons of cheese factories should, in their own interest and in the interest of the cheese industry, take every care to prevent the milk becoming tainted. This not only applies to the feeds which comprise the cow's ration, but to the method and place of cooling the milk. As soon as the milk is drawn it should be removed from the stable and aerated in an atmosphere that is not tainted by odors from the stable or any decaying matter. The condition of the cow will also affect the quality of the milk. Care should be taken that the milk secreted for the first few days after parturition should not be sent to the factory. Nine or ten milkings should elapse before the milk is used for human food. There are also several diseases which cows may contract which will affect the quality of the lactic fluid. When a cow shows symptoms of disease the milk should not be used for food. Bacteria which are microscopic plants develop very rapidly with milk as a medium. This bacteria is very widely distributed throughout nature, and may be carried on particles of dust, chaff or hairs from the animal's body. These falling into the milk may cause contamination; therefore, the necessity for cleanliness at all times by the attendants of the cows and also of the dairymen. Some groups of bacteria are beneficial, while others are very harmful. Once these bacteria get into the milk they multiply very rapidly. In warm milk they increase in number more rapidly than in cool milk, thus the importance of cooling the milk to fifty degrees Fahrenheit, or below, as soon as possible after it is drawn. While this does not destroy the bacteria it, prevents to a certain extent, their multiplication. Pasteurizing will destroy most species of bacteria, and if the milk is then kept free from contamination it will not deteriorate for some time. In order to prevent the spread of disease, the spores of which might have gained access to the milk, it is a good policy to pasteurize the milk used for human consumption, and also the by-products of creamery and cheese factory which are used for feeding live stock.

If the cheese-maker is to manufacture cheese which will be a credit to the district, he must have good materials to work with. Some dairymen are altogether too careless in the handling of milk. They seem to forget that, while it is one of nature's best foods, it deteriorates very quickly unless properly looked after. Clean cows, clean stables, clean utensils, clean milkers, and a clean place in which to cool and keep the milk are

necessary in order to market a good product. If those attending the cows would use the curry-comb and brush more frequently to remove the loose hairs and dirt, and would then wipe the udder and flank before milking, a good deal of contamination would be avoided, and better quality milk would be delivered to the factory.



Rollo Mercena De Kol.

## The World's New Record Butter Cow.

It is now almost four years since Segis Fayne Johanna, an eight-year-old American-bred Holstein cow, caused a sensation in the dairy world by producing fifty pounds of butter in seven days, under official test. There were many American and Canadian breeders, among which were some of the strongest advocates of the Black and White breed, who prophesied that Segis Fayne Johanna had reached the maximum production that it was possible for a cow of any breed to attain. During the week of March 31, however, the five-year-old Canadian-bred Holstein, Rollo Mercena De Kol, broke down the high barriers and exceeded the former phenomenal record by almost two pounds. The exact figure for the world's new champion cow is 51.93 lbs. of butter, and a milk production of 738.9 lbs. in seven days. A feature which makes the new record all the more striking is that the record was made fifty-two days after freshening. Her entire official test ran sixty days and began on February 6, after being fresh ten days. Her thirty-day production was 200.34 lbs. of butter from 2,920 lbs. milk, while during the sixty days 5,795.8 lbs. of milk was produced yielding 337.49 lbs. butter. Her highest day's milk was 125.8 lbs., and her highest day for butter was 8.57 lbs. These figures give her a world's record for butter production from one to thirty days, and her sixty-day record is exceeded only by that of Ormsby Jane Segis Aaggie, a cow owned at Pine Grove Farm last year.

In breeding, Rollo Mercena De Kol is a daughter of Sir Rollo Banks Mercena, a bull bred on the same farm on which his daughter is now owned. His dam, Daisy

Banks 6th, is a sister to Alta Posch, whose 27.06-lb. seven-day record was the world's record for a two-year-old at the time it was made. The new champion was raised and developed by her present owner, J. B. Hanmer, a young man who is just twenty-three years of age. He has also added further laurels to the herd this winter by recently developing a 37.91-lb. three-year-old heifer. This heifer is Eva Spofford, and continuing on test for thirty days produced 2,210.1 lbs. of milk, and 143.99 lbs. of butter. The latter is the second highest world's thirty-day butter record for a three-year-old. Her dam is Elva Massie, a 31.67-lb. cow, owned by Mr. Hanmer. The home of these record producers is a farm of less than 100 acres, situated in Oxford County, three miles from the town of Norwich. Many Holstein enthusiasts, among which were a number of Americans, have wended their way to Mr. Hanmer's during the past few weeks in order to view these cows which are such heavy producers.

## HORTICULTURE.

### The Properties and Uses of Nitrate of Soda.

BY PROF. R. HARCOURT, O.A.C., GUELPH.

As a large amount of nitrate of soda is again available for use by farmers and gardeners, it may not be out of place to discuss its properties and uses.

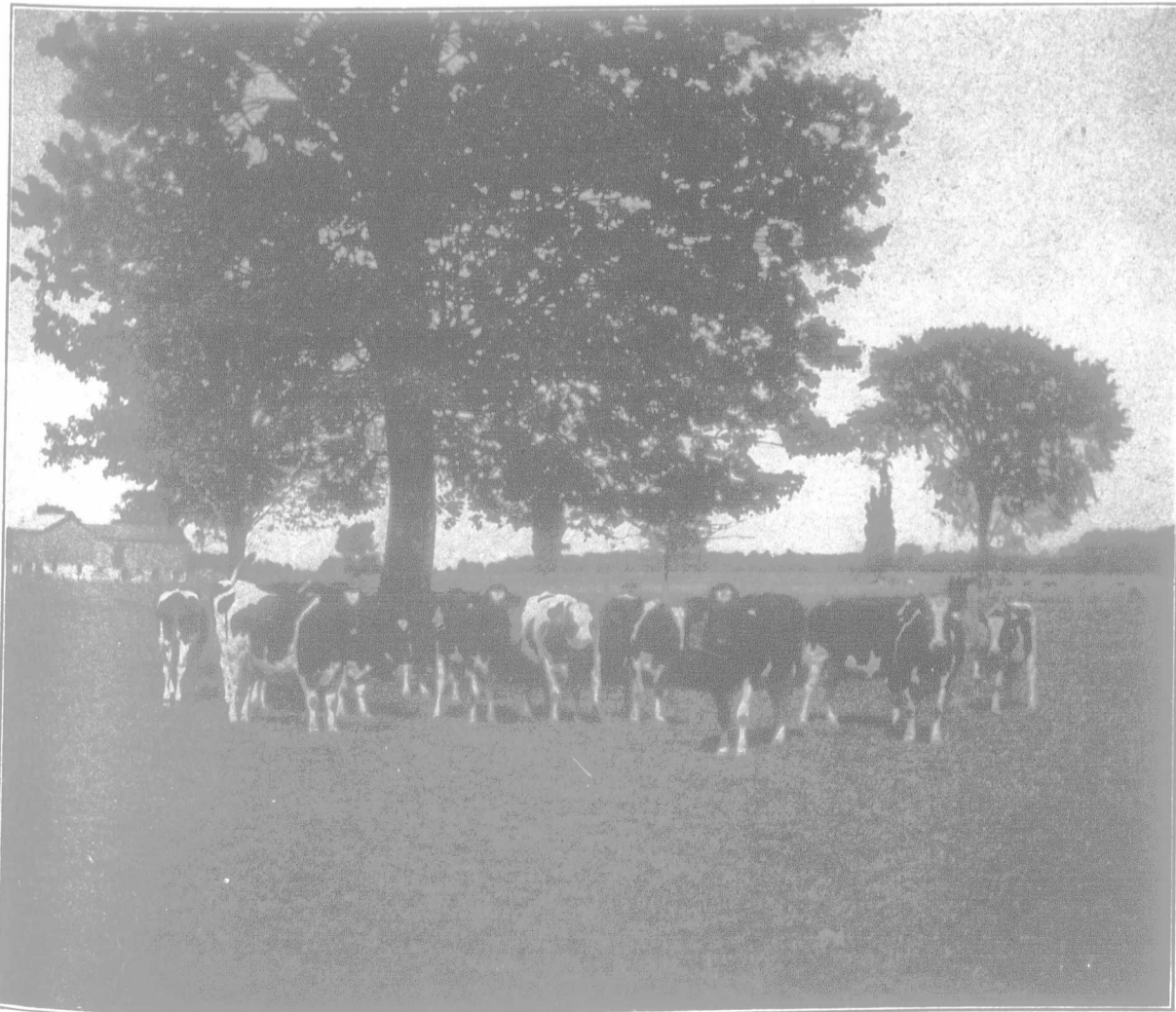
The three main constituents of what are termed complete fertilizers are nitrogen, phosphoric acid and potash. Of these three, nitrate of soda carries only the first. This nitrogen is, however, in such a form of combination that it is not only very soluble, but it is in a form that it may be very quickly absorbed by plants. Its extreme solubility is a disadvantage in one sense, as it may be lost by leaching down through the soil; but, the fact that it is soluble and immediately available renders it one of the most important and most quick-acting nitrogen-carrying materials on the market. These very properties, however, render it imperative that care be exercised in its application or loss of material may result and much damage may be done to crops. Thus it should always be applied as top dressing. A part may be applied while preparing the seed-bed, and the balance after the plants are up, but some experienced gardeners claim the best results are got when it is all applied at the later period. If more than 100 pounds per acre be used, it should be put on in more than one application, ten days or two weeks apart. The point to be kept in mind is that the nitrate is so soluble and so readily available that it should be applied at a time and in such quantities that the plant will make immediate use of it. It is also important to remember that this material should be applied only in the early stages of growth.

One of the main functions of nitrogen as plant food is to promote leaf and stem growth. Thus abundance of available nitrogen in the food of the plant, produces a big growth and naturally retards maturity. Frequently, in favorable seasons and on certain soils, grain grows so rank that the crop lodges and the yield of grain is reduced, fruit trees may produce wood instead of blossom and fruit, and vegetables grow all top, because there was too much nitrogen available to the plant. On the other hand, there are crops that are grown for the leaf and stem, on these we can make heavy applications of nitrogen without doing harm, for we do not seek maturity, and quality depends upon quick growth.

But even for crops which we wish to mature and which do not take up much nitrogen, it may pay to use nitrate of soda. Thus a small dressing of 75 to 100 pounds to the acre at this season of the year on winter wheat that has not wintered well, may be very beneficial. This is because the water of the fall and spring rains percolating down through the soil have carried with it much of the nitrates and the soil has not warmed up sufficiently to allow of their formation again, consequently, the plant has great difficulty in getting this constituent and a small application of the nitrate may give big returns.

Nitrogen is a constituent of the food of all plants; but, in addition to the difficulty of securing nitrogen in certain seasons of the year, as mentioned above, plants also differ in their ability to take up nitrogen. Thus, mangels even when grown upon land heavily fertilized with stable manure, will make good use of the nitrogen of nitrate of soda. No other form of nitrogen compounds appears to be so helpful. In our own experiments, we have frequently got an additional five or six tons of mangels from the application of 150 to 200 pounds of nitrate of soda. Half the nitrate of soda was applied just previous to making the drills and the balance after thinning. Field experiments have also demonstrated the fact that abundance of nitrogen in the soil is essential to the production of sufficient top to insure a big crop of potatoes. The starch stored in the tubers is gathered by the leaf from the air, and there must be good leaf surface for this purpose if there is to be a big yield of potatoes. Other food constituents are, of course, necessary, but a large top is essential.

In the garden, nitrate of soda may be used on many crops, a good teaspoonful along with about twice that amount of acid phosphate will frequently help a tomato plant make a good start when transplanted in the field. Many other garden crops may be helped in a similar way, either at time of transplanting or thinning. On some of the crops such as lettuce, spinach, etc., very large quantities, 400 to 500 pounds per acre may be applied without fear of doing harm, while others, such



A Few Trees, Here and There, Add to the Beauty and Value of a Dairy Farm.



as tomatoes, which must ripen their fruit, would be spoiled by similar application, especially, if applied late in the season. The nitrate may be applied by sprinkling it along the row but not touching the plants, or by broadcasting it over the whole of the ground when the leaves are dry. The material is caustic and if it remains on the leaves, will destroy them. It is never safe to apply the nitrate of soda late in the season, as it will force growth at a time when the plant should be maturing the wood. Many trees, shrubs and vines have been winter-killed by going into the winter with immature wood. Not necessarily due to the application of nitrate of soda, but nevertheless, due to too much nitrogen.

If, however, the properties and functions in nitrate of soda are kept in mind, there should be no difficulty in using this fertilizer to advantage on farm, garden and orchard.

In conclusion, it may be well to again draw attention to the fact that nitrate of soda carries only one of the essential plant-food constituents. Its place is, therefore, to supplement the use of either stable manure or commercial fertilizers, by making application at such times and in such ways as will promote growth in the way desired.

### Varieties of Vegetables for the Farm Garden.

A well-planned garden is usually a greater success than one planted haphazardly. To plan a garden properly the different varieties and kinds of vegetables must occupy certain positions so it is necessary to have, at least, a mental plan before the work is commenced. A knowledge of varieties is a great help when laying out the garden and to assist in this direction we are listing a few of the standards usually found in successful farm gardens. They are recommendations only; discuss them with your neighbors and with garden enthusiasts in your district who have a knowledge of varieties. True seed firms are constantly introducing new and improved kinds which may well be tried out, but the following list includes varieties that are known to be reliable. The crops which are more or less permanent in character are mentioned first in this list, then we shall mention the kinds that are usually transplanted, and then will come those crops which are seeded in the garden every spring.

**Asparagus.**—Palmetto, Argenteuil and Conover's Colossal are staple varieties of asparagus.

**Rhubarb.**—Victoria and Raspberry are two popular varieties.

**Strawberries.**—The varieties here depend very much upon soil and local conditions. A good all-round domestic berry is the Senator Dunlop. The Gandy is an early berry, but not an exceptional bearer. Michel's Early is also an early kind. The Glen Mary and Sample are two kinds which are popular in some districts. The Williams and Warfield do well when planted together; the latter is imperfect in the flower. The Williams is very popular among growers who ship large quantities. Its green tip helps it to stand up in shipping, but detracts from its value for domestic purposes. See article in issue of April 24, 1919.

**Celery.**—White Plume, or Golden Self Blanching, are desirable varieties for the early crop. Paris Golden Yellow comes on in mid-season. For the later kinds, one can choose from Giant Pascal, Evans triumph and Perfection Heartwell.

**Tomatoes.**—Chalk's Jewel is one of the best general-purpose tomatoes grown in the garden. Stone and Success are two varieties that are used considerably under field conditions. Bonny Best, Byron Pink, and Early Detroit are other varieties from which selection can be made. Earlianna is perhaps earlier than any of these, but it produces a very rough fruit. Chalk's Jewel, Bonny Best and Stone would make a very good collection.

**Melons.**—Rocky Ford, Emerald Gem, Hackensack and Montreal Market are good kinds of musk melons, while Hungarian Honey and Cole's Early of the watermelon type are most likely to ripen.

**Cabbage.**—Jersey Wakefield is a good early variety of cabbage and Early Winningstadt is another. Copenhagen Market is in many cases considered a medium or autumn kind, while in other districts it is classed as early. For late, use Danish Ball Head or Drumhead Savoy. For a red variety, Mammoth Rock or Red Dutch will give good satisfaction.

**Cauliflower.**—Early Erfurt and Early Snowball should give good specimens of this crop.

**Lettuce.**—Make weekly sowings of lettuce and for varieties select from Grand Rapids, Black Seeded Simpson, Hanson, Big Boston, Paris White Cos, and Crisp as Ice.

**Radish.**—Radishes should be planted at intervals of a week or ten days Rosy Gem, Scarlet Turnip, White-Tip, and French Breakfast are good varieties. White Icicle is a good white radish. It is just as well to have two or three different kinds.

**Peas.**—For the early crop try Extra Early, Alaska, Nott's Excelsior, American Wonder, or Gradus. For late, use Advancer or Stratagem.

**Beans.**—For persistency in production try Hudson Wax. The vines produce over a long period and the quality of the product is good. Other suitable varieties are Keepey's Rustless Golden Wax, Detroit White Wax, Stringless Green Pod, Valentine, and Wardell's Kidney Wax.

**Cucumbers.**—For slicing, use Davis Perfect, White Spine, and Cumberland; for pickling, Westfield, and Chicago Pickling are good.

**Citrons.**—Colorado Preserving and Red Seed are two varieties likely to give satisfaction.

**Beets.**—These should be planted for early summer use

and again about the first of June for winter storing Egyptian Turnip is an extra early kind. For moderately early, try Early Model or Eclipse. For late summer and winter, Detroit Red and Long Smooth Blood should be satisfactory.

**Carrots.**—Every gardener should at least try Chantenary, and he will make no mistake in using it for the main crop. Danvers and Rubicond follow closely for quality and yield. Make a later planting for winter use.

**Parsnips.**—Hollow Crown is the standard variety of parsnips, while Guernsey is another one sometimes used.

**Turnips.**—The supply can usually be obtained from the field crop of Swedes. For early in the garden try Extra Early, Purple Top Milan, or Golden Ball.

**Pumpkins.**—Sugar and Jumbo are two good varieties.

**Squash.**—For an early squash use Crookneck, or White Best Scallop, Hubbard is a splendid late variety.

**Corn.**—Broadly speaking there is no better variety of garden corn than Golden Bantam. Plantings should be made at intervals of a week or ten days. Country Gentleman and Stowell's Evergreen may be planted for late use.

**Onions.**—The Yellow Globe Danvers, Prize Taker, Red Westerfield, Southport Yellow Globe, and Southport Red Globe, are the varieties most grown, with preference given to the first.

**Spinach.**—Try Victoria, Virofly and Bloomfield.

**Egg Plant.**—Black Beauty and New York Improved are two common kinds.

**Kohl-rabi.**—Early White or Purple Vienna are good.

**Vegetable Marrow.**—Long White Bush and English Vegetable Marrow are common kinds.

Representatives of the various organizations which have combined in the past to stage the Fruit, Flower and Honey Show, usually held in November, met again recently in Toronto and decided to revive the Horticultural Exhibition. The dates set tentatively were November 11-15. Several new features will be added to the exhibition, one being an extensive potato exhibit. Another will be an exhibit prepared by the Federation of Women's Institutes of Canada. The Fruit, Flower and Honey Show has not been held since 1913. The buildings at the Exhibition Grounds, Toronto, have, since that time, been used for military purposes. Growers generally will be glad to learn of its reinception and will probably do all they can to make the forthcoming Horticultural Exhibition a success.

## POULTRY.

### Feeding Young Chicks.

According to Bulletin 247 of the Ontario Department of Agriculture, when the young chick leaves the shell it has sufficient yolk attached to the digestive tract to supply it with food for five or six days. For this reason, according to the same authority, "chicks should not be fed until they are sixty, or better, seventy-two hours old." Bulletin 91 from the Poultry Division of the Dominion Experimental Farms advises against feeding chicks until they show positive signs of hunger, "which will be between two and three days after hatching." If fed too soon, before the yolk is absorbed, indigestion and bowel trouble may result. Investigators have found that 48 per cent. of the original energy in the egg is found in the abdomen of the chick, and it is this natural provision that makes possible the shipping of baby chicks.

When it is time to begin regular feeding, frequency is necessary. They should be fed only a little at a time, at periods about two or three hours apart for the first ten days or two weeks. When the days get longer the chicks should get fed six times a day instead of five. Frequency of feeding is particularly important where chicks have been artificially hatched, because they do not have the hen to scratch for them and keep them busy. Professor W. R. Graham suggests 7, 9 and 11.30 in the morning, and 2.30, 5.30 and 7.30 p.m. as suitable times for feeding. It will be noticed that the first two feeds are only two hours apart. This is to avoid a heavy feed in the morning, when the chicks are hungry. Whether the first feeds should be dry or moist seems to be a subject of more or less contention, but at Guelph the best success has been secured from rolled oats or stale breadcrumbs mixed with eggs that have been boiled for thirty minutes and finely ground, shell and contents. The mixture is made up by measure, one part of eggs to six parts of breadcrumbs or rolled oats. Such a feed is nearer to the natural diet of bugs and seeds than a moist feed. After the first few days, a seed mixture can be given occasionally and can be purchased or made up at home as follows: 35 parts of cracked wheat, 30 parts granulated oatmeal, 30 parts of small cracked corn, and 15 parts chicken size grit. Experiments have shown that to avoid over or under-feeding chicks should get about one ounce of the mash to 12 chicks per day at first, increasing from about the fourth or fifth day, at the rate of a quarter of an ounce per small chicks should be weighed and not measured. By the twelfth day a flock of sixty chicks should be getting five ounces of mash feed and two ounces of chick feed, the latter added very gradually from the fourth or fifth day as stated above, and serving as the increase. The latter would replace the last morning and the last afternoon feeds of mash. When the chicks are old enough to eat whole or coarsely cracked grain, the chick feed may be discontinued.

The skilled feeder will keep his chicks always active and busy. Exercise is absolutely essential, and if the

chicks seem at all listless it is a good plan to provide them with something they like very much and will scrape over. Lippincott says, in this connection, that "angle worms are the best thing for this purpose, but are not always easily available. Long pieces of onion made by slicing the onions, separating and cutting the rings will serve nearly as well after the chicks become accustomed to it. Over-feeding or infrequent feeding is likely to result in listlessness or dumpy on the part of the entire flock, which should be recognized at once as a danger signal and some means of living them up resorted to." Also, he says, "in feeding little chicks it is absolutely essential that the grains be perfectly free from mould or dust and the meat scraps from taint. So important is this in newly-hatched chicks that poultrymen frequently go to the expense of purchasing kiln-dried grain in order that they may be sure that it has not heated or moulded. A feeder should always take the precaution to bury the nose in a double handful of any grain intended for newly-hatched youngsters in an effort to detect the slightest suggestion of sourness or mustiness. Meat scraps should also be carefully scrutinized for taint. Only those feeds which are perfectly sweet may be fed without grave danger of a high death rate."

Plenty of fresh water is necessary from the start and, after ten days, sour milk or buttermilk may replace the water. Sour milk of some kind should always be used, but in moderate quantities, for fear of over-feeding. Bone meal is also advisable as an addition to the mash after ten days to develop bone in the growing chick and prevent leg weakness. Powdered charcoal, after the first three or four days, will also help in preventing diarrhoea and correcting any digestive disorders.

Bulky foods are often necessary as a kind of filler after the first week or so. Such feeds should possess digestibility and palatability in addition to bulk, and should not be too highly nutritious. Cooked vegetables, reduced to a crumbly condition by mixing with middlings or shorts are recommended as satisfactory and economical by the poultry department at Guelph, when confined indoors several shovelfuls of fresh, clean earth should be provided for scratching, and if the grain mixture is thrown in this soil mixed with fine clean litter, opportunity for plenty of exercise will be given. Green feed is just as essential as grit or exercise, especially where chicks are not on free range. It must be remembered, however, that green feed cannot replace any of the other feeds; it can only supplement them and aid in keeping the bowels and blood in order. Sprouted oats are excellent where one cares to take the trouble of growing them as are, also, lettuce, cabbage, rape and root sprouts.

At four weeks of age the number of feeds can be reduced to four each day, and at seven weeks to three feeds. Not nearly so much care is necessary in feeding after the first two weeks where the chicks can get out on range soon after they are hatched. Even when the snow is on the ground it can sometimes be swept away and the chicks allowed to get out on the ground.

### Experiences With A Small Flock.

EDITOR "THE FARMER'S ADVOCATE":

I have been reading with interest the different articles in the Poultry Department and I thought I would write a little of my own experience, and there might be something in it that would be helpful to some of the readers. I have never kept a very large flock, not more than twenty-five, but they pay very well. However, I am thinking of launching out in the business somewhat deeper in the near future. I think it is a good plan to start with a small flock, and sort of feel your way until you are sure of making it a paying business. I have known different people, one man in particular, that thought he was going to do a big business with poultry. He bought an incubator, and enough eggs to fill it, and then began to count his chickens before they were hatched. He thought he would have about six hundred chickens and he only had something over one hundred, but that was because he did not understand how to run the incubator properly. Before the summer was over he killed all the chickens he had left, and dropped the whole thing, after making a miserable failure of it. But poultry can be made to pay, and pay well, if they are handled properly. Of course the first thing to do is to get the best stock possible. I have often seen the question asked, "What is the best breed?" and the answer is that there is no best breed and I think that is right. I think one of the most important things is plenty of exercise, for it keeps the birds healthy and vigorous. I do not think there is anything better than free range in summer, and a chance to pick most of their own living. Of course the chickens cannot always run as they will destroy garden crops, but they can have a large yard with something sown in it to keep them busy. An orchard is an excellent place for them, especially when they have access to grain sown for them to feed on. Buckwheat is very good for this purpose, and they will pick their own living until the ground freezes.

A small colony house can be hauled to a grain field after harvest with the hens in it, and they will clean up what would otherwise be wasted.

Another very important thing is a certain amount of green feed for the fowl in winter and the best material is sprouted oats. It is more of a problem to keep the hens laying in winter than in summer, but it can be done if they are given the proper attention. The hens are making music while I am writing this, almost a continual cackle, and it is what I like to hear for it means business. I hope more of the poultrymen will write of their experience for by doing so we help each other in different ways.

Queen's Co., N. S.

I. C. J.



FOUNDED 1866

## FARM BULLETIN.

### New Appointments at the O.A.C.

Two important appointments have been made to the Faculty of the Ontario Agricultural College, Guelph. Frank E. Millen, B.S.A., has been appointed Professor of Apiculture in succession to Dr. Burton Gates. Dr. Gates, it will be remembered, was appointed to the staff only a few months ago. He was formerly attached to the staff of the Massachusetts Agricultural College

at Amherst, and had a high reputation in his profession in the United States. He decided to return to his native country, and consequently another appointment was necessary. Mr. Millen graduated from the Ontario Agricultural College a few years ago, and as an undergraduate specialized in beekeeping and did work from time to time for the Department in this connection. After graduating he held positions in apiculture on the staff of the Agricultural College at Lansing, and latterly on the staff of the Agricultural College at Ames, Iowa. He is regarded as a strong man, and his return after his experience across the line will, no doubt, be welcomed by those engaged in beekeeping in the Province, as he

will act as Provincial Apiarist in addition to his duties on the College staff.

F. L. Ferguson, B.S.A., has been appointed as Lecturer in Physics in succession to W. H. Scott, deceased. In addition to his lecture work Mr. Ferguson will have immediate supervision of the drainage propaganda carried on in the Province. He has already had considerable experience in drainage work, having served on the drainage staff as an undergraduate and having held a position as drainage surveyor under his predecessor for the past year or more with headquarters at Chatham. He is, therefore, familiar with the duties he will be called upon to perform.

# Parliament Patiently Waits for the Budget Speech.

ONE would have expected very naturally that Parliament, having dealt very leisurely with the pressing problems of reconstruction during the two months previous to the Easter holidays, would, immediately after sittings were resumed, begin to deal with these matters and satisfy the people that the era of reconstruction is being approached with the situation well in hand. On the contrary, so much more important are the things that must be done than those that have been done during two months that have just been talked away, that unless somebody's foot goes down pretty hard on the accelerator, the summer months may be well on before the House prorogues. Governments seem to be pretty much like the rest of us—they need some time after a holiday to settle down to real work. Talk is usually considered to be a cheap commodity, but it would seem to have been affected by the higher cost of living, just the same as all other foodstuffs; and, as a result, the yards of language that are being fed to the Canadian people just now, are likely to cost them a pretty fair price. It costs money to keep Parliament in idleness, but of course, those who favor Orders-in-Council may argue that Government still goes on; and more expeditiously than if suggestions were sought from Parliament. It would certainly be a most difficult task to term the accomplishments of the present session into anything like a satisfying array. Nearly everything of vital importance has been studiously evaded up to this time. The returned soldier problem, if it is as serious a problem as the calamity howlers and natural agitators, would have us believe, is not yet dealt with. Ministers and members have danced and pranced all around it; they have slapped it on the wrist and stepped on its toes and generally added to the universal anxiety without doing anything. The Soldiers Land Settlement Scheme has not yet been discussed, although the work is going on by Order-in-Council and it is to be supposed that something will be said sometime about it so as not to entirely ignore the functions of a responsible House of Commons in a matter of such importance. The Budget speech is bound to come, of course, and the debate on it will follow; one might almost say definitely that even this dawdling session will see a budget speech and, in fact, a very prolonged debate upon it, but why it should not come earlier than eight or ten weeks after the House meets, is not altogether clear. In addition, there are highways, technical and vocational education, railways, the cost of living, estimates, housing, the franchise, prohibition, and many other things to consider before the session can be properly rounded out. It is difficult to believe that the next two months can see all these things accomplished, but it may be that the Government and the House can work just as diligently as they have waited patiently for Sir Robert Borden to come back. Time alone will tell.

### Who is Behind the Press.

Hon. Rodolphe Lemieux, M. A., introduced a resolution embodying a principle that "The Farmer's Advocate" has always urged strongly. This has reference to the publication from time to time by all newspapers, magazines, trade journals, and other periodicals, of the names of owners, managers, editors and stockholders, so that the people who read such publications may know what, if any, interests are behind them. Hon. A. K. Maclean, speaking for the Government, said that he would like to give the matter further consideration and asked that it be brought up again when the Post Office estimates are being considered.

Resolutions amending the Fertilizers Act and the Live Stock and Live Stock Products Act were introduced and the bills read the first time on Tuesday, April 22. Practically no discussion took place but the purpose of the former is to provide that phosphoric acid contents shall be stated in certain terms in the guaranteed analysis of a fertilizer; that the guaranteed value must be plainly printed upon a tag and attached to every package; and that the retailer shall affix stamps to every package to the value of one cent for every hundred pounds. The amendment to the Live Stock and Live Stock Products Act will make absolutely certain that farmers can buy as well as sell on live-stock markets. It will also provide that the Minister may make regulations regarding the inspection, grading or branding of live stock or live-stock products, either produced in, or imported into Canada.

### Telephone Company Seeks a Favor.

On Wednesday of last week the special committee, appointed to consider the Consolidated Railway Act which has several times been before both the House of Commons and the Senate, met and had up for consideration the question of provincial rights. One of the clauses quite fully discussed and re-inserted by the Committee, provides that any railway or part thereof which is

leased or operated by any transcontinental railway system shall be declared a work for the general advantage of Canada. This brings such a road under the jurisdiction of Federal legislation and automatically makes it subject to the decisions of the Board of Railway Commissioners. This has not been the case in the past and the item, subsection (c) of clause 6, having been passed formerly by the House, had been struck out by the Senate. It was opposed in committee by the C. P. R. and the Province of Quebec. Railway employees supported its re-instatement on the ground of public safety and Hon. F. B. Carvell strongly urged its inclusion in the Act.

The Minister of Public Works also opposed an amendment to subsection (b) of Section one of Clause 373, sought by the Bell Telephone Company. The Company's amendment would permit them to erect shorter poles in rural districts than would be permissible under the minimum height prescribed by the Act or by the Board of Railway Commissioners for cities, towns, and incorporated villages. The argument advanced by the Company's representatives was that the Standard 25 foot poles are in general use and these could usually give only about 19 feet clear. Moreover, crossbars might be some distance from the top of the pole and reduce even this distance by one or more feet. The committee adjourned before the matter was fully discussed, but the general impression seemed to be that if the minimum was made 19 feet for rural districts, except for highways and farmers' crossings, the arrangement would be satisfactory. The discussion will be finished at a later sitting.

Here was an instance where, but for the prompt intervention of the Minister of Public Works, and the support he received from a few others who saw the force of his objection, the matter might have resulted in great inconvenience to many farmers and a considerable saving to the Bell Telephone Company, secured at the expense of these farmers. There are far too many instances now of trees being ruthlessly destroyed along roadsides to satisfy the greed of private telephone and telegraph companies, and in spite of the protests of the owner. It will be quite impossible to make progress in the beautification of our highways, and to add improvement to the farm frontage, by the planting of shade or fruit trees, if public utility companies are allowed to construct lines so low as to despoil any plantings that are made, of their beauty. Twenty-two feet is plenty low enough and it is unfortunate that there are not sufficient farmer members in the House to give such matters their due prominence in the deliberations of parliamentary bodies.

### Flax Industry Expanding.

A resolution that had for a long time been standing in the name of S. F. Glass, East Middlesex, was brought up just prior to the adjournment of the House for the Easter Holidays. The resolution had reference to the flax industry in Canada which has grown from 2,000 acres in 1912 to 25,000 acres in 1919, and carried with it four recommendations, which are briefly summarized as follows: First, that a modern experimental and demonstration station be established at some convenient and central point in the flax area, to advise regarding the best methods of retting, scutching and preparing flax fibre for market; second, that the Government should take steps to investigate new and improved machinery to reduce the amount of hand labor now necessary in flax production; third, that a grading system consistent with world standards and world markets be established so that the grower may obtain the full economic value of his product; and fourth, that in view of the fact that farmers, urged by stress of war, have increased their production of this crop more than eighteen fold and have demonstrated in the world's markets that Canadian flax fibre is equal in quality to the best Continental standards, being superior to any produced in Russia, which hitherto produced 75 per cent. of the world's supply, the Government should guard this industry and co-operate with the growers so as to obtain the full value of the crop to the country by encouraging the full development of its manufacture from the field to the loom. Some of Mr. Glass' remarks are herewith given because they point to conditions existing in an industry of interest to farmers, that are not generally known:

"I desire to bring to the attention of the Minister and of the Department of Agriculture the very great importance, if we are to develop this industry on a broad and successful basis, of the closest care and jealous

scrutiny and protection of our standards of seeds. We must also have the confidence of our farmers, and we must disabuse their minds of the prejudice that still exists that flax seed is dirty for the land, that it takes away from the soil, essential properties. These prejudices are easily tested by an examination of the reports of agricultural farms in this country, in the United States and in England, and there would seem to be no reason why these prejudices should continue to exist. Before the war we were confronted with this condition, that our production was insignificant because, while we could grow a good quality of flax, we could not compete with the markets of Russia on account of cheap labor in that country and cheap labor in France and Belgium. Those conditions have, however, been materially changed because, owing to the demand for greater production, man has set his ingenuity to solve those problems which, for years, have apparently more or less baffled humanity. In Great Britain and Ireland, in the last three years, more progress has been made in inventing and improving mechanical appliances to manufacture fibre from flax straw than has been made in centuries gone by. The industry is extending well over the Province of Ontario and at the present time 47 mills are reported to the Department of Agriculture with a total flax area last year of 18,000 acres, and an area rented for the purposes of this year's production of 25,000 acres.

Tests have been made under Government direction in England and Ireland in their experimental farms in regard to the production of flax, and they have demonstrated that Canadian seed, side by side with the World's established standards, Dutch (White Flowering), Yorkshire, French, Irish, Russian (Perneau Crown), and American (Minnesota), ranks amongst the very first. At present Great Britain is controlling all the seed that will be sown for fibre in Great Britain next year. Great Britain controls the price at which the seed shall be sold and the profit that wholesalers shall receive for the sale of it. In the list of prices issued to the trade only in March last, which appeared in the Linen Circular, a linen journal in Ireland, Canadian standard fibre is the very highest priced seed offered to the growers of Great Britain of all the world's standard varieties. It seems to me that it is very important that we have been able to attain so high a reputation in the production of our seed. Great Britain next year will be dependent largely on the seed grown in this country for her crop of 1919. If we are to make a success of the production of flax fibre, we have to put it within the power of the farmer to get the full economic value of all the straw that he produces, not to sell his straw to the flax mill, and thus get the small end of the deal, but to do as he would with his wool, to produce his own fibre from the straw and then to sell his fibre in the market."

Following the member for East Middlesex, J. E. Armstrong, East Lambton, said, in part: "It is absolutely necessary that the growers of flax in Canada should take advantage of the market that is offering in Ireland and elsewhere, but unless our seed and fibre is properly classified, we cannot expect to receive the returns we otherwise would. The day is not far distant when we shall have a Government-owned elevator in the province of Ontario, and I hope when that day comes the elevator will be used, to some extent at least, for the purpose of cleaning not only the seed grains and other seeds that are largely used in the Province, but also the flax that is sent out of the country stamped by the Government as Canadian-grown flax."

Hon. T. A. Crerar, Minister of Agriculture, spoke at some length, reviewing the work of the Department in encouraging the flax industry by experiments and keeping a lookout for new machinery. He thought another experiment station would hardly be justified now, but that later on one might be of value in Western Ontario. The Minister also agreed that standardization of seed is desirable but that standardization of fibre would be very difficult. The use of flax straw produced in Western Canada was also mentioned by Mr. Crerar, who said that every year hundreds of thousands of tons of flax straw are burned annually. Experiments in Canada have shown that binder twine can be made from this straw, and several carloads of straw will be manufactured into twine this summer in an experimental way.

### Government Railways.

At the time of writing the House is putting in its third day discussing Bill Number 70, to incorporate the Canadian National Railway Company. The Bill is a long one, containing thirty sections, and every section is fully discussed. According to a statement made by the Minister of Railways and Canals, the railways now operated by the Canadian Government are as follows:

"The line between Winnipeg and Moncton, the

is a good plan to provide they like very much and will say, in this connection, that best thing for this purpose, but available. Long pieces of onion skins, separating and cutting the well after the chicks become feeding or infrequent feeding sickness or dumpiness on the part should be recognized at once some means of living them up says, "in feeding little chicks that the grains be perfectly and the meat scraps from taint. ly-hatched chicks that poultry expense of purchasing kiln they may be sure that it has A feeder should always take the nose in a double handful of ewly-hatched youngsters in an test suggestion of sourness or s should also be carefully Only those feeds which are ed without grave danger of a

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International Railway between Moncton and Sydney, all the branch lines connected with the Intercolonial, and the Prince Edward Island Railway. The Quebec and Saguenay is being operated by the contractors at the present time, but when it is completed it will also come into this Canadian National system. The Hudson's Bay Railway has been placed under the management of the Canadian National Railway system."

The Government's avowed intention and desire is to operate the Government railways without political influence or patronage as much as possible, and the following quotation from Sir Thomas White's remarks, bear directly on this point:

"I am exceedingly desirous, as I am sure the Government is, that this system should be administered absolutely in the public interest without interference on the part of Governments having regard to political considerations. I do not know of any way in which it can be done consistently with the principle of responsible government other than that suggested here, namely, that the Government should appoint those who are to administer the system, these men to have a free hand in the administration."

"The greatest safeguard that could be had against political interference should be in the character and standing of the men appointed to the board. My own view is that public ownership will be a success in Canada in almost direct proportion to the character, integrity, responsibility and ability of those who control and direct the operations of the Government system. The greatest service that the Government can render in reference to transportation in so far as it is under Government administration, is in the appointment of

first-class men of the highest standing in the community, men of such self-respect that they will feel that they will be judged so much by the success of their administration of the system that they will not brook any interference on the part of the Government."

Furthermore, appended to the Bill there is a list of 31 constituent and 14 subsidiary companies of the Canadian Northern System, and while the preamble to the Bill says that "it is expedient to provide for the incorporation of a company under which the railway works, and undertakings of the companies comprised in the Canadian Northern System may be consolidated and together with the Canadian Government Railways, operated as a National Railway System," the following remarks by Hon. Arthur Meighen, further commit the Government to a policy of unified management and control as rapidly as possible:

"One of the purposes of this Bill is to pave the way for amalgamation and for getting rid of the various entities that have comprised the system as separate entities. It is the intention to amalgamate just as rapidly as we can, but all cannot be amalgamated, because in respect of some there is still outstanding stock. Where there is outstanding stock, amalgamation would be very inconvenient because stock would have to be given. Where there is not outstanding stock, it is the purpose to amalgamate without any unnecessary delay. Of course, immediately amalgamation takes place, the name goes out of existence."

#### Miscellaneous Matters.

On Thursday, April 24, W. F. Nickle, Kingston, introduced Bill 74, an act respecting divorce. Briefly

put, the object of the Bill is to constitute divorce courts in Canada, the Supreme Court of each Province and the Exchequer Court for the Dominion, to constitute such courts. According to Mr. Nickle, "the general purport of the Bill is not only to facilitate divorce, but to harmonize the divorce laws of the country and to make the position of man and woman equal." The Bill was read the first time with no discussion.

Much speculation has existed as to when the budget speech will be delivered, the natural conclusion being, from the previous conduct of the session that most things are hanging fire awaiting this event and Sir Robert Borden's return. Sir Thomas White announced last Friday, in reply to a question, that the budget speech might be expected about May 15, the Natural conclusion being that the Government hopes that Sir Robert Borden will have returned by that time. From what we have learned we are inclined to believe that should he not be back by that time, further delay is improbable.

The Government apparently has no intention of fixing the price of wheat this year, although Sir Thomas White's information from the Wheat Export Company is to the effect that Great Britain will purchase all the wheat and flour of the coming crop. Up to a month ago the Government had advanced a total of \$170,000,000 for the purchase of wheat and flour from the 1918 crop.

Horse racing will still be subjected to war-time restrictions, since it is the decision of the Government not to repeal the Order-in-Council respecting race tracks. An enquiry will, however, be instituted into the whole matter, with the probable result that some kind of Government control will be evolved before another session comes around.

## What the Ontario Legislature Did for Agriculture.

BY W. BERT ROADHOUSE, DEPUTY MINISTER OF AGRICULTURE.

As usual, many matters of agricultural interest were dealt with at the Session of the Ontario Legislature which has just concluded. A glance at the comparative statement of appropriations will show that generous provision has been made for financing the special agricultural work carried on through the Department. It is worthy of note that there was a remarkable unanimity in the House in the matter of these appropriations. The different votes passed with very little discussion and with no criticism, members on both sides concurring in the recommendations made by the Minister in this regard.

#### Appropriations for Agriculture. (Including capital account)

	1918	1919
Civil Government, Printing Reports and Bulletins, Statistics, Miscellaneous.....	\$106,750	\$145,248.46
Agricultural College.....	353,130.52	477,635.46
Agricultural and Horticultural Societies.....	175,975.00	186,975.00
Live-Stock Branch.....	65,768.74	80,750.00
Institutes Branch.....	52,079.00	49,546.50
Dairy Branch.....	148,050.00	148,050.00
Fruit Branch.....	108,604.96	88,433.54
Ontario Veterinary College.....	32,284.99	35,293.34
District Representatives.....	120,000.00	120,000.00
Demonstration Farm.....	8,000.00	8,000.00
	\$1,170,643.21	\$1,339,932.30

It may be of interest to note the different increases which have been provided. Under the first item the increases are not for Civil Government but for the other subjects included under this general head, particularly for miscellaneous expenditures. The sum of \$20,000 is included here for assistance to community halls, provision for which was made by legislation described hereafter. Then an additional \$6,000 was voted for the farm survey work which the Department is carrying on this year, and which includes a resurvey of Oxford and Dundas Counties and a new survey of sections of Middlesex and parts of Peel, Wellington and Perth. There is also a vote of \$5,000 for field crop work. This makes provision for the work which has already been inaugurated in regard to the standardization of varieties of potatoes, reducing them as far as possible to two standard varieties, Irish Cobbler for early and Green Mountain for late, and improving the crop by the more general use of New Ontario grown seed in Old Ontario. It is possible that somewhat similar work will be done with reference to other crops as well as potatoes.

The grant to agricultural societies has been increased from \$75,000 to \$85,000. This is the amount directly distributed in the form of grants, and is apart from the assistance which is rendered by the Department in supplying expert judges, as well as apart from the assistance to field crop competitions. The grant of the Department represents about one-third of the expenditure for agricultural purposes by the agricultural societies. Of recent years it has dropped from a little below one-third, and consequently the Minister recommended an increase which would place the grant back to the one-third proportion and make provision to encourage the agricultural societies to extend their expenditures on agricultural work with the understanding that the Government grant would keep pace in this ratio.

There was also an additional grant of \$5,000 to the Ontario Winter Fair to provide for the deficit which the Board suffered last year on account of the unfavorable conditions prevailing at the time of the Winter Fair, especially in regard to the epidemic.

There is also a vote of \$4,000 for stallion premiums in accordance with the plan announced some time ago by the Stallion Enrolment Board. This year the sections of the Act providing for the final elimination of the grade stallion go into effect, and no change has been made in this regard. Only pure-bred sires can, therefore, be lawfully used in the Province, and the system of premiums for the very finest horses should further add to the quality of stock in this Province.

#### Poultry Extension.

In regard to the increases for work at the Ontario Agricultural College the most interesting item is a vote of \$7,000 for poultry extension work under the Professor of Poultry Husbandry. The idea is to carry on culling work and culling demonstrations among the flocks in different sections of the Province. A system is now being carried on by which the experts of the Department can, by physical examination of the bird, decide whether the egg-laying capacity of any individual is sufficient to earn her keep. While this does not purport to be as absolutely accurate as the trap-nesting system, it is much more easily and cheaply operated, and instructions can be given so that the average farmer or other poultry keeper can learn to detect the birds in the flock which should be eliminated if production is the object in view. A large number of demonstrations will be given along this line in the next few months, and attention will also be devoted to the poultry breeding stations which have developed in connection with the rural school fair work and which are having an important bearing in the development of the poultry industry throughout the Province.

Provision is also being made for the purchase of additional stock for the Animal Husbandry Department at the College. During the past few months a number of animals of different breeds have been purchased, and the Animal Husbandry Department accordingly has been greatly strengthened.

#### New Buildings at the O.A.C.

But the bulk of the increase in the expenditure at the Ontario Agricultural College is on capital account, this institution sharing in the general building program which is being undertaken by the Government now that the war is over. The plans for the extension of the College include an extension to Macdonald Hall, which is the dormitory accommodation for the girls attending the domestic science courses. For years past Macdonald Hall has been inadequate for the number who desired to be admitted to the different courses and the extension is, therefore, much needed, and will make possible extending the advantages of the institution to a larger number of students each year. Preference is given in admission to girls from the farms of Ontario.

Provision to the extent of \$15,000 is also made for an Apiary Building. At the present time there is no special building for apiculture at the College. During recent years this subject has increased in interest and importance, and is not only being taken up by the regular students but attracts large Short Course classes. It is felt, therefore, that a small building would be justified for this purpose.

There is also a vote of \$5,000 for a new piggery. One of the most interesting items in regard to capital expenditure is that of \$40,000 for a Memorial Hall. During the war seven hundred graduates and undergraduates of the College served in a military capacity, and a large number fell in action. It is proposed to erect a Hall which will commemorate their deeds and will serve as a meeting place for large general gatherings

at the College, including Sunday services. The attendance has outgrown the accommodation which at present exists for this purpose. Definite plans for the Hall have not yet been determined upon, but it goes without saying that it will be architecturally a credit to the Institution. The student body, both graduates and undergraduates, are taking a keen interest in the matter and have under way plans for raising a considerable sum which will be used in this connection in some form or other so that they will have a large share in the commendable idea of commemorating their fallen comrades.

In addition it is expected that the plans for the Men's Dormitory, which were drawn up a few years ago but deferred until the conclusion of the war, will also be proceeded with. This building is being financed out of the Federal Grant.

There will, therefore, be extensive building operations at the College during the next couple of years.

#### Community Halls.

Of the legislation the Bill attracting most interest was one introduced by the Minister providing assistance for Community Halls. This enables the Department to make grants up to 25 per cent. of the cost of halls erected under this Act, but it is provided that the grant of the Department shall not in any case exceed a total of \$2,000. It is provided that the grant shall be made to the Township Council so that halls coming under this Act must be erected under the jurisdiction of and vested in the Township Council. The Council is also empowered to appoint a Board, which shall have charge of the administration of the hall. An athletic field is also to be provided, and the Act further includes a clause by which accommodation for a hall in a consolidated or other school may be recognized as qualifying for assistance. The argument in favor of the measure was that it would assist in developing a community spirit in rural Ontario and serve the social life of rural sections. The Department will, of course, lay down general regulations by which grants will be paid for construction, but the control and management of the halls and athletic fields is entirely in the hands of the local committee appointed in accordance with the Act.

#### Cream Testing.

Another Bill introduced by the Minister provides that all cream purchased for sale, manufacture or shipment must be paid for on the basis of its butter-fat content, and sets forth the method by which the tests shall be made. All cream, or almost all cream, has for some time past been paid for on the basis of its butter-fat content, so that the Act is only confirming custom in that regard. There have been, however, a number of different methods of making the test, and frequent complaints from producers have been heard that they did not get an adequate return for the cream delivered. It is the purpose of the Act, therefore, to lay down the method of testing so that there will be no chance of confusion by different methods of testing, which has been the case in the past. It is also provided that the producer may have any specific sample reserved for retesting. The Act, before being introduced, was thoroughly discussed with all the parties concerned, and it should not only assure the producer a square deal in disposing of his cream, but make for more cordial conditions between the producer and the purchaser.

#### Branding Act.

The Province of Ontario now has a Branding Act for live stock. Legislation of this kind has existed in the Western Provinces for years, but on account of the different conditions prevailing in Ontario such legislation has not seemed necessary. There have been, however, occasional requests for provision of this nature, particularly from Manitoulin and other sections of

New Ontario. The Act in provision by brand registration Department which registers there will be of this Act, some.

A Bill to provision for institution degree of V. graduated from University of ated, granted those taking line many of B.V. Sc. or I. siderable com more or less the course a tended from graduating their degrees was an oppon at the College extended train the degree, a thing of a un which will re B.V.Sc., and of Toronto in

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A light sup demand featur during the hunder head with three tir and twice as r ing week of l tions on Am considerable as the purch was almost e activity of th past few mont of this export abrupt fall of grades of cat prices for t levels. Anoth the slow cor limited accou available on a restricted abattoirs have for the consu of beef still on are curtailing holdings are heavy steers w Most of the e hundred pou \$14.50 to \$15. made at \$15.5 hundred to ty not in good de had difficulty ings at suitabl sold from \$1 steers and he demand, and n cases 25 to 4 quotations of sales were ma numerous loa \$13.75 per hu offerings were



New Ontario where ranching is followed to some extent. The Act introduced by the Minister, therefore, makes provision by which any owner of live stock may have a brand registered with the Live-Stock Branch of the Department, and thus have the additional security which registration will give. It is not thought that there will be very many who will desire to take advantage of this Act, but it will, no doubt, prove of advantage to some.

**Change in Veterinary Degree.**

A Bill to amend the Veterinary College Act makes provision for a change in the degree granted by that institution. In the past the College has conferred the degree of V.S. (Veterinary Surgeon) on all those who graduated from the institution. In addition to this the University of Toronto, with which the College is affiliated, granted the degree of D.V. Sc. and B.V.Sc. to those taking supplementary examinations. Across the line many of the Veterinary Colleges grant degrees of B.V. Sc. or D.V. Sc., and the result is that there is considerable confusion as to the different degrees, which more or less mean the same thing. A few years ago the course at the Ontario Veterinary College was extended from three to four years, and the last class graduating from the three-year course will receive their degrees this month. It was therefore felt that it was an opportune time to make a change in the degree at the College for the double purpose of recognizing the extended training to be taken by those who will receive the degree, and at the same time bringing about something of a uniform nature. Consequently, the degree which will reward the course in the future is that of B.V.Sc., and it will be conferred direct by the University of Toronto in the same manner as the University of

Toronto now confers the degree of B.S.A. on graduates of the Ontario Agricultural College. The Veterinary College has been considerably strengthened of late and is now recognized by the American Department of Agriculture at Washington as well as by the American Veterinary Medical Association, and the Government is endeavoring to make it one of the foremost institutions of the kind on the continent.

**Restricting Sale of Seed.**

A number of interesting meetings were held by the Agricultural Committee. At one of these there was an animated discussion over a Bill introduced by A. Ferguson, of South Simcoe, providing that no seed of grain or potatoes could be sold in the Province of Ontario unless the variety which the seed claimed to represent had been tested for three years on the experimental plots at the Ontario Agricultural College or the Experimental Farm at Ottawa. This Bill found a great deal of support from rural members. It was argued that it would protect the farmer against the smooth agent who has been in the habit of going through the Province in the past selling some new fancy variety of oats, wheat or barley or some other grain at a high price. While the opinion was unanimous that some action should be taken to this end, it was felt that the Bill in the form introduced might unnecessarily restrict legitimate trade in seeds, including the business of thousands of farmers who sell seed grain each year. For this reason it was decided that the Bill should be withdrawn for this Session, but the support it received from a number of the members indicates that something along these lines may be expected at the next Session.

**Rural Education.**

Educational matters occupied considerable time and

discussion, and the new Minister of Education, Hon. Dr. Cody, in the various measures of a general nature which he introduced showed a keen sympathy with rural problems and education. Several plans were announced on this phase of the subject. Provision was made by legislation for consolidated schools. This provision is purely optional and does not pretend to coerce any districts. It enables districts, however, to consolidate their schools, where it is thought desirable, and makes provision for provincial financial assistance, both on capital account and on maintenance, in such a way as to facilitate the work of consolidating the schools. One or two districts have already intimated their desire to erect consolidated schools, and it is evident that the scheme will be tried out in this Province.

The Minister also submitted an appropriation of \$250,000 to increase the general grants to rural schools. The intention is that this shall be used entirely as a means of increasing the salaries of rural school teachers. It is proposed to increase the Provincial grant in proportion as the local board of trustees increases the salary of the teacher, and it has been found that this method is very effective in bringing about better conditions.

Following up the experimental work which has been done by the Women's Institutes, the Education Department has now taken up the matter of medical inspection. A general survey will be made of the entire Province this year with a view to working out a permanent general scheme, which it is hoped the local boards will adopt. This survey is being worked out in co-operation with the Women's Institutes.

Provision has been made permitting the election of farmers' wives to school boards.

**Toronto, Montreal, Buffalo, and Other Leading Markets**  
Week Ending April 24.

**Receipts and Market Tops**

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

	CATTLE						CALVES					
	Receipts		Top Price Good Calves (1,000 to 1,200)				Receipts		Top Price Good Calves			
	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Same Week	Week Ending	
	Apr. 24	1918	Apr. 17	Apr. 24	1918	Apr. 17	Apr. 24	1918	Apr. 17	Apr. 24	1918	Apr. 17
Toronto (Union Stock Yards)	2,514	4,859	4,106	\$15.50	\$14.50	\$15.50	2,067	2,758	2,118	\$17.00	\$16.00	\$17.00
Montreal (Pt. St. Charles)	150	733	547	13.25	13.00	15.75	2,156	2,313	3,737	13.00	12.50	14.00
Montreal (East End)	48	556	600	13.25	13.00	15.75	1,231	2,680	1,302	13.00	12.50	14.00
Winnipeg	2,913	1,784	2,987	15.00	15.00	15.00	138	63	84	16.00	16.00	15.00
Calgary	836	911	1,663	13.50	13.00	14.50						
Edmonton	237	343	496	12.40	13.00	13.00	38	78	14	12.00		11.50

	HOGS						SHEEP					
	Receipts		Top Price Selects				Receipts		Top Price Good Lambs			
	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Same Week	Week Ending	
	Apr. 24	1918	Apr. 17	Apr. 24	1918	Apr. 17	Apr. 24	1918	Apr. 17	Apr. 24	1918	Apr. 17
Toronto (Union Stock Yards)	7,908	6,984	8,336	\$22.50	\$20.25	\$21.50	247	69	466	\$21.00	\$21.50	\$22.00
Montreal (Pt. St. Charles)	974	1,094	2,018	22.25	21.00	21.25	56	15	129	15.00	17.00	16.00
Montreal (East End)	299	678	873	22.25	21.00	21.25	33	29	100	15.00	17.00	16.00
Winnipeg	5,890	3,888	5,100	21.00	19.50	20.50	12	8	2		18.00	
Calgary	1,511	1,738	1,502	21.25	19.00	19.75	114		370	13.00		13.00
Edmonton	514	305	860	21.50	19.35	25.00	11		78			13.00

**Market Comments.**

**Toronto (Union Stock Yards).**

A light supply and a rather sluggish demand featured the market for cattle during the week. Only twenty-five hundred head were offered, compared with three times as many two weeks ago and twice as many during the corresponding week of last year. The lower quotations on American markets have had considerable influence on local trading, as the purchasing by American firms was almost entirely responsible for the activity of the local market during the past few months. The temporary absence of this export outlet has resulted in an abrupt fall off in the demand for heavy grades of cattle, and, as a consequence, prices for these have reached lower levels. Another contributing factor to the slow conditions of trading is the limited account of refrigeration space available on ocean transports, causing a restricted overseas outlet. Local abattoirs have to depend on local demand for the consumption of the large stocks of beef still on hand in their freezers, and are curtailing purchases until the present holdings are moving more freely. Few heavy steers were on sale during the week. Most of the steers weighing over twelve hundred pounds sold within a range of \$14.50 to \$15.50, while an occasional sale was made at \$15.50. Steers weighing from ten hundred to twelve hundred pounds were not in good demand and commission firms had difficulty in disposing of their holdings at suitable figures. The best offered sold from \$14 to \$15. Handy-weight steers and heifers however, were in good demand, and moved freely at prices in some cases 25 to 50 cents above the closing quotations of the previous week. A few sales were made at \$14 per hundred and numerous loads were weighed up at \$13.75 per hundred, while most of the offerings were sold from \$12.75 to \$13.50.

CLASSIFICATION	No.	TORONTO (Union Stock Yards)				MONTREAL (Pt. St. Charles)			
		Avg. Price	Price Range	Top Price	No.	Avg. Price	Price Range	Top Price	
STEERS									
heavy finished	12	\$14.75	\$14.00-\$15.00	\$15.50					
good	274	14.36	14.00-14.75	15.50					
1,000-1,200 common	19	13.09	12.50-14.00	14.00					
STEERS									
good	608	13.69	13.00-14.25	14.75					
700-1,000 common	215	11.89	11.00-12.50	12.75					
HEIFERS									
good	348	13.68	13.00-14.25	14.75					
fair	132	11.75	11.25-12.25	12.25					
common	36	10.00	9.50-10.50	10.50					
COWS									
good	165	11.56	10.75-12.25	13.00					
common	382	9.16	8.50-9.50	9.75					
BULLS									
good	23	11.12	10.50-11.50	12.25					
common	54	9.64	8.50-10.00	10.75					
CANNERS & CUTTERS	67	6.50	6.00-7.00	7.00					
OXEN									
CALVES									
veal	2,058	14.00	13.00-16.00	17.00	2,156	9.00	6.00-13.00	13.00	
grass	9	7.44	6.00-9.00	9.00					
STOCKERS									
good	56	11.84	11.50-12.50	12.50					
450-800 fair	83	10.11	9.25-11.25	11.50					
FEEDERS									
good	25	13.50	13.00-13.75	13.75					
800-1,000 fair	15	12.75	12.25-13.00	13.00					
HOGS									
selects	7,448	22.00	21.50-22.50	22.50	786	22.15	22.00-22.25	22.25	
heavy	10	21.50	21.50	22.50	19				
(fed and watered) lights	254	19.82	19.50-20.50	20.50	140	2.010	20.00-20.25	20.25	
sows	193	19.48	18.50-20.50	20.50	22	19.25	19.00-19.50	19.50	
stags	3	17.00		17.50	6	17.00	17.00	17.25	
LAMBS									
good	124	19.86	18.00-21.00	21.00	28	14.50	14.00-15.00	15.00	
common	17	17.82	16.00-19.00	19.00					
SHEEP									
heavy	47	11.00	10.00-12.00	12.00					
light	36	13.36	12.00-14.00	15.00					
common	23	8.08	6.00-10.00	10.00	28			20.50	

Not enough sales of cattle were made on which to establish a market price-list. Only one hundred and fifty cattle arrived during the week, and the majority of the offerings, among which were cattle held over from the previous market, were sold in mixed lots. A considerable number were unable to find an outlet. The sales made were at prices fully fifty cents per hundred below the quotations of the previous week.



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Choice cows and bulls sold at steady prices. Really choice animals realized \$13 per hundred; medium quality realized from \$10 to \$11, and common stuff from \$8 to \$9. While a few loads of stocker cattle were shipped back to country points, demand was only fair, farmers, now preferring to buy short-keep feeders. Good feeding steers sold from \$12.50 to \$13.75, if weighing around ten hundred pounds. Stockers were quoted from \$11 to \$12.25. Two thousand calves were offered, and found a market at prices which fluctuated from day to day. Choice veal sold from \$15 to \$16.50 per hundred, and medium veal from \$12 to \$14.

Only two hundred lambs and sheep were marketed; choice yearlings were in demand at prices ranging from \$19 to \$21 per hundred, while a few spring lambs found an outlet at prices ranging from \$12 to \$15 each. Choice sheep changed hands within the range of \$13 to \$15 per hundred.

Despite the recent predictions of a break in the market for hogs, there is at the present time no indication that prices will not continue to remain steady and even to make further advances. During the week, trading in hogs was a strong feature of the market. Packing houses were keen bidders for the eight thousand hogs offered, and prices made strong advances. On Monday, selects sold at \$21.75, per hundred, fed and watered, while by Wednesday \$22.50 was being paid. The f.o.b. quotations on Wednesday was \$21.50, a price equal to \$23, fed and watered, and 50 cents above public market quotations. It is the heavy buying at country points at prices above market quotations that is largely responsible for the light receipts on the market, and the unprecedented rises in price.

Of the disposition from the Yards for the week ending April 17, Canadian packing houses purchased 1,145 calves, 2,680 butcher cattle, 9,462 hogs and 232 lambs. Local butchers purchased 873 calves, 321 butcher cattle, 298 hogs and 232 lambs. Canadian shipments were made up of 76 calves, 31 milch cows, 163 stockers and 546 feeders. Shipments to United States points consisted of 277 calves, 16 bulls and 436 butcher cattle.

The total receipts from January 1 to April 17, inclusive, were 97,580 cattle, 14,510 calves, 110,692 hogs and 26,581 sheep; compared with 73,776 cattle, 15,387 calves, 120,028 hogs, and 10,396 sheep, received during the corresponding period of 1918.

### Montreal.

Receipts of cattle were smaller than at any time within a year and had there not been a fair number on hand from the previous week, no market would have been established. At it was, trading was listless and about one hundred cattle remained unsold at the close on Thursday. Dressed beef is moving slowly and the packing houses with their storage space filled up are not purchasing fresh supplies in any quantities. The two hundred odd head of cattle that found buyers were weighed up at prices for steers fully 50 cents per hundred below the sales of the previous week, while bulls and cows sold fairly steady. No choice weights of cattle were on hand, the best offered being medium weights which sold in small lots from \$12.25 to \$13.50 per hundred. The prize twenty-five-hundred-pound four-year-old steer offered last week remained unsold. A weaker feeling developed in the market for calves

and prices on Monday declined fully \$1 per hundred, while on Wednesday the majority of the offerings sold around \$9 on a demoralized market. The offerings on the two markets totalled over three thousand head. Sales of the best lots were made from \$11 to \$13 per hundred.

No choice lambs were offered. Good stock sold up to \$15 per hundred and good sheep from \$14 to \$15. The market was strong and active.

The feature of the week's trading was the keen demand for hogs at prices fully \$1 per hundred above the closing quotations of the previous week. Purchases were reported at \$21.50 f. o. b. country points and it is the keen buying of country dealers that is responsible for the strong tone of the public market. Choice selects sold during the week from \$22 to \$22.25, fed and watered. The market closed firm, and if possible, stronger than at the opening.

**Pt. St. Charles:** Of the disposition from the Yards for the week ending April 17, Canadian packing houses and local butchers purchased 3,939 calves, 105 canners and cutters, 63 bulls, 371 butcher cattle, 2,018 hogs and 127 sheep. There were no shipments to United States points during the week.

The total receipts from January 1 to April 17, inclusive, were: 10,428 cattle, 17,977 calves, 19,312 hogs and 5,323 sheep; compared with 9,759 cattle; 13,725 calves; 19,957 hogs and 5,093 sheep, received during the corresponding period of 1918.

**EAST END:**—Of the disposition from the Yards for the week ending April 17, Canadian packing houses and local butchers purchased 1,302 calves, 600 butcher cattle, 873 hogs and 100 lambs. There were no shipments to United States points during the week.

The total receipts from January 1 to April 17, inclusive, were: 12,622 cattle, 10,104 calves, 10,595 hogs and 5,753 sheep; compared with 8,922 cattle, 12,260 calves, 11,654 hogs and 4,848 sheep, received during the corresponding period of 1918.

### Buffalo.

**Cattle.**—Prices on steers held to about a steady level last week and the trade was far more active than for the preceding week. Canadians were only in moderate receipts, there not being in excess of thirty-five cars for the week, quite a falling off, as compared with former weeks. Butchering cattle generally sold higher by a big quarter and in some cases on a nice, tidy, desirable steer and heifer kind, values looked a full half dollar higher. A bunch of Canadian yearling heifers sold up to \$15.75, this class of stuff being in especially strong demand. Offerings were liberal in hold-over cattle from the previous week and all of these were cleaned up, under light receipts of fresh cattle. Weather is favorable for stockers and feeders and good feeders are in strong demand, as well as young grazing cows, feeders being quoted up to \$12.50 to \$13, with grazing cows ranging from \$7 to \$8.50. Best native steers sold up to \$18 and \$18.50, there being no real good Canadians offered, best here landing around \$15.50 and \$16. Bulls of all kinds were higher and the trade ruled firm on milk cows and springers. Offerings for the week totaled 3,100 head, as against 5,975 for previous week and as against 5,725 head for the corresponding week a year ago. Quotations:

**Shipping Steers**—Natives—Choice to prime weighty, \$17.50 to \$18.50; fair to good, \$16 to \$16.50; plain and medium, \$13 to \$15; coarse and common, \$10.50 to \$11.

**Shipping Steers**—Canadians—Best heavy, \$16 to \$17.25; fair to good, \$13.50 to \$14.75; medium weight, \$12 to \$15; common and plain, \$10.75 to \$11.

**Butchering Steers**—Yearlings, choice to prime, \$15.50 to \$16.50; choice heavy, \$15 to \$16; best handy, \$14.50 to \$15; fair to good, \$12.50 to \$14; light and common, \$11 to \$12.50.

**Cows and Heifers**—Best heavy heifers, \$13.50 to \$14.50; good butchering heifers, \$11.50 to \$13; fair butchering heifers, \$10.50 to \$11; light common, \$8 to \$9; very fancy fat cows, \$12.50 to \$13.50; best heavy fat cows, \$9 to \$10; 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, \$11.50 to \$12.50; common to fair, \$10 to \$11; best stockers, \$11 to \$12; fair to good, \$9.25 to \$9.75; common, \$8.75 to \$9.

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

**Hogs.**—Last week started with a lower market but after Monday the trade was considerably improved, Thursday's trade being the highest in the history of the Buffalo Yards. Monday the top was \$21.10, several decks made \$21; with bulk going at \$20.90, Tuesday best hogs ranged from \$21.25 to \$21.40, Wednesday top was \$21.65 and Thursday the range on packers grades was from \$21.50 to \$21.75. Friday values were lower, top being \$21.65, with bulk going at \$21.50 and \$21.60. Lights and pigs the first half of the past week sold at \$20.25 and \$20.50 and Thursday and Friday few of these weights brought above \$20. Roughts ranged from \$18.50 to \$19 and stags \$15 down. The past week's receipts were 21,100 head, being against 23,900 head for the week before and 27,700 head for the same week a year ago.

**Sheep and Lambs.**—Prices at Buffalo showed a big margin over all other points last week. Monday best wool lambs sold at \$20.50 and the desirable clips landed mostly at \$17.25. Tuesday shorn lambs sold up to \$17.50, Wednesday best clips brought \$17.60, Thursday wool lambs made \$20.65, with clips \$17.65 and Friday top unshorn lambs ranged up to \$21, while shorn grades reached up to \$18. Good cull lambs sold from \$2 to \$3 per cwt., under the tops. Sheep were firm all week. Best shorn wethers sold at \$13.50, few up to \$14 and clipped ewes ranged from \$13 down. Receipts for the past week were 14,500 head, as compared with 15,258 head for the preceding week and 11,800 head for the same week a year ago.

**Calves.**—Receipts last week were liberal and prices were somewhat lower than the week before. Monday best veals sold at \$17, Tuesday the bulk went at \$16.75, Wednesday the majority landed at \$16.50, Thursday choice lots were hard to sell above \$16, although a few made \$16.50 and Friday the market was active and strong, majority going at \$16.50. Cull grades were quite active all week, selling from \$14 down. Offerings the past week totaled 6,350, being against 6,353 head for the week before and as against 6,450 head for the corresponding week a year ago.

### Toronto Produce.

Receipts of live stock at the Union Stock Yards, West Toronto, on Monday, April 28, numbered 160 cars, 2,596 cattle, 872 calves, 2,616 hogs, 140 sheep and lambs. Cattle strong; choice heavy steers 25 cents higher. Tops, \$15.25 per hundred. Butcher steers and heifers, 50 cents higher. Cows and bulls, 50 cents higher. Stockers, feeders, milkers and springers steady. Calves, \$1 to \$2 lower. Sheep, lambs and hogs, steady.

**Wheat**—Ontario (f.o.b. shipping points, according to freights)—No. 1 winter, per car lot, \$2.14 to \$2.20; No. 2 winter, per car lot, \$2.11 to \$2.19; No. 3 winter, per car lot, \$2.07 to \$2.15; No. 1 spring, per car lot, \$2.09 to \$2.17; No. 2 spring, per car lot, \$2.06 to \$2.14; No. 3 spring, per car lot, \$2.02 to \$2.10. Manitoba (in store, Fort William), No. 1 northern, \$2.24½; No. 2 northern, \$2.21½; No. 3 northern, \$2.17½; No. 4 wheat, \$2.11½.

**Oats**—Ontario (according to freights outside)—No. 2 white, 73c. to 75c.; No. 3, white, 71c. to 73c. Manitoba (in store, Fort William)—No. 2 C. W., 75½c.; No. 3 C. W., 72½c.; No. 1 feed, 70½c.; No. 2 feed, 67½c.

**Corn**—American, (track, Toronto, prompt shipment), No. 3 yellow, \$1.85, nominal; No. 4 yellow, \$1.82, nominal. Peas (according to freights outside)—No. 2, \$2, nominal.

**Barley** (according to freights outside)—Malt, 97c. to \$1.02.

**Buckwheat** (according to freights outside)—No. 2, \$1.10.

(Rye according to freights outside)—No. 2, \$1.60, nominal.

**Flour**—Manitoba (Toronto)—Government standard, \$1.75 to \$1.11; Ontario (prompt shipment, in jute bags), Government standard, \$9.65 to \$9.75, in bags, Montreal and Toronto.

**Millfeed.**—Car lots delivered, Montreal freights, bags included)—Bran, per ton,

## The Farmer's Financial Friend

We have large resources and the vast experience of 87 years to draw upon to serve you; but we have something even more important—we have the earnest desire to do so.

We cash your produce and personal cheques, collect your drafts—all by mail if required—and gladly give you impartial advice on any financial or business matter.

Paid-up Capital \$ 6,500,000  
Reserve Fund - 12,000,000  
Resources - 150,000,000

## THE BANK OF NOVA SCOTIA

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



\$42 to \$45; shorts, per ton, \$44 to \$45; good feed flour, \$5 per bag.

**Hay.**—(Track, Toronto)—No. 1, per ton, \$26 to \$28; mixed per ton \$20 to \$24.

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

### Hides and Wool.

Prices delivered in Toronto:

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

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

**Tallow.**—City rendered, solids, in barrels, 8c. to 9c.; country solids, in barrels, 6c. to 8c.; cakes, No. 1, 7c. to 9c.

**Wool.**—Unwashed fleece wool as to quality, fine, 40c. to 55c. Washed wool, fine, 70c. to 75c.

### Farm Produce.

**Butter.**—At last it looks as if butter prices had reached their highest point and started downward, as they declined slightly during the past week, selling as follows, wholesale: Creamery, fresh-made lb. squares at 65c. per lb.; creamery solids at 63c. per lb.; choice dairy, 55c. per lb.; other grades, down to 40c. per lb. Oleomargarine.—32c. to 34c. per lb.

**Eggs.**—New-laid eggs kept stationary on the wholesales, selling at 47c. to 48c. per dozen, with selects in cartons bringing 50c. to 52c. per dozen.

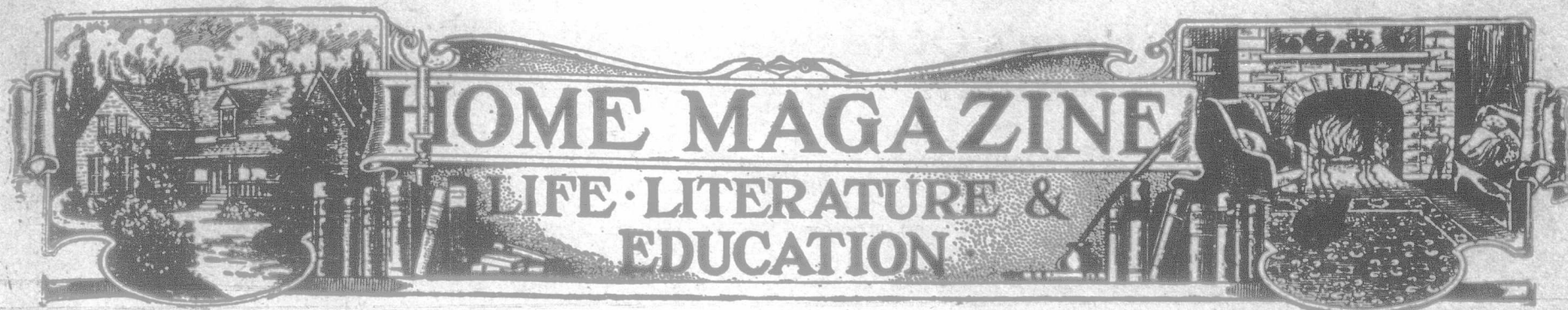
**Cheese.**—Kept firm at unchanged prices year-old Stiltons selling at 35c. per lb.; old at 31c. per lb., and new at 29½c. per lb.

**Honey.**—There is no demand for honey, which is being offered at 23c. to 25c. per lb. for 5, 10 and 60-lb. pails, respectively.

**Poultry** also kept firm at stationary prices. The following prices being quoted for live weight to the producers: Spring chickens, 35c. per lb.; chickens, crate fed, 35c. per lb.; chickens, 30c. per lb.; hens, under 4½ lbs., 30c. per lb.; hens, 4½ lbs. to 6 lbs., 33c. per lb.; hens, over

Continued on page 881.





### If I Were Pan.

Deep in the wood across the way,  
I dreamed that I was Pan to-day,  
And tuned me joyous pipes to play,  
And fronds came out to me,  
And nymphs and graces three—  
The world was Arcady!  
For I was Pan and this was Spring!

I played the part of Pan to-day  
And laughed at mortals on the way,  
But no man heard and none would stay.  
Their ears were sorely dull,  
And sad their eyes and full  
Of pelf and pride and mull,—  
And spring to them is never Spring!

I know that I was Pan a day,  
But would that I were Pan away,  
With ears like his and eyes of May,  
To hear and feel and see!—  
Pipe tunes to bird and bee  
And set the world's heart free  
With laughter, love and light of Spring!  
I would if I were Pan. — (By Ivan Swift,  
in *The Blue Crane*.)

### The International Council of Farm Women.

BY MAY CLENDENAN.

THE second meeting of the Interprovincial Council of Farm Women was held in Winnipeg, April 1 to 5. A very considerable amount of work was covered and plans outlined that presage much for the future of the farm women's organization.

This is the first time that women have sat with men in the sessions of the Canadian Council of Agriculture. They were invited to attend and take part in the discussions with a view to the Interprovincial Council becoming an integral part of the Canadian Council of Agriculture. A notice of motion was brought in that an amendment would be made to the constitution of the Canadian Council of Agriculture at its next meeting to provide for further representation on its board, thus enabling the women to have a permanent place on the Council.

The members of the Interprovincial Council met by themselves April 3, 4 and 5 to deal with problems that especially concern women. It was decided that where possible women speakers should accompany men wherever political action work was being carried on, and in order that women should become conversant with the farmer's platform, that publicity literature on it be prepared to appeal to women. Miss McCallum was named as the Interprovincial representative on the publicity committee of the Canadian Council of Agriculture.

Some of the live questions taken up by the women were immigration, revising the voters' lists, domestic help, prohibition, the new department bill of health and our relation to the National Council of Women.

Miss McCallum and Mrs. McNaughton were appointed on a committee to procure information on immigration. Investigation was made along the following lines: number of agents bringing out girls, by whom employed, under what terms, how are girls selected, and what protection and security is offered to girls, from what group are girls drawn, farm or city, skilled or unskilled, how often do parties

come, what wages asked, and are they proving satisfactory?

In the report submitted it was stated that private agencies already were at work securing domestic help under the bonusing system. Numbers of women from the British Isles had been brought out with the intention of increasing the number as soon as transportation facilities were available. Hon. J. A. Calder was wired re the information of a women's department of immigration and colonization. The reply stated that no women's department had been formed as yet, but the Government was considering the placing of several women on the staff. He also said that the bonusing system was still existent, but expected that it would soon be cancelled.

Mrs. Parlyb told of the great problem of securing domestic help in Alberta, and this had been somewhat solved in parts of the province by the work of the next-of-kin. Mrs. McNaughton spoke of the stress that shortage of labor had caused in Saskatchewan, and stated that through the work of the Women's Section they had secured a women's department in the labor bureau at Regina, and also a branch in Saskatoon. They hoped for greater alleviation in the future through the work of this body. As Manitoba had taken no definite action along the lines of domestic help there was little to report.

The necessity of having the voters' lists revised so that women should have the opportunity of using their franchise at the next federal election was emphasized. It is anticipated that steps will be taken at the present session of parliament to have women's names placed on the voters' lists, but should developments indicate otherwise, the secretary was instructed to urge action on the Government at this session.

Mrs. Brodie, as representative of the Interprovincial Council at the Prohibition Conference at Ottawa submitted her report, which contained the memorial on prohibition as submitted to the Federal Government, favoring Dominion

council by appointing the members and the secretary as conveners of committees to undertake research work along the following lines:

"Immigration"—Mrs. McNaughton, President Saskatchewan Women Grain Growers' Association, convener.

Outline of work: domestic help, mentally deficient, undesirable, U. S. and British emigration, shipping, distribution, bonusing, and the feasibility of having one channel of immigration and that through the Federal Government.

"Social Service"—Mrs. J. S. Wood, President Manitoba Women's Section Grain Growers' Association, convener.

Outline of work: prohibition, dependents, defectives, delinquents, infant mortality, rural housing conditions, mentally deficient, and mothers' pensions.

"Medical Aid"—Mrs. Parlyb, President United Farm Women of Alberta, convener.

Outline of work: municipal hospitals, public health nurses, maternity nurses, district nurses, overseas nursing association, Victorian order of nurses, municipal nurses and doctors, cottage hospitals, medical inspection of schools, public health, free clinics, child welfare, venereal diseases, and infant mortality.

"Marketing"—Mrs. Brodie, President United Farm Women of Ontario, convener.

Outline of work: causes of market fluctuations re farm by-products, co-operative market agencies, grading system re marketing of produce, investigation of packing, oleomargarine, point of contact between producer and consumer, and transportation facilities.

"Publicity Work and Laws Relating to Women"—Miss McCallum, Associate Editor of the *Grain Growers' Guide*, convener.

"Young People's Work"—Miss Mabel E. Finch, Secretary Manitoba Women's Section Grain Growers' Association, convener.

Outline of work: Boys' and Girls' Clubs, 'teen age conferences, federated

me as being an opportunity I have anticipated, as several times I have jokingly remarked that I should have to write my farmerette experience.

My duties commenced July the first. I engaged to work on a hundred and fifty-acre farm, where mixed farming is done, the owner specializing in the raising of pure-bred registered cattle and hogs. In respect of this I can assure you that I have been moving in select society this summer, and associating with individuals with a family tree that needn't be sniffed at.

My initiative job was replanting ensilage corn, which for some reasons, one of them being too much attention from the blackbirds, had come up very patchy. It was an abominably bleak day, and I emphatically decided that the farmerette's job was no cinch. However, we felt repaid for our extra work when we saw the corn cut and stowed away the other day, there being almost enough to fill the silo.

I was instructed how to use the hoe, and forthwith began to hoe, hoe, hoe. First on the list were the mangels, then vegetable garden, turnips and corn. Praises be! there were no beans. It certainly is a splendid job to cultivate perseverance, and in spite of an aching back and blistered hands the hoeing was done.

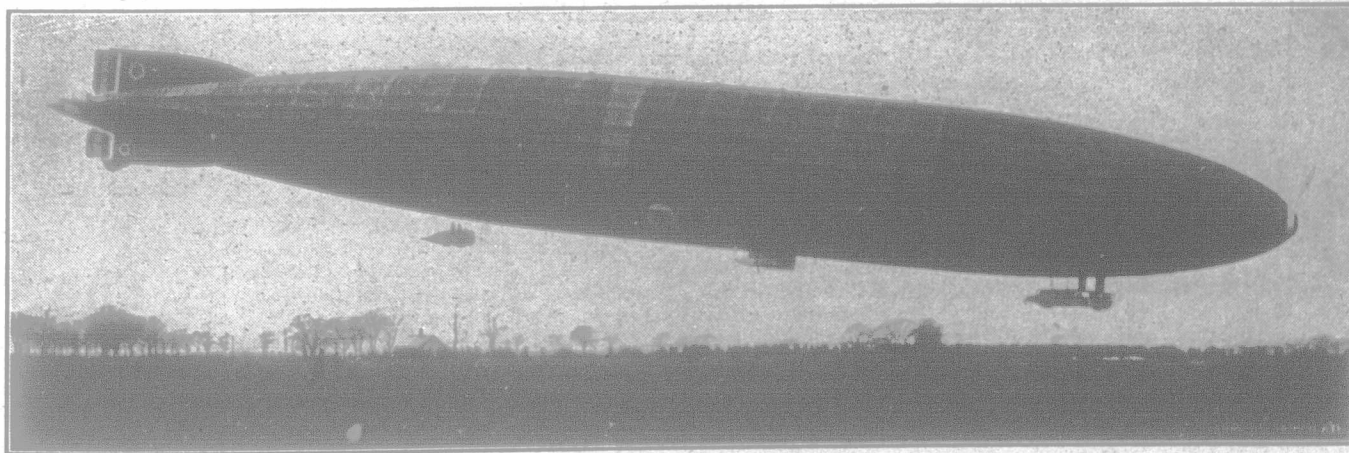
My employer co-operated with his neighbor during haying. We got along splendidly. There were fifty and some loads in the barn by the twelfth of July. I enjoyed raking up the hay, also driving the nice old horse on the hayfork.

Chores are the farmer's special nuisance in the summer-time (in winter, too, I guess), his time and strength being needed for working in the fields. Doing the chores usually took us two hours and longer, according to the distance you have to go to find the cows, and then after you get them in the barn the number of times you have to chase bossy up and down the alleys in the stable before you succeed in getting her properly tied up in her particular stall.

I felt sure that I would not like milking, but after a few trials it was easy work to milk a couple or more cows. We milked four of the cows, the other seven are nurse cows. Believe me, there is some noise until each calf finds its mother and gets settled down to business. There is one fractious old lady that puts up a fight every time; she evidently does not believe in acting foster mother. After the cattle are attended to we feed the hogs. The hired man attends to the horses and the poultry is fed and eggs hunted earlier on in the afternoon.

There were about ten days between haying and harvest. This time was devoted to odd jobs. Picking up around the yard, cutting weeds, painting the front porch and the buggy, and Paris greening the potatoes. Stars but there were hordes of bugs! I felt Hunnish slaying so many, but the fight was on and I was for saving the potato patch from disaster. We dug the potatoes the other day; they are a good crop.

The wild raspberries were ripe now and Mrs. Farmer was anxious to get some, so we went berry picking. One Monday morning we got up early, drove six miles to a berry patch, filled our two twelve-quart pails and were home again by dinner-time. Harvesting was soon the order of the day. The weather was ideal,



The World's Largest Airship.

The R 34, built at Clydeside, England. It will probably be the first airship of the Zeppelin type to cross the Atlantic Ocean. The ship is 670 feet long, and on its initial flight remained aloft four and one-half hours.

wide prohibition. The report was endorsed by the Council of Agriculture.

The new department of health bill was then read and after discussion it was decided that each province wire Mrs. Smillie, convener of the public health committee of the National Council of Women to ascertain whether it was satisfactory to them.

An interesting interview was held with Miss Davison, Western girls' work secretary, relative to the presentation of the C. G. I. T. program in the young people's grain growers clubs. The work appealed so strongly to all that each provincial secretary was requested to write the locals to ascertain how far the work was being carried on in each section and to what extent they could co-operate.

Further work was outlined by the

Sunday schools, co-operation with the Y. W. C. A., and Government institutions and extension work and the foreign born.

### A Huron County Farmerette.

[Scores of farmerettes will be at work again this summer in Canada, therefore "The Farmerette" as a subject is by no means dead. The following letter from one of last year's workers was received in the Christmas Number Competition.—Editor.]

DEAR Editor: I was delighted to read your announcement soliciting letters relating the "Experiences of a Farmerette." It appealed to



with the exception of one bad wind storm that levelled most of the stooks in three fields. I helped stook up the grain, some places the sheaves being higher than my head. It was a pretty weary farmerette that welcomed her bed those nights. I drove the horse that threw the bundles up into the mow and occasionally helped to mow away the sheaves.

Just after we finished harvest Mrs. Farmer went away for a few days, so I had a trial at housekeeping. I tried my best to get good nourishing meals, for now I know from experience that it makes one ravenously hungry to do outside work.

These were busy days before the fall fairs. The stock had to be trained to lead, washed and groomed. The kiddies and I had a good many tussels with the calves before we had them trained, but they "did themselves proud" at the fair, and won the laurels.

I finished my three months' work last week. They were busy and happy ones. I am proud of my National Service Badge, and was glad to serve the Allies' cause and my country in a small way.

Respectfully yours,

A HURON FARMERETTE.

### Knowing the Wild Flowers

*Dog's Tooth Violet (Erythronium Americanum)*, also called *Yellow Adder's Tongue*.—The accompanying picture gives but a vague idea of what this plant looks like. Neither do its various names; for it is not a violet, its root-corm alone, which is hidden, bears any resemblance to a dog's tooth, and its flower certainly does not look like an adder's tongue, although the shining purplish-blotched leaves may have suggested the skin of a snake. Mr. John Burroughs has suggested that "fawn lily" or "trout lily" would be a much better name for this beautiful flower, with its yellow lily-like flowers which close gently as night falls, showing the purplish-streaked underside of the perianth.



Yellow Dog's Tooth Violet.

*Early Saxifrage*.—When the woods are rich with early flowers, out upon the hillsides and about rocks you may find the saxifrage growing by the thousand. You may know it by its clusters of small, white flowers set upon a downy stalk which grows from a rosette of leaves at the ground. Superficially the flower looks like a baby pearly everlasting which everyone knows—a common roadside weed that flowers in August.

*Spring Beauty (Cyanotonia Virginica)*.—As well known as the marsh-marigold, though ever so much more modest in its coloring, is the little "spring beauty," that opens its pink-veined, five-petalled flowers in every rift of the woods, and along sunny edges of the woods, in early spring. It makes up in numbers, however, for its delicacy of coloring, for often whole banks will be found pink with its dainty flowers. The leaves and stems also are dainty, smooth and shining, the leaves long and narrow, the stems often reddish. The plant grows from 6 to 12 inches high, but usually appears lower because of its habit of reclining gracefully upon the ground.

## Hope's Quite Hour.

### Gladness.

Make a joyful noise unto the Lord, all ye lands. Serve the Lord with gladness. Come before His presence with singing.—Psalm C. 1, 2.

What a splendid command that is! If we all obeyed it this world would be transformed. Sometimes we behave as if we had never heard the command to serve the Lord with "gladness." We serve Him wearily, as if He were a stern tyrant instead of a loving Father. Yet the Bible is a Book of Joy, and the fruit of the Spirit is not only love and peace, it is also joy.

Our Lord tells us to consider the lilies—are we paying any attention to that command? It is because God is our loving Father that He has filled the world with beautiful and fragrant playthings to make His children happy in this kindergarten room of His house. Every dandelion by the roadside is a preacher of the love of God. Even the potatoes have their dainty blossoms, the corn is decorated with silk tassels and the orchards are like fairyland in the spring sunshine. The snowflakes are moulded into lovely crystals, the leaves are beautiful in early summer, and even in decay are painted in brilliant colors. The sunset sky is beyond the power of any earthly artist to

invitation? Are we, like the men in the parable, so occupied with worldly business that we answer our King's invitation with the churlish message: "I pray Thee have me excused," or with the daring refusal: "I cannot come."

We are invited, and commanded to be glad. Yet to make "pissime" (note the word) the business of our lives is a crime. To deliberately set ourselves, year after year, to "kill time" is to murder one of the greatest gifts of God. There is so much work to be done, and we are so powerless to accomplish it all, that it is not surprising conscientious people often think it a sin to relax their efforts except for needful food and sleep. But both bodies and minds are brighter and more able to work effectually if a reasonable amount of relaxation and pleasant amusement be taken. To work steadily on, year after year, without a holiday of any kind is most exhausting; and it often results in an enforced rest by the doctor's orders. During the war many earnest Red Cross workers drove their patient bodies and minds at a terrific speed. The nervous overstrain which will, in many cases, hinder their usefulness for years to come, is a proof of the wisdom of St. Paul's counsel: "Let your moderation be known unto all men." We have no right to deliberately overstrain our nerves—so making life a misery to ourselves and to the unfortunate people who have to put up with our crankiness.

In order to devote our very best powers of mind and body to the service of God and our fellows, we must not strain the

When our Lord said to the disciples: "Ye are the light of the world,"—St. Matt. V. 14—He meant that they should "let the sun shine through." He, the true Light of the world, must dwell in their hearts always; but the joy of His presence must shine through their looks, words and acts to brighten the people around them.

May I illustrate this with a little story I read not long ago?

"Do you smell the sweetbrier down by the gate?" she cried. "Did you ever know anything so exquisite? It's lovely always, but never so lovely as in the rain."

A young girl looked up. "It makes me think of Aunt Elizabeth," she said.

"Why Aunt Elizabeth?" someone asked. "Why, you see," she explained slowly, "there are ever so many roses that are beautifully fragrant,—the roses themselves, I mean,—but I don't know any other whose leaves are sweet. That's why it makes me think of Aunt Elizabeth, because everything she does—not the big or happy things, but all the common, every-day duties—seems to have something beautiful about it, something that she gives it from the spirit that is in her, and that goes out into everything she says or does."

Christ—fearlessly accepting the agony and shame of crucifixion—prayed that His disciples might have His unconquerable joy fulfilled in themselves. Though deserted by men He knew that the Father was with Him. Let us walk confidently into the unknown future, clasping the hand of our Great Companion. Then—when the new joy of seeing Him face to face is offered to us—we may go forward fearlessly, with the light of God in our hearts shining through our eyes. "The redeemed of the Lord shall 'come with singing unto Zion; and everlasting joy shall be upon their head.' Why? Because with them is One who 'has made the depths of the sea a way for the ransomed to pass over.'—Isa. II:10, 11.

"Joy, shipmate, joy!

(Pleased to my soul at death I cry)  
Our life is closed, our life begins,  
The long, long anchorage we leave,  
The ship is clear at last, she leaps!  
Joy, shipmate, joy!"

DORA FARNCOMB.

### Gifts for the Sick and Needy.

A number of parcels of S. S. papers (for the "shut-in") have arrived this week—from "True Blues" and many other kind people. These are being passed on as quickly as I can carry them to my sick friends.

"Country Boy" and Mrs. G. H. sent two dollars each for the needy, and D. C. placed in my care an Easter Thank-offering of five dollars. Some of this money has already been laid out, and the rest will find its mission before Easter.

A letter for "Doris" has been entrusted to me; but—as my last letter to her was returned to me—I hardly know how to address this one. If you have moved, "Doris," will you send me your new address?

DORA FARNCOMB,  
6 West Ave., Toronto.

## The Windrow.

Mr. Samuel Gompers is the Chairman of the Commission of Labor at the Peace Conference.

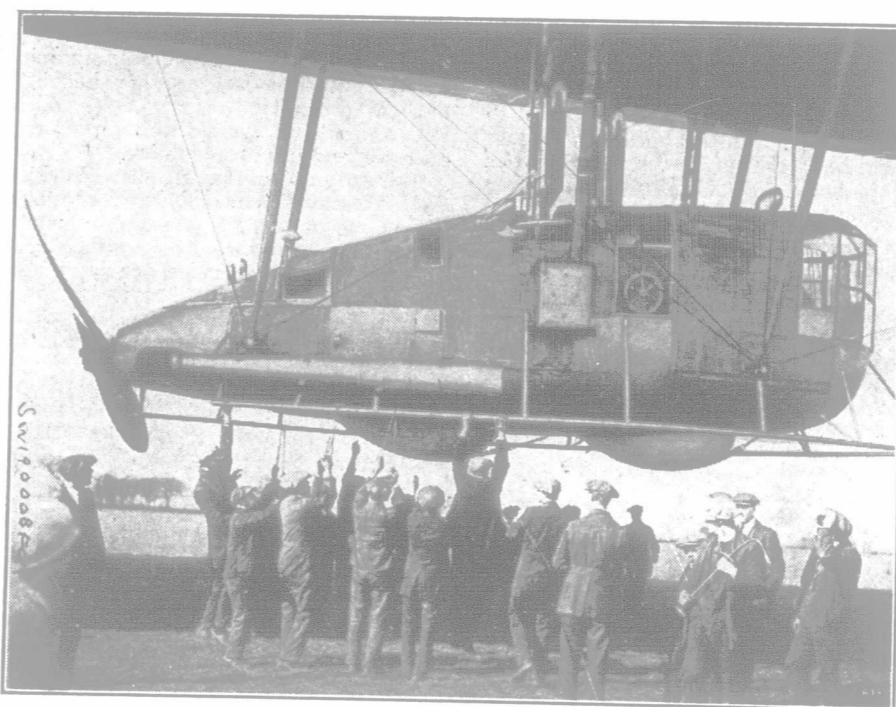
President Wilson, Premier Orlando, and Baron Chinda of Japan are the only delegates on the League of Nations Commission who are also members of the Council of Ten, which is the supervisory committee of the Conference.

Dr. Ingram, Bishop of London, is seeking to bring about a practical reunion of the Anglican and Methodist Churches.

Last fall 107,000 men and women were busy in the Krupp works. Now the vast place is a scene of desolation, empty except for the presence of a few idle watchmen.

Before the War we got most of our vegetable seed from Europe. The growing of such seed commercially is one of the businesses likely to be greatly extended in America in the immediate future.

Of the 13,500,000 men transported by the Navy and Merchant Marine during the War, only 2,700 were lost at sea through action of the enemy.



One of the Gondolas of the R 34.

This picture shows the rear gondola of the R 34. Comparison with the space occupied by the men below will give some idea of its size and the size of the whole ship.

copy, and reminds us of the golden City of which we are citizens. Birds, like visible thoughts of God, fill the air with their glad carols of praise. The changing seasons break the monotony of life and give fresh zest to existence. We should get very tired of winter if it lasted all the year round, but young Canadians enjoy enthusiastically the skating, sleighing and snow shoeing as a change after the hot summer. God has heaped His children's nursery full of pleasant things, and if we refuse to enjoy them we are guilty of the base sin of ingratitude. Even when Eve was beginning to desire the forbidden fruit she acknowledged that God had given free permission to eat of the fruit of the other trees of the garden.

Our Lord worked His first miracle at a feast, providing not a necessity but a luxury. In the story of His earthly life we find Him often seated at feasts. John the Baptist was an ascetic, but the Master we are trying to follow said of Himself: "The Son of man came eating and drinking, and they say, Behold a man gluttonous, and a winebibber, a friend of publicans and sinners." He did not refuse invitations to what we would call "parties," or act as if God's service meant nothing but steady work. The Gospel record would be seriously injured if we cut out of it the stories of the feasts at which Christ was a cheerful and therefore a welcome Guest. Our highest act of worship here is a feast—the Lord's Supper. We are invited to His table as His guests—what excuse can we offer if we have persistently refused His gracious

delicate machinery—the instrument of the soul—too far. Our Lord said to His disciples,—and the command has been recorded for our learning,—"Come ye yourselves apart into a desert place, and rest awhile." Some kinds of amusement are more exhausting than work, and some have so much evil mixed up with the amusement that Christ has to be left out. He said "Come," not "Go apart from Me." As work should be done with Him, so He should be our Companion in hours of relaxation. We should serve the Lord with gladness, and come before His presence with singing—as our text says—not only on holidays and holydays, but in our everyday work and even in suffering. It was under the very shadow of the awful Cross that our Leader said: "These things have I spoken unto you, that my joy might remain in you, and that your joy might be full."

Let us pray that God will give us this priceless fruit of the Spirit. In the front of my prayer-book is pasted the following fine prayer—Will you join me in using it?

"Grant me, O Lord, the royalty of inward happiness and the serenity which comes from living close to Thee. Daily renew in me the sense of joy, and let the Eternal Spirit of the Father dwell in my soul and body, filling every corner of my heart with light and grace, so that bearing about with me the infection of a good courage, I may be a diffuser of life, and may meet all ills and cross accidents with gallant and high-hearted happiness, giving Thee thanks always for all things."

## The L

Rules for correspondence: (1) paper only. (2) with communication the real name will be enclosed in a letter place it in stamped envelope. (4) Allow one month answers to questions.

DEAR Ing morning who live many children do," for I have about I don't know.

One place is a haps, and so who subject, now co ground, "Public

I was a little the recent meeting Council of Health paratively little fact that a Depa has been recentl with the Govern me that seems

and the only rea to why it should interest, is that did not fully gras a Department, made up of the r and initiative, pos great responsibility and the necessity interests of the pe

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employed in isolat shall never forget t me once, when perri a strong microscop tories, to see the l typhoid, like bits of of blue,—such tin thousands of time capable of causing and suffering! Tru

Of course, this w the provincial labor fined to our Instit here. But, if I und lying the Institute further. It establ that sickness sh possible, not perri Hence, a great de and "detective" wo scientific experts a tectives, and diseas and murderers to put out of business.

This, unless I am will be the work estab by the new Departm at Ottawa.

Ideally, in accor ception underlying ment, every doctor of the good health than a mere curer o taken possession of i should each doctor well folk to tell the but he should be als out the causes and diseases and stop th responsibility, to so short of the very g taking it as a sign o and decidedly discr demic should gain g it is not too much t live to see the day w will be salaried, pai



## 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.]

DEAR Ingle Nook Friends.—This morning I am like "the old woman who lived in a shoe, and had so many children she didn't know what to do," for I have so many things to talk about I don't know where to begin. One place is as good as another, perhaps, and so what about starting with a subject, now considerably in the foreground, "Public Health"?

I was a little surprised to read that at the recent meeting of the Interprovincial Council of Health in Winnipeg "comparatively little interest" was taken in the fact that a Department of Public Health has been recently formed in connection with the Government at Ottawa. To me that seems a most important step, and the only reason that occurs to me as to why it should not have created deep interest, is that perhaps the delegates did not fully grasp the significance of such a Department,—provided, of course, it is made up of the right men, men of energy and initiative, possessed by a feeling of the great responsibility that rests on them, and the necessity to "make good" in the interests of the people.

Here in London we have the first, and so far as I know, only Institute of Public Health in the Dominion of Canada, so perhaps it is easier for us than for folk living in other places, to grasp the full significance of what a public health movement may mean.

Go into the Institute at any time and you will find much of the work concerned with the chemical and bacteriological examination of blood, body secretions, etc.—an unceasing hunt for germs. For instance, if your doctor at home suspects that you may have tuberculosis but is not sure, he sends some of your sputum, properly bottled, to the Institute, where a scientist examines it and pronounces as to whether disease germs are present or not. Or the substance sent may be a bit of "white" swabbed from the throat of a suspected diphtheria case, or a few drops of blood from an anaemic case, or some water from a well suspected of typhoid contamination, and so on. It is most interesting to see the methods employed in isolating the germs, and I shall never forget the odd feeling it gave me once, when permitted to look through a strong microscope in one of the laboratories, to see the little rod-like bacilli of typhoid, like bits of red straw on a ground of blue,—such tiny things, even when thousands of times magnified, and yet capable of causing such endless trouble and suffering! Truly, little imps of evil.

Of course, this work is done also in all the provincial laboratories; it is not confined to our Institute of Public Health here. But, if I understand the idea underlying the Institute rightly, it aims to go further. It establishes as a principle that sickness should be prevented, if possible, not permitted to run wild. Hence, a great deal of its effort is police and "detective" work, with doctors and scientific experts as policemen and detectives, and disease germs the robbers and murderers to be rounded up and put out of business.

This, unless I am very much mistaken, will be the work established and extended by the new Department of Public Health at Ottawa.

Ideally, in accordance with the conception underlying all such establishment, every doctor should be a custodian of the good health of the people rather than a mere curer of disease after it has taken possession of its victims. Not only should each doctor become a lecturer to well folk to tell them how to keep well, but he should be also a detective to ferret out the causes and sources of the various diseases and stop them—if epidemic—before they can spread, feeling it a personal responsibility, to some degree, if anyone short of the very aged should fall ill, and taking it as a sign of his own negligence, and decidedly discreditable, if an epidemic should gain ground. . . . Surely it is not too much to hope that we may live to see the day when all medical men will be salaried, paid sufficiently by the

Government to do this work, and expected to do it well. As things are at present a doctor's fortune depends altogether upon the number of sick folk in his district. It should depend rather upon the number of well folk.

Perhaps the new Department of Health will take some steps towards this end, perhaps it will not; but at least it will fail in its business if it does not teach people in general the principles of healthful living, and take definite measures towards a more effective stamping out of the spread of epidemic diseases.

The founder of the Institute of Public Health here, Dr. H. W. Hill, made it very clear wherever he lectured, that "cleaning up dirty backyards,"—desirable enough from the aesthetic point of view—is not a very essential step in the warding off of disease. Germs of human disease, he said, are spread almost entirely from human to human. They are so delicate, as a rule, that they will not live very long outside of the human body, and so the chief essential is to see that they are not, while still alive, transferred from one person to another. Hence the cleanest house, if there is a "patient" in it, may be more dangerous than the dirtiest backyard. (Now don't fly away with the idea that this is putting any premium on dirty backyards!). As the germs are invisible they may cling to hands that look perfectly clean, but have not been cleansed after contact with the patient; or they may cling to dishes that look white and glistening, but have not been sterilized; they may be transferred by a kiss, or may fly through the air from the patient's mouth to someone near him as he breathes, or to a still greater distance if he coughs without properly covering his mouth. Again, in some diseases, such as typhoid, the germs are carried chiefly through the intestinal excreta, and so unless all such are properly sterilized and disposed of, there is danger of contamination of the water supply, since seepage from the surface of the ground may easily strike rifts in the subsoil or rock below that carry it directly into wells.

Against all these things will the Department of Public Health wage a fight—a fight against foes none the less deadly because they cannot be seen.

Moreover, it must exercise supervision everywhere against the continuance of such blocks to health as are adenoids, diseased tonsils, poor eyesight, bad teeth, etc. For upon good health depend comfort, high spirits, and good working-power,—three essentials, surely, in the life of every one of us.

A member of the Institute of Public Health here told me the other day that in the public schools of Minnesota a definite effort is now being made to teach the children, incidentally and every other way, some of the foundations of good health.

For instance: Since pure air is necessary to good health the children must see that their bedrooms and other living-rooms are ventilated.

Since the pores of the skin are there to throw off substances bad for the body, they must keep them, by frequent and thorough bathing, from becoming clogged, the daily bath being none too frequent.

Since bolting of food means poor digestion, the food must be chewed slowly and well; and, since bad teeth mean a bad stomach, or worse, the teeth must be carefully cleaned morning and night and after each meal, to prevent rot and pyorrhea.

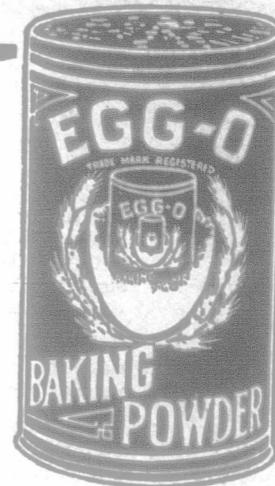
—So the story goes, including instruction about exercise, position in sitting and standing, care of the feet, quality of the food, necessity for drinking clear water between meals, and so on.

I suppose literature upon all these subjects is sent out to the teachers in Minnesota, and certainly I look forward to a time when all such instruction will be given to our teachers here, they—bless them!—have such a chance to do mighty work if they will but avail themselves of every opportunity.

So now, don't you agree with me that we should be much pleased with the creation of a Department of Public Health, and that we should expect great things of it?

By the way, perhaps you are wondering why I spoke of Dr. Hill in the past tense. . . . Simply because the United States has again secured him as one of its

## What is a double acting baking powder?



A double-acting baking powder is one that starts its action in the mixing bowl and finishes it in the oven.

Ordinary baking powders develop their full strength in the mixing bowl and you have to hurry your cakes into the oven. Then, you are always afraid that the oven is not just hot enough, or that a door will slam or something else happen to cause the cakes to fall.

You don't have to hurry or worry when Egg-O Baking Powder is used. Egg-O rises only partly in the bowl. You may let the dough stand 15 or 20 minutes or longer—doing so will give better results. When put into the oven, Egg-O continues its action—this second action being so steady and strong that a cake is not likely to fall even if it does get an unexpected jar.

# EGG-O Baking Powder

is double-acting and just what is needed to make a light baking with the heavy Government Standard flours.

Egg-O Baking Powder Co., Limited, Hamilton, Canada

24

## RED, WHITE and GREEN

Is the Color Scheme of the only Package Containing the Genuine

# Kellogg's

TOASTED

## CORN FLAKES

THE STANDARD CANADIAN FOOD

REFUSE the "Just-as-good" variety—And remember, Kellogg's Toasted Corn Flakes are only made in Canada by

The Battle Creek Toasted Corn Flake Company, Limited London Ont.

HEAD OFFICE and PLANT:

Accept no substituted imitations—No other cereal food is made or sold by us.

21

## LIGHTNING RODS

In 1917. Fifty-one per cent of all losses by fire through known causes on farm property reported to the Ontario Fire Marshall office were due to lightning.

In 1918. The losses by lightning on unrodded buildings in Ontario amounted to upwards of half a million dollars.

Lightning Rods will protect your building.

The Universal Lightning Rod Co'y.

HESPELER

Made in Canada

ONTARIO



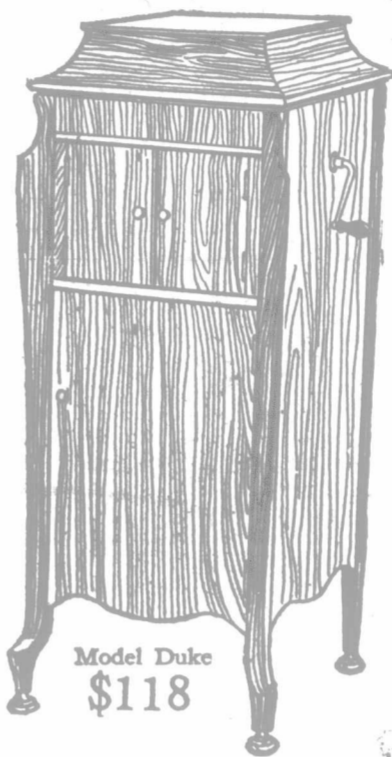
## New Inventions

We take pleasure in announcing to the public that in the future the Phonola will be equipped with a new Universal Seamless Tapered tone arm which does away with all attachments. The entire arm is beautifully designed and finished, and is a marked contrast to the cheap dye cast arms seen on other makes of Phonographs.

It is the only Universal tone arm that is scientifically designed and the only one that will play all makes of records perfectly.

The Phonola will also be equipped with a new Aluminum Reproducer fitted with a special insulated rubber connection which eliminates metallic sounds from being transmitted to the Amplifier.

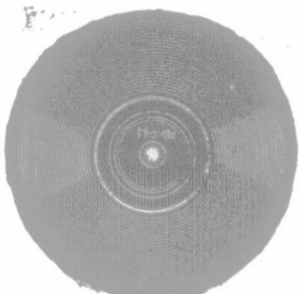
Equipped with these two new devices, the Phonola takes another step in advance of all competitors as furnishing the truest, clearest and sweetest tone it is possible to reproduce.



The price of the "Phonola" is from \$10 to \$25 less than other high-class phonographs. We make the "Phonolas" complete right here in Canada in our two factories at Kitchener and Elmira.

The model illustrated is one of our best sellers. It is a large cabinet, standing 42 3/8 inches high, 18 1/4 inches wide, 20 1/4 inches deep. Mahogany, Oak or Walnut. All metal parts heavily nickel-plated. Double spring motor.

Other "Phonola" Models from \$25 to \$340.



"Phonola" Double Disc Records 90c

### "Phonola" Records Very Popular

Every month the demand is increasing. They play with the sapphire point—no needles to change. A new list of beautiful, clear, full-toned double disc records issued each month. Bands, vocal, instrumental. Look for the "Phonola" trademark on each disc.

DEALERS—There are some localities in Canada where we require good, live representation. The "Phonola" agency is getting more valuable every day. Write for our proposition.

The Phonola Co. of Canada, Limited  
Kitchener, Canada

foremost custodians of Public Health.—Why do we let so many of our most helpful men slip away from our country?  
JUNIA.

#### Needle Points of Thought.

"The world wants to get back quickly to work, and it wants to get to work under better conditions than it had before the war."—Premier Lloyd-George.

"It is startling to think that (because of airplane development) no place in this old world will be more than four days from Toronto."—Dr. Braithwaite, of Western University, London.

#### Wall-paper and Paint.

Dear Junia.—I come again for help. The woodwork in my house is painted. I have always had carpets on the floors. They are worn in places, and I would like to get rugs. Should the floors be painted the same color as the woodwork or darker, and how near the walls should a rug be in a small room? The hall is narrow; is it best to get a carpet to match the stair carpet, or should the floor be painted; both rooms open off the hall. They are small rooms, and I keep the doors open. My walls are plain "oatmeal." Should the rugs be plain or figured? Thanking you in advance.

Kent Co., Ont.

G. S.

The rug may come anywhere from one to three or four feet, or even more, from the wall; it is quite immaterial. Should advise you to paint the floor any of the wood browns. A light brown, almost ochre, is good in some rooms, dark oak or walnut in others. It all depends upon the color in rugs and wall-paper. Just one warning,—be sure you don't get a reddish brown, as it harmonizes with nothing. If I were you I should paint the floor in the hall the same as the other floors and get a runner for it. The runner and stair carpet may be the same and should harmonize in color with the carpets.

Yes sir!  
I said  
**Snowflake**  
because I want  
**FULL STRENGTH**  
**Ammonia**

### Let Us Know Your Brick Requirements Now

Once the building season really opens up it is hard to meet the demand for a quality product like—

## MILTON BRICK

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

MILTON PRESSED BRICK CO., LIMITED  
Head Office: Milton, Ont. Toronto Office: 48 Adelaide St. W.

in the other rooms. . . . The plain "oatmeal" paper makes a splendid background. With it your rugs may be figured, or plain with a figured border. The rule for good decoration is: "Never have both walls and rugs figured. One of the two must be plain."

By the way, favorite colors for plain papers are tobacco brown, amber, honey, dull buff, chamois, butter color, soft olive green, warm stone gray. Use the brighter of the yellowish shades for dark or dull rooms. The gray is nice for a very bright room, provided prettily colored chintz is used for inside curtains, upholstery, etc. The rug with these chintz touches, may be plain with a flowered border to match the chintz.

In bedrooms one may indulge one's taste for dainty flowered papers, although a plain paper in dainty coloring looks well if brightened by a flowered border and curtains.

#### Soot Stain.

Kindly sent by Mrs. John B. Jack, Renfrew Co., Ont., for the reader who requested information.

Moisten stain with lemon juice, place out of doors in the sun, and the stain will disappear. A tried method.

#### Growing Celery.

PUT the celery drill near the pump or some other water supply, as a great deal of the success in growing this delicious vegetable comes from keeping the soil constantly moist from them they are sown until ready for the table.

A peaty rich soil is best, but very good celery can be grown on clayey and even sandy soil, provided it is properly fertilized.

The seed may be sown now at any time in boxes or the hot-bed. When the seedlings are well established thin out to allow sturdy development. When about four leaves have developed transplant to the trenches, placing them 6 inches apart.

The trenches are prepared by placing a layer of well-rotted manure in the bottom and covering it with a couple of inches of rich soil. While the plants are very small keep the sun off them during the brightest part of the day by putting up boards, and when the plants have attained a height of 7 or 8 inches place a mulch of weeds, grass, straw, etc., each side of the plants and wet it down frequently.

In fall use boards to blanch the celery, supporting them with stakes. After the top leaves have grown an inch or two above the boards the blanching may be hastened by moving the boards closer together. Blanching may also be brought about by banking in with earth, but this is more trouble. The self-blanching varieties require very little assistance, and during a cool, wet fall, none whatever.

#### Getting Ready for the Garden.

##### The Site.

A vegetable garden should have at least 5 hours of sunlight every day. Also, it should be well drained; soil that is not well drained becomes soggy and sour.

##### The Soil.

The secret of every poor garden is a poor soil. To have good soil, it must be sweet because of good drainage, rich with fertilizer, and moist with humus. Well-rotted barnyard manure supplies both fertilizer and humus; leaf or woods' loam is also good. A bushel or two of lime scattered over the garden once in 3 or 4 years will help to correct acidity. Hardwood ashes may be applied both when the seed-bed is being prepared and while plants are growing, but do not use too much. As poultry droppings also are too rich do not apply except when mixed with several times the bulk of earth, then use as top-dressing after growth is well under way.

#### Seasonable Cookery.

Vinegar Pie.—Take 1 cup sugar, and 2 tablespoons flour. Mix well together, then add 1 cup water and vinegar to taste, and, last of all 2 beaten eggs. Bake in under crust only.

Salmon Mousse.—Mix a large can of salmon with 1 cup white sauce, then the stiff whites of 3 eggs. Season well, put into a mould and steam 3/4 hour. Turn

on to a hot potato balls chopped par made by mix then warm m

Plain Broo of beef or 3 onion, 2 cups 1/4 teaspoon p herbs, 2 tabl burnt sugar c Cut the meat in a little fat cent for the rapidly, then it will just sim an hour before and seasoning serving, stir little water, c the gravy with Finally serve with potato boiled rice, c round. If p used, dot wi pepper or pa parsley if y making stew in the fat, an cook, before way is quite variety in th or turnip, or boiled beans ferent stew in canned or If one want must be omi

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**Cookery.**

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Mix a large can of  
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on to a hot platter and surround with  
potato balls garnished with butter and  
chopped parsley. The white sauce is  
made by mixing flour and butter together,  
then warm milk, and cooking until thick.

**Plain Brown Stew.**—Take 2 lbs. neck  
of beef or 3 lbs. with bone; 1 cup cut  
onion, 2 cups cut potato, 2 teaspoons salt,  
1/2 teaspoon pepper, 1/2 teaspoon savory  
herbs, 2 tablespoons flour, 1 tablespoon  
burnt sugar caramel or rich beef extract.  
Cut the meat in bits and fry until brown  
in a little fat or butter, add water suffi-  
cient for the dish and let come to a boil  
rapidly, then draw back at once so that  
it will just simmer for 2 or 3 hours. About  
an hour before serving add the vegetables  
and seasoning. Five or 10 minutes before  
serving, stir in the flour mixed with a  
little water, draw the pot forward so that  
the gravy will boil up to cook the flour.  
Finally serve piled up on a hot platter  
with potato balls, or a border of hot-  
boiled rice, or split buttered biscuits all  
round. If potato balls or rice border is  
used, dot with butter and sprinkle with  
pepper or paprika, and a little chopped  
parsley if you have it. . . . In  
making stew some brown the onions also  
in the fat, and stir in the flour, letting it  
cook, before adding any water. This  
way is quite as good. . . . To make  
variety in the stew, add pieces of carrot,  
or turnip, or both. Or you may add par-  
boiled beans with the meat. A still dif-  
ferent stew will be obtained by putting  
in canned or ripe tomato, or mushrooms.  
If one wants a white sauce the caramel  
must be omitted.

The secret of a good stew is slow cook-  
ing; the French, who are much more  
partial to savory stews—ragouts as they  
call them, than we are, are very particular  
about this.

Stews are very useful in the busy spring  
and summer, as they require very little  
attention, and form the easiest kind of  
dinner to get ready, as no extra potatoes  
or vegetables will be needed, other than a  
green salad, if liked. Also, they will  
cook splendidly in the fireless cooker. It  
should be remembered that a "sloppy"  
pudding should never be served at a stew  
dinner. Better have pie or bread or  
biscuit with fruit. Contrast is necessary  
to appeal to the palate.

**The Scrap Bag.**

**Tuesday for Wash Day.**

Why wash on Monday? Everything is  
eaten up, the house is in turmoil after  
Sunday. Then why not devote Monday  
to getting things in order again and wash  
on Tuesday instead? If you boil or roast  
some meat on Monday to have cold for  
Tuesday's dinner, and bake a pie or two,  
for dessert, all the better. Try it, and  
see if you want to go back to Monday  
for wash-day again.

**House-Cleaning Season Unnecessary.**

Unless papering and painting must be  
done, a house-cleaning season is unneces-  
sary, now that tacked-down carpets are  
no longer in vogue. It is much better to  
clean a room at a time, whenever needed,  
and so keep the house always so clean  
that an annual back-aching tear-up of the  
whole can be avoided.

**The Care of Shoes.**

Nothing shows the lack of care sooner  
than shoes, and when they are carelessly  
treated they retaliate by looking their  
ugliest. Our footwear should always be  
treated with every consideration, and the  
difference between "treed" and "untreed"  
shoes cannot be too much emphasized.  
This applies not only when the shoes are  
in constant use but when putting them  
away. The winter shoes should be  
brushed and wiped clean. Calfskin and  
other heavy leathers should be rubbed  
with mutton tallow. After the grease  
has soaked in they should be wiped off  
with a piece of flannel. Kid shoes should  
be rubbed with cream and shiny leathers  
preserved with oil. Each shoe should be  
"treed" or stuffed with newspaper, then  
wrapped separately in tissue paper and  
boxed. The original shape of the light  
slippers can be maintained by stuffing  
them with cotton or tissue paper before  
they are wrapped up in tissue paper and  
packed away in their own boxes.—Sel.

**The Ideal Attic.**

Once I saw an ideal attic. It had a  
nice, close floor and finished walls. At  
each end there was a large window which

could be left open whenever one wanted.  
All winter the clothes were hung there,  
after being laundered, the windows then  
being left open to dry the clothes, unless  
it was stormy. In summer the attic  
contained the winter's clothes, hung on  
hangers, for the most part, the hangers  
being suspended from a long pole. At  
this time the windows were completely  
covered with wire netting, fine enough  
to keep out intrusive bats and "millers."  
At one end of the attic was a cedar box  
for furs; at the other another one—a large  
chest—blankets, etc. A broad, low shelf  
afforded a place for hat-boxes, and be-  
neath it was another for other articles not  
needed temporarily. In short, the attic  
was a place for all the things that must  
be got out of the way during part of the  
year, but everything was in order. There  
was a place for everything and everything  
was in its place.—J.

**How to Bring the Birds.**

Birds are very necessary in the garden  
and orchard because of their good work  
in eating insects and weed-seeds. But  
who would not have them also for the  
delight of seeing them and hearing them  
sing. Mabel Osgood Wright says if you  
want goldfinches plant sunflowers, zinnias,  
coreopsis, and lettuce. The American  
goldfinch, by the way, is the little yellow  
"thistle-bird," usually, but erroneously,  
called "canary." It has a beautiful song  
besides its cry of "Ba-bee, ba-bee!"  
Kirkland found 2,110 of the insects known  
as birch aphids in the stomach of one  
goldfinch. These birds are also great  
seed eaters, being especially fond of thistle  
and mullein seeds.

**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 XXI.

**A Disturbing Appearance.**

November 19th, 1837.

THIS morning the day broke bright  
and clear, with a sharp nip in the  
air, and frost glittering on the snow.

At breakfast Nora and Kate proposed  
a ride, to which I readily assented. Since  
coming here I have had very little riding,  
not only because of the necessity for  
staying rather closely in the apothecary  
shop, but because of the state of the roads,  
which, except early in the morning, when  
hard frozen, have been sloughs of slush  
and mud, even in the streets of the town  
itself, so that one can well understand  
the name that has become affixed to the  
place, "Muddy York."

Needless to say the traffic has been  
greatly interfered with. It has been  
impossible for the farmers to drive in  
from any distance at all, while even  
stages on the main roads have met  
with divers accidents and have been  
arriving at all sorts of unseasonable  
times, so that almost at any hour of  
the night or day, at the Coffin Block,  
where they stop, one may see them draw-  
ing up, covered with mud, which has  
besplashed the commodities hanging out-  
side so that they look like barnacles  
on a ship,—horses weary and steaming  
and mud besplashed also, while a few  
weary travellers alight and make haste to  
secure a good meal and a place to rest.

The past few days, however, have  
been much better, the snow having  
fallen to a considerable depth, so that  
the sleighs have been coming in and  
the streets and market begin again to  
look alive.

"The roads must be good now,"  
said Nora, and then there was some dis-  
cussion as to whether we should go out  
along the Indian road up the Humber past  
the King's Mills, calling at the garrison,  
on the way, for Pinky, or whether we  
should go up Yonge Street or out the  
Kingston Road, in either of which case  
I must first go out for Pinky, which I  
could do finely while the girls made  
themselves ready.

Perhaps because of my influence  
the decision was made in favor of Yonge  
Street, which I have not yet seen for any  
considerable distance past the city,  
and about which I have been curious  
through having heard so much at home  
of the doings "out Yonge Street," and



Neat and attractive Orford with wing tip and military heel.

**What the Dealer Means to You**

THE shoe dealer does more for you than you  
perhaps realize. He not only carries a variety  
of styles and sizes for your convenience, right in  
your town, but he renders you a service which no one  
else can render in the correct fitting of your foot.

This is very important, not only for the sake of comfort, but also  
because the appearance and the life of your shoes depend upon  
correctness of fit. No matter what price you may pay for a shoe,  
it cannot give you its full-service if it does not fit your foot.

And more than that: ill-fitting shoes often cause foot troubles,  
even though they may feel perfectly comfortable at first. Correct  
fitting shoes are essential, even if it means extra time and effort  
for you to get them.

So you should go to a dealer in whom you have confidence, let  
him advise you as to the type of shoe which is suited to your foot,  
and give him time to fit you correctly. You will get better service  
from your shoes if you will do this, and they will look better.

Write for our booklet "How to Buy Shoes" which gives more  
information on this important subject. It is sent gladly to any  
address in Canada upon request to our head office at Montreal.

**AMES HOLDEN McCREADY LIMITED**  
"Shoemakers to the Nation"

ST. JOHN MONTREAL TORONTO WINNIPEG  
EDMONTON VANCOUVER



When you buy Shoes look for—

—this Trade-mark on every sole

46-B

**"Goes Like Sixty"**

**This Engine Will Cost You Nothing**

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

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

**Gilson Mfg. Co. Ltd., 259 York St., Guelph, Ont.**

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# SARNIA FENCE

## Lower Prices on Fencing

**T**O make sure that you get your fencing when you want it this Spring, we advise, yes, urge you to place your order now or at the earliest possible date. We can make prompt shipments now. We are reasonably certain that the demand this Spring will far exceed our capacity, in fact, the capacity of any factory in Canada. Don't be one of those belated farmers who places his order at the eleventh hour when the rush season is on, because no human agency can overcome possible transportation delays, shipping congestion and other interruptions that follow the breaking up of Spring day when the fence building season is on. It is to your advantage to have your fencing in hand for use the first available "fence gauge wire, prompt shipments, best quality, lowest prices, only two profits—yours and ours—a direct shipment from the factory on our prepaid freight plan, fencing fresh from the loom, new and bright, no better fencing made anywhere. Ask the man who uses Sarnia Fence. He knows.

### Buy Now and Save Time and Money on Your Spring Requirements Take Advantage of Our Low Prices and Prompt Delivery

**NOTICE**—These prices include freight prepaid to your nearest station in Old Ontario in lots of 200 lbs. or over. We do not pay freight on Electric or Steamboat Lines. Write us for special prices on carlots, as a considerable saving in price can be effected as compared with L.C.L. shipments. Fence put up in 20, 30, and 40 rod rolls.

HEAVY WEIGHT STYLES Made throughout of Full Government Gauge No. 9 Hard Steel Wire.	Price per rod delivered in Old Ontario	8, 9. Weight per hundred rods, 1,200 lbs.	Price per rod delivered in Old Ontario
4-33-0—Ranch Fence. 4 line wires, 33 in. high, 9 stays per rod, spacing 10, 11, 12. Weight per hundred rods, 550 lbs.	31c	10-50—Horse, Cattle, Sheep and Hog Fence. 10 line wires, 50 in. high, 12 stays per rod, spacing 3, 3 1/4, 3 1/2, 4 1/4, 5 1/2, 6, 8, 8, 8. Weight per hundred rods, 1,325 lbs.	76c
5-40-0—Horse and Cattle Fence. 5 line wires, 40 in. high, 9 stays per rod, spacing 10, 10, 10, 10. Weight per hundred rods, 650 lbs.	37c	MEDIUM WEIGHT STYLES The following styles are made of No. 9 top and bottom wires, and No. 12 intermediate and stay wires of full Government gauge, and galvanized to stand an acid test:	Price per rod delivered in Old Ontario
6-40-0—Horse and Cattle Fence. 6 line wires, 40 in. high, 9 stays per rod, spacing 7, 7, 8, 9, 9. Weight per hundred rods, 750 lbs.	43c	6-40-16—Cheap Pasture Fence. 6 line wires 40 in. high, 16 stays per rod, spacing 7, 7, 8, 9, 9. Weight per hundred rods, 570 lbs.	35c
7-40-0—Horse and Cattle Fence. 7 line wires, 40 in. high, 9 stays per rod, spacing 5, 6, 6, 7, 7 1/2, 8 1/2. Weight per 100 rods, 860 lbs.	49c	7-26-16—Hog Fence. 7 line wires, 26 in. high, 16 stays per rod, spacing 3, 3 1/4, 3 1/2, 4 1/4, 5 1/2, 6. Weight per hundred rods, 580 lbs.	36c
7-48-0—Horse and Cattle Fence. 7 line wires, 48 in. high, 9 stays per rod, spacing 5, 6, 7, 9, 10, 11. Weight per hundred rods, 900 lbs.	51c	7-42-16—Sheep and General Purpose Pasture Fence. 7 line wires, 42 in. high, 16 stays per rod, spacing 6, 7, 7, 8, 8. Weight per hundred rods, 640 lbs.	40c
8-40—Sheep and Hog Fence. 8 line wires, 40 in. high, 12 stays per rod, spacing 3, 3 1/4, 4 1/4, 5 1/2, 7, 8, 8. Weight per 100 rods, 1,050 lbs.	60c	8-34-16—Hog and Sheep Fence. 8 line wires 34 in. high, 16 stays per rod, spacing 3, 3 1/4, 3 1/2, 4 1/4, 5 1/2, 6, 8. Weight per 100 rods, 670 lbs.	42c
8-48—General Stock Fence. 8 line wires, 48 in. high, 12 stays per rod, spacing 4, 5, 6, 7, 8, 9, 9. Weight per hundred rods, 1,100 lbs.	63c	9-42-16—A General Purpose Fence at a Low Price. 9 line wires, 42 in. high, 16 stays per rod, spacing 3, 3 1/4, 3 1/2, 4 1/4, 5 1/2, 6, 8, 8. Weight per hundred rods, 750 lbs.	47c
9-48-0—General Stock Fence. 9 line wires, 48 in. high, 9 stays per rod, spacing 3, 4, 5, 5, 6, 8, 8, 9. Weight per hundred rods, 1,100 lbs.	63c	14-48-16—Special Garden Fence. 14 line wires, 48 in. high, 16 stays per rod, spacing 3, 3, 3, 3, 3, 3, 3 1/2, 4, 4 1/2, 4 1/2, 5, 5 1/2. Weight per hundred rods, 1,060 lbs.	66c
9-48-OS—Special Horse and Cattle Fence. 9 line wires, 48 in. high, 9 stays per rod, spacing 6, 6, 6, 6, 6, 6, 6. Weight per hundred rods, 1,100 lbs.	63c	POULTRY FENCES 18-50-P—Stock and Poultry Fence. 18 line wires, 50 in. high, 24 stays per rod, top and bottom wire No. 9, filling No. 13 hard steel wire, spacing 1 3/8, 1 3/8, 1 3/8, 1 3/8, 2, 2 1/4, 2 1/2, 3, 3 1/2, 4, 4 1/2, 4 1/2, 5, 5, 5. Weight per hundred rods, 1,225 lbs.	80c
9-48—General Stock Fence. 9 line wires, 48 in. high, 12 stays per rod, spacing 3, 4, 5, 5, 6, 8,		20-60-P—Stock and Poultry Fence. 20 line wires, 60 in. high, 24 stays per rod, top and bottom wires, No. 9 filling No. 13 hard steel wire, spacing 1 3/8, 1 3/8, 1 3/8, 1 3/8, 1 3/8, 2, 2 1/4, 2 1/2, 3, 3 1/2, 4, 4 1/2, 4 1/2, 5, 5, 5. Weight per hundred rods, 1,325 lbs.	88c

More than eight million rods of "Sarnia Fence" are in use on "Canadian Farms." The purchase of this Eight Million rods of Fencing has saved the farmers of this country more than \$500,000,000. "The Sarnia Fence Company's" "Direct from Factory to Farm" policy is directly responsible for effecting this hand-some saving.

Do you wish to share in the benefits that so many others have derived from this "Direct Buying Policy?" We solicit your business entirely on the basis of co-operation.

**If You Use Wire Fence Read This:** The wire used in the manufacture of Sarnia Fence is made in the United States by the largest makers of wire in the world. Their product is recognized as the standard of the world. The Canadian Government stipulates the size of wire which will be allowed to enter Canada free of duty. No. 9 shall be over .140 and not exceeding .148 of an inch in diameter, consequently it is impossible for manufacturers buying their wire in the U. S. A. to use under-sized light wire, but must import full Government Gauge Wire.

**If you are placing an order be sure you are getting a full gauge fence such as SARNIA FENCE and not a light weight.**

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. Get our descriptive literature and let us tell you exactly what kind of fence you want will cost laid down at your home town. This is your fence factory. We are the farmer's friend. Thousands of Canadian farmers are regular patrons of ours. Your turn next. Various kinds of field, farm and pasture fence, lighter weights for garden and orchard purposes, special poultry fence, lawn fence and gates in variety and styles to suit the requirements of our farmer friends in Canada. Made in Canada for Canadian farmers, sold direct on our "save-you-money" plan. Heed our advice. Order now. Have your fencing on hand when you need it, and at our exceedingly low prices quoted above. Write to-day.

**OUR POLICY** To sell the Farmers of Canada the BEST FENCE it is possible to make at the LOWEST possible Price. Send your orders to our Factory. Address us



**SARNIA FENCE CO. - Sarnia, Ontario**

about Hogg's Hollow and the Holland Landing and other points. Accordingly I fetched Pinky, finding him at the garrison, although the place seemed deserted even more than usual, and soon we were all away to the North, Nora and I galloping ahead, while Kate and Pinky loitered behind.

As one leaves King Street, following Yonge Street, the town becomes more and more scattered, often with considerable land between the buildings, until at last the building lots lose themselves in ravines and woodlands and farms. The chief landmarks along this way seem to be taverns, for besides the "Sun" and the "Red Lion" which I have before mentioned, there are also the "Gardiner's Arms," with its trough and pumps, the "Green Bush," whose sign is a painted pine tree, and "Montgomery's."

Past all these we clattered at good speed, the road being quite smooth and hard from the traffic of the sleighs, and I was pleased to note the splendid horsemanship of my cousins, who sit their saddles as well as men, and who look particularly well in their long floating habits and neat riding-hats.

Nora's cheeks glowed red as roses, and not a thing along the way missed her. She knew who lived here and who there, and even when we reached the woods-covered hills could tell, although the leaves were off, which trees were elm, or butternut, or beech, or basswood, or maple. In these woods, she told me, grow many wild fruits, including wild currants and gooseberries as well as raspberries, while, along the Don flats there is sport to be had in summer with shooting grouse, quail, snipe and wild ducks. Should one desire a change, she said, one could fish from the river banks, or go spearing salmon at night from boats with "jacks" or pine-knot torches at their bows. Upon the whole, she thinks, I should plan to stay here all of next year, but I have the idea that when spring comes the drawing of the old home will be too great.

And now I come to the part of my narrative which tells of something that has much disturbed me this day, for I have written thus far without any great pleasure in it.

Upon our way back it was proposed that we come in by the College Avenue, and so we made a detour, coming presently to the Tecumseh Wigwam which stands at the corner of the Concession Line and the Avenue. It is but a low, one-story log cabin, but is supposed to be very exclusive, being frequented only by "young bucks" as Uncle Joe calls them, who gather there to drink and roister. Even on Sunday the place is resorted to, which causes much criticism among some of the Methodists,—not at all, however, to the discomfiture of the "young bucks."

The road being good, we were riding past the place at a gallop, when I saw two young men entering the door.

One of them, I could have sworn, was Selwyn, and with a sudden impulse I checked my horse back until I threw him almost on his haunches.

At the moment I would have thrown myself off and followed the men in, then it occurred to me that I must have better excuse than I possessed for going into the place, or for accosting Selwyn even though it chanced to be he.

I do not know why it is that the presence of this man always makes me feel vaguely uneasy, or why I always connect Barry with him. I feel that he was honest that that night in the forest, and yet—

Well some day soon, perhaps, I shall meet him—if, indeed, it were he—and have opportunity of speaking with him.

Heigho!—I must stop. Kate has come to ask me to go down, because Anne and Pinky are there.

I know how the evening will be spent. Percival will twirl his moustache and look things unutterable at Kate. . . . Anne will be very uninteresting but will look most sweet and pretty in a blue gown with a very wide skirt and sleeves puffed to the elbow. She has great soulful brown eyes and pretty reddish hair which she parts in the middle and draws into a cluster of little puffs behind. Sometimes in the evening, she wears a thin gold chain about it, with a jewel that hangs in the middle of her forehead. Her waist is very small and so are her feet. . . . Nora will be the rollicking one,

and by an invitation will come chaffing at him for the evening invite me to the regiment.

By the invitations and gold—be held at a Monday

I wonder Kate are p—the poll—and what they even friends in f—become as event with and quad polite soc suggestivel

For all th—Also thi—over a gre—and Uncle—ing of Dece—But n—will think—Au revol

I t is tw—but I taken in it all t—day I can from tossi—imaginings mad.

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Adventure far from the

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ll and so are her  
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and by and by a troop of her admirers  
will come in, and there will be much  
chaffing and laughing, and no doubt be-  
fore the evening is over one of them will  
invite me to join the "home guard"  
regiment.

By the way we have all received  
invitations—very elegant things in white  
and gold—for a masque ball that is to  
be held at a fashionable dancing hall on the  
Monday night, November the 27th.

I wonder how I shall acquit myself.  
At every spare moment Nora and  
Kate are putting me through the dances,  
—the polkas and schottisches, gallops  
and what not—as well as they can, and  
they even intend to ask enough of their  
friends in from time to time so that I may  
become as familiar as may be before the  
event with the lancers, and cotillions,  
and quadrilles as they are danced "in  
polite society" as Kate says, rather  
suggestively.

For all this kindness I am very grateful.  
Also this household is quite excited  
over a great dinner that Aunt Octavia  
and Uncle Joe intend giving on the even-  
ing of December the 4th.

—But now I must go down. Kate  
will think I am disrespectful.  
Au revoir, Journal.

#### CHAPTER XXII.

##### A Revelation.

November 21st, 1837.

IT is two o'clock of the morning,  
but I cannot sleep, and so I have  
taken my Journal to see if by writing  
in it all the events of this disturbing  
day I can by any means secure respite  
from tossing about on my bed with  
imaginings that have almost driven me  
mad.

This morning Clinkenbocker asked  
me if I would care to go with him in the  
afternoon to a pigeon match out Yonge  
Street, to which I gave ready assent  
provided Nora would substitute for me in  
the apothecary shop, which she can well  
do if she chooses. I wished to go, not  
because I care anything for trap-shooting,  
which has always seemed to me a cruel  
sport, but because, since the invitation  
came from Clinkenbocker and I well  
knew the purport of any such pigeon  
match as he might take me to, there was  
promise of some sort of adventure.

Adventure enough I had, truly, but  
far from the sort I had expected.

Riding out as soon as we could get away,  
we found the affair already in course,  
in the barnyard of a farm, where were  
gathered a number of men in the rough  
homespun clothes which I know so well.  
Bearded fellows the most of them were,  
and bronzed from constant exposure  
to the sun of summer and the blasts  
of winter; and as they stood about or  
sat in various attitudes on the piles  
of boards and logs, forming a sort of  
semi-circle beyond which were the traps,  
a constant fire of chaffing and laughter  
ran round among them, so that one  
might have thought they had not a care  
in the world. On the very outskirts  
of the crowd were a few Indians, who  
kept by themselves.

For a time I watched the shooting,  
pitying the pigeons as they flew up and  
circled about, their pretty white and  
iridescent bodies fluttering about against  
the gray sky like bits of down-fallen  
cloud, only to be hurled at the next  
moment on the ground, bleeding and  
limp, all their beauty and love of life  
destroyed. Nevertheless there was some  
good marksmanship, and in spite of  
my sympathies I found myself interested  
in the "shots," and in the keen-eyed men  
who winged the little leaden missiles so  
accurately.

By and by came Clinkenbocker's turn,  
and it amused me much to see how  
nimble the big fellow could be, and how  
he drew bead on the poor flying birds  
with unerring aim, even after he had  
let them escape so far that they were  
in excellent chance of safety.

My chance was to have been next  
but an utterly unforeseen thing happened.

While looking about at the men,  
wondering who was this one and that,  
and whether there would be conversation  
afterwards, and how much I should  
hear—for The Schoolmaster had de-  
parted, preoccupied and silent, as though  
he had learned too much of import  
to care to talk with a lad such as I—I

noticed one of the Indians, who were  
sitting on a waggon, detach himself  
and come over across the yard, a dog  
at his heels.

He was a mere lad, and it seemed to  
me that there was something familiar  
about his manner of walking, although  
I did not in the least place him. To-  
wards me he came, keeping behind the  
circle of men, his face all the while  
hidden by an old slouched hat. As  
he passed me, however, he glanced  
furtively up.

"Why, Joe!" I exclaimed.  
He paused and I joined him, and to-  
gether we walked behind the barn.

"Where did you come from?" I asked.  
Without speaking, he pointed to the  
North.

"And where are you going?" I con-  
tinued.

He pointed again towards the South-  
west. "Big wigwams," he replied.

"Oh, of course. Where the noisy  
water pours into the lake," I said. "You'll  
be staying there for the winter. Where  
have you been all summer?"

Again he pointed to the North. "Many  
moons there," he replied.

"And were the 'munedoo's' (spirits)  
good to you?"

He nodded.

"Big water—much fish," he explained.

"Then Peponahbay comes, (the god  
of the North, who makes the winter).  
—No good.—Come back."

"I looked for you much, Joe, when  
the leaves were falling," I said, hastening  
to come to the thing that was in my heart.  
"I wanted to find Wabadick or you to  
learn if you had seen or heard of 'Oogene-  
bahgooquay.'"

Quickly he looked at me, his face  
alight.

"You saw her, Joe?" I asked.

"Oogenebahgooquay come to wigwam!  
Buy new clothes! Go away then!"

"What clothes? Tell me, Joe," I  
demanded, catching him by the arm,  
at which he drew away, so that I feared  
I had defeated myself, and had to use  
some tactfulness before he would talk  
again.

"Whose clothes?" I begged at last.  
"Tell me all about it, Joe. You know  
I love Oogenebahgooquay, the wild rose  
woman, and I want to find her and be  
good to her. Tell me about the clothes,  
Joe."

"Clothes—me," he answered, pointing  
to himself.

"Your clothes?"

"Clothes—me. New clothes," he re-  
peated.

I stared at him stupidly.  
For I do not know how long I stood as  
one stunned, trying to collect my thoughts  
yet conscious all the while of the worrying  
crack, crack of the rifles on the other  
side of the barn. Then, as in a flash of  
clear light, understanding came to me.  
I saw the dim forest by the spring. I  
heard Howard Selwyn's voice. I saw him  
come down to the water—and I saw the  
Indian lad who accompanied him.

And then all the fury in my body arose  
against this man who had come between  
me and my girl, and my very eyes went  
blind as I wondered what had become of  
her,—while all the while came the crack,  
crack of the rifles just over the barn.

I think my face must have gone white,  
for when I came to myself Joe was  
watching me curiously, though motion-  
less as a figure hewn from stone.

"Wher did she go, Joe?" I asked, but  
I scarcely knew my own voice, so heavy  
and thick was it.

"Oogenebahgooquay no tell," he said.

"I must find her," I said. "Joe will  
you help me?"

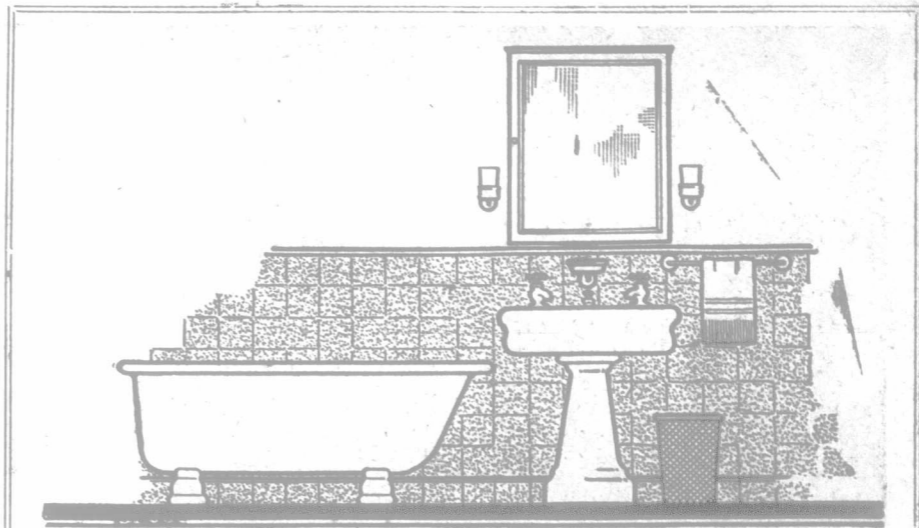
He gave a grunt of assent.

And then I went to the fence where  
my horse was tied, and loosed him, and  
sprang to his back and set off on a mad  
gallop, with only the one thought in me  
—to find Howard Selwyn. Further than  
that I could not go.

But at perhaps a quarter of a mile away  
it occurred to me that this mad riding  
might be misconstrued by those—  
"rebels"—whom I had left behind, and  
and so I turned and galloped back,  
to find, indeed, some of the men grouped  
and looking towards me, with Clinken-  
bocker in their midst evidently much  
relieved at my return.

"Come here, Clinkenbocker. I want  
to speak with you," I said.

And so he came close to me, and the  
group of men went back to the trap-



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white long after other enamels have turned yellow.

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effect its lastingness—a point to  
remember. Once you have this  
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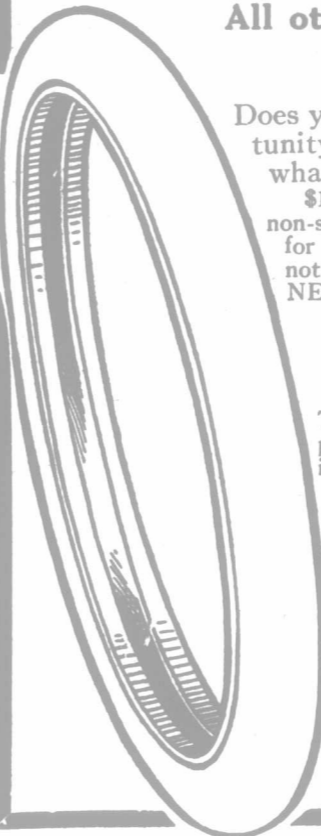
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TORONTO

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Non-Skid, \$15.45

All other sizes at a similar  
CUT RATE



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tunity to buy new tires at a big reduction on  
what you usually pay.

\$13.45 for a Ford Size Tire, plain, or \$15.45 for a  
non-skid. You will have to pay at least \$10.00 more  
for tires similar to these anywhere in Canada. Do  
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in Ontario, Quebec or Maritime Provinces.

If you are satisfied that the Tires are as re-  
presented—buy them—otherwise ship them back  
at our expense. In ordering please state whether  
"Clincher" or "Straight Wall"—Plain or Non-  
Skid.

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Guaranteed, \$2.50 each.

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TORONTO

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several years I find myself unable to continue, do I lose all I have paid?"

The answer is altogether assuring. In the Great-West Life Assurance Company the most ample  
provision is made for this and every other contingency. After paying three Premiums the Policy-  
holder may, if need arises, either

Accept a loan on his Policy of sufficient to pay the next premium.

Accept a paid-up Policy for an amount stated in the contract.

Extend the Insurance for a given period without the payment of  
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There is no possibility of loss under a Great-West Policy. Rates are low, and the profits to  
Policyholders remarkably high.  
Information on request.

THE GREAT-WEST LIFE ASSURANCE COMPANY

Dept. "Z"

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IDEAL FENCE & SPRING COMPANY OF CANADA  
WINDSOR ONTARIO LIMITED

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10 Mill St., Elora, Ont.

## Seed Potatoes

Price: \$2.00 per bushel. Bags free. I have for sale a limited quantity of Pennsylvania Never-Blight Potatoes. Will stay green until killed by frost, no matter how bad season is for blight. Good cropper and an excellent cooker.

GEO. W. McDOWELL, UXBRIDGE, ONTARIO

shooting, and I told him that I had just heard of a dear friend who, I feared, might be in need of me, so that I must go at once to find her.

In my distraction I said "her", and perhaps it was well I did so, for a look of comprehension came upon the Sea Lion's countenance, and I think he saw I was much distressed.

"Oh, is it your girl?" he said. "Go on then."

Thus dismissed, I set off again, nor did I halt until I had drawn up at The Wigwam and asked for Howard Selwyn. But not a soul was there who knew where he was. He had gone away, they said, on the night before, without leaving any word in regard to his plans.

After that I rode to every hostel in the town, beginning with "The Mansion," which is the most likely stopping-place for such as he; but he had been at not one of them all.

And so I came home here to my uncle's. But my search has begun again, and this time it will not be checked.

I would not work this Selwyn harm if he is innocent, but if he has done aught to crush my girl—my Oogenebah-gooquay, my wild rose woman—he will answer for it. That I swear!

In vain my reason tells me that she fled from me, that she does not want me. I will find her. I will know that it is well with her. My little wild rose!

Have I missed her already in this place? Looking into faces of the girls only, have I missed her. Has she gone by me, in her lad's clothing and I have not known?

The thought drives me mad. Henceforth I must look into the faces of the lads as well as the lasses.

And when I meet with Howard Selwyn he will explain or have it out with me. We shall see whether he can take—and crush—the roses, without finding the thorns.—If, indeed, he has crushed.

Now do I know my distrust of him. In my ears rings his voice, "Pluck the roses while you may," and the music of his chanting, "Love sought is good, but given unsought is better."

And yet how can I wonder that Barry fell under his spell when I myself have felt it. All unsought she may have given her love, poor child!—But does Howard Selwyn know how to guard and cherish unsought love—however sweet and pure it may be?

That I will know.  
(To be Continued.)

### The Habit of Being Adequate.

A great psychologist has said: "Life is forever asking you this question: Will you be adequate—will you really be adequate to specific details? And if you say I will try to be adequate you begin at that point to be inadequate."

It is this habit of being adequate in the everyday emergencies of life that distinguishes the great and successful.

A large self-confidence is built up by positive action and positive decision in the numberless small things of life. Form the habit of being adequate in the small things. Do not allow yourself the luxury of indecision. Indecision makes for all kinds of weakness and failure. Mark out your course to the best of your ability and stick to it until you see some good reason for changing. Do not waver even in your own mind. Be adequate to the small things and you will be ready for greater things.—William E. Towne, in Nautilus.

A story is being told of a couple of tourists in Spain who could not speak the language, and consequently had some difficulty in making known their wants. One day they came to a wayside inn and tried to obtain some meat—roast beef, for choice. But nobody could understand them. "What are we to do?" said one traveller. "I know," said the other, a ray of hope appearing. "I'll draw a picture of a cow. Then they'll understand." He made a rough sketch of a cow, put "2" beneath it and handed it to the waiter, who instantly smiled to show that he understood, and went off to execute their order. A few minutes later he returned with two tickets for a bullfight.

## Current

During the home many battalions from overseas, and 4th Battalion Stationary Hospital.

Deputations a Hon. Dr. Cody, for Ontario, to at plans for consoli-

The women of church at Stratf equally with m gregational and v

The 58th An Ontario Educat in the Universi during Easter v Moore of Dunda

Beginning on States' Governm on luxuries, incl valises, hats, u robes, etc.

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The situation in regard to Fi Orlando and Ba to Rome, and that 100,000 Ita Dalmatia. It a compromise n the Italian del sign the Peace George, Premier dent Wilson all Slavs should hav natural sea-port Slavs but for Roumania as w be better served possession. The plebiscite taken, territory, but the because, since t territory along t Adriatic are c exception of the chiefly Italian, th result in favor of



### Current Events.

During the week Canada welcomed home many battalions and other units from overseas, including the 1st, 2nd, and 4th Battalions and No. 3 Canadian Stationary Hospital.

Deputations are calling, every day, on Hon. Dr. Cody, Minister of Education, for Ontario, to ask details in regard to the plans for consolidated schools.

The women of St. James (Anglican) church at Stratford, Ont., sat and voted equally with men at the annual congregational and vestry meeting on Apl. 21.

The 58th Annual Convention of the Ontario Educational Association met in the University Buildings, Toronto, during Easter week, with Mr. W. F. Moore of Dundas as President.

Beginning on May 1 the United States' Government will impose a tax on luxuries, including expensive trunks, valises, hats, underwear, shoes, bathrobes, etc.

Gen. Hertzog has gone to England at the head of a delegation of Boers who are asking for self-government under the principle of self-determination of small nations. During the week also, 40 delegates from the Philippine Islands came to Washington to ask for independence. President Wilson has assured them that their request will likely be granted in the near future.

By the new arrangement between France and Great Britain, Britain agrees to use her military forces in defence of France should the latter be attacked by an enemy. President Wilson will ask Congress to grant a similar assistance on the part of the United States.

The Poles are not satisfied with the proposal to internationalize Dantzig. If Premier Paderewski does not succeed in gaining its cession to Poland he will likely have to resign, and the country will again be in the hands of Party Government. Germany, on the other hand, is refusing to grant Poles passports from Dantzig.

A British Expeditionary force has arrived at the Murman Coast to strengthen Gen. Maynard. Near Archangel, on Apl. 13, the Allied forces defeated Bolshevik troops. Along the south-eastern front of European Russia, also, the Bolsheviks are being driven back by Admiral Kolchak's forces.

Budapest, with its Hungarian Soviet Government under Bela Kun, is now menaced by three armies—the Czechoslovaks on the north, the Jugo-Slavs on the south, and the Roumanians on the east. In Bavaria national troops are closing in upon Munich; the Hoffman Government on Apl. 22, issued an appeal to the whole Bavarian people to arise and fight against the Munich terrorists. Vienna on April 20 came into the hands of the Reds.

The situation at the Peace Conference in regard to Fiume is acute. Premier Orlando and Baron Sonnino have gone to Rome, and it has been announced that 100,000 Italian troops will occupy Dalmatia. It is hoped, however, that a compromise may be reached so that the Italian delegates will return and sign the Peace Treaty. Premier Lloyd George, Premier Clemenceau and President Wilson all believe that the Jugo-Slavs should have this city, which is the natural sea-port not only for the Jugo-Slavs but for Bohemia, Hungary and Roumania as well, all of which would be better served were the Jugo-Slavs in possession. The Jugo-Slavs want a plebiscite taken, over the whole coast territory, but the Italians object to this because, since the people of the coast territory along the eastern side of the Adriatic are chiefly Slavs, with the exception of those in Fiume, who are chiefly Italian, the plebiscite would surely result in favor of the Jugo-Slavs. By the

last secret Pact of London the islands along the shore were given to Italy, but not Fiume. Wilson stands firmly for the principle of open diplomacy, holding that all secret pacts must come second to those formed openly and discussed by the public. An American peace settlement, he says, must not be based on treaties at variance with American principles. Should the Jugo-Slavs come out on top in regard to Fiume the Chinese will present their grievance against Japan over the Shantung question.

### The Dollar Chain

Exclusively for blind and maimed Canadian soldiers, unless otherwise requested.

Contributions from April 18 to April 25: Jennie McCallum, Wilksport, Ont., \$1; O. Stewart, R 11, Peterboro, Ont., \$2; "Scotia", London, Ont, \$1.

Previously acknowledged.....\$5,987.50

Total to April 25.....\$5,991.50

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

### Let Boys and Girls Help Plan Farm Work.

BY P. G. HOLDEN, INTERNATIONAL HARVESTER COMPANY.

Not long ago an Iowa farmer was heard to say: "In planning my farm work for next year I am going to consult my wife and the children."

This ultimately proved to be the greatest idea this farmer ever had.

If every farmer will take the family into his confidence he will solve many perplexing problems. Often the boys can give their fathers helpful ideas. You will be surprised at the way Mother and the girls can help plan the work of the farm and the household so that there will be full co-operation among all members of the family. Let the boys and girls feel that they have an interest in the farm—that they are not working simply for their "keep". When they feel that they have responsibility, that the success of the farm depends on them as well as upon "Pa" and "Ma," they will put forth their best efforts.

Co-partnership in the management and operation of the farm will instill within them the pride of ownership; will teach them to think in terms of action and results, in terms of accomplishment.

See that your children own something—a calf, a pig, or a lamb. Let the ownership be permanent, not temporary; real, not imaginary. Don't let it be Willie's pig and Pa's hog. Let it be Willie's hog and give him the price of the hog when it is sold. This will give motive to his work, stimulate interest, develop initiative, train him in terms of business.

Co-partnership in field and home management, responsibility, ownership—these will keep the boys and the girls on the farm, make them successful men and women, quick to grasp opportunity, able to compete with the world's workers in the accomplishment of the world's greatest work, that of agriculture.—Journal of Education.

### Washing a Silk Dress.

Do you want your silk frock to look good as new after being washed? Then be careful in the process. Half of the life of the color in silk is in the washing. A silk manufacturer gives the following directions for washing the fabric: "At the first washing put the silk in cool water and wash it with a lather of fine white soap. No soap should be rubbed on the silk at any time, and at no time should even warm water be used. A handful of salt or a good dash of vinegar in the water may keep the high colored dyes from running. Silk should be allowed to get thoroughly dry before ironing. Then it may be dampened again and ironed immediately with a moderately hot iron."—Sci.

## Raise Calves But Sell Your Milk

DEMANDS for milk and more milk continually increase, yet there is such a shortage of cattle in the world, you must raise your calves—

This is not impossible to a man who uses

## CALDWELL'S CALF MEAL

This is the best "vealing-up" ration you can feed your calves. Mix it with separator milk or water. Your calves will thrive on it just as rapidly as on new milk, yet you save money because this feed costs you less than the price you get for your milk.

Your dealer most likely carries this feed, if not we will send you the address of the nearest dealer who does, or ship direct.

THE CALDWELL FEED AND CEREAL CO., LIMITED Dundas Ontario

We operate the largest exclusive feed mills in Canada—and make all kinds of stock and poultry feeds. We can send you prices and information on any rations you require.

KEITH'S

THE FARMERS SEEDSMAN SEEDS FIFTY-THREE YEARS SERVICE

1866 1919

SEED CORN—OUR GUARANTEE—

You are given 10 days after arrival at your station in which to test any corn purchased from us. If you find it unsatisfactory, return it to us within the above limit, and we will refund purchase price. The reason for this guarantee is that we know that the seed will germinate 90% or better—we have tested it.

Our Prices on Cob—Bags Free.

Per Bus. 70 lbs.	Per Bus. 70 lbs.
Longfellow.....\$4.25	Wisconsin No. 7.....\$3.75
White Cap.....3.25	Bailey.....3.75
Golden Glow.....3.75	Improved Leaming.....3.75

If you order 25 bushels of corn, or more, we will allow a reduction of 25c. per bushel.

<p style="text-align: center; font-weight: bold;">Government Standard.</p> <p>No. 2 Timothy..... Bus. 7.25 (Extra No. 1 for purity)</p> <p>No. 2 Alfalfa (Ontario Variegated) (No. 1 for purity)..... 27.00 Alfalfa Scarified \$1.00 Bushel extra.</p> <p style="text-align: center; font-weight: bold;">RAPE</p> <p>Dwarf Essex..... Per lb. \$ .16</p> <p style="text-align: center; font-weight: bold;">SUGAR CANE</p> <p>Sorghum or Amber..... Per lb. \$ .9</p>	<p style="text-align: center; font-weight: bold;">MANGEL SEEDS</p> <p>Prizetaker, Giant Half Sugar, Yellow Intermediate, Yellow Leviathan Mammoth Long Red. All seed, Germination, 112 to 160 per cent. Price, 60c per lb. Postpaid, 65c. per lb. 25 lbs. or more at 50c. per lb.</p> <p style="text-align: center; font-weight: bold;">SWEDE TURNIPS</p> <p>Prizetaker, Canadian Gem, Lord Derby, Price \$1.00 lb., Postpaid, \$1.10 lb. 25 lbs. or more at 80c. per lb.</p>
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ASK FOR CATALOGUE

GARDEN SEEDS

Get your wife to make out your garden seed order from our catalogue. Liberal packages, strong, vigorous seed (tested for germination) and the most reasonable on the market. We buy direct from the grower and sell direct to you. No middleman's profit.

GEO. KEITH & SONS SEEDS

124 KING ST. E. TORONTO

RAISE RABBITS

New Zealand Red, Flemish Giant and Belgian Hares. Pay five to ten times better than chickens. Breed every month in the year, 6 to 12 to a litter. Easy to raise. We sell high-grade stock and buy all you raise from same at \$7.00 a pair. 32-page book on housing, breeding and feeding, 4 cents. DAVIS & SON, 128 AVE. 31, LOS ANGELES, CAL.

For Sale—5 H.-P. Gilson Gasoline Engine with clutch pulley; also 8-inch plate chopper and 40 feet of 5-inch belting; all nearly new.

GEO. MILLEN Fruitland, Ontario Please mention Advocate



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 GESE, INDIAN RUNNER, Muscovy ducks, Guineas, Barred Rocks, Spanish R. I. Reds, White Leghorn, White Wyandotte, Anconas, Campines. Eggs only. John Annesser, Tilbury, Ontario.

BARRED ROCK EGGS; FIFTEEN, TWO dollars; thirty, three fifty; ten dollars, one hundred; from hens that are bred and hatched right and grand layers. Order from this advertisement. Satisfaction guaranteed. W. Bennett, Box 43, Kingsville, Ont.

BARRED PLYMOUTH ROCK BEAUTIFULLY hatched strong bone, heavy egg production. Eggs \$2.00 per 15. Jno Fenn Flattville Ont.

BARRED ROCKS, O. A. C. CHOICE FLOCK of large healthy birds, good layers. Eggs \$1.25 per doz. postpaid. R. L. Easton, Princeton, Ont.

BABY CHICKS FOR SALE—BARRED ROCKS, White Wyandottes, Rhode Island Reds and S. C. White Leghorns Barron strain, April delivery \$30 per hundred, May delivery Wyandottes \$28 and Rocks, Reds and Leghorns \$25 per hundred. 98% safe arrival guaranteed. Finest flocks in Canada. Fred J. Hind, Baby Chick Specialist, 1378 Queen St. E., Toronto, Ontario.

BRED-TO-LAY White Wyandottes, White Leghorns, eggs for hatching, fifteen \$1.50, hundred \$7.00, carefully packed. Broken eggs replaced. Address: H. Baird, Route 1, New Hamburg, Ontario.

BARRED ROCKS—PARKE'S AND O. A. College bred-to-lay strains. Can supply cockerels. Write your wants. Eggs \$3 for 15. M. A. Gee, Selkirk, Ont.

BARRED ROCK COCKERELS FOR SALE AT reduced prices. Satisfaction guaranteed. Write John Pringle, London, Ont.

BRED-TO-LAY TOM BARRON WHITE Leghorns and Barred Rocks; one-fifty per setting. Henry Hooper, 83 Nottingham St., Guelph, Ont.

BEULAH FARM WHITE WYANDOTTES. I have more 200 egg ribbons won by my hens at American Egg Laying Contests than all the other White Wyandotte breeders in Ontario combined. Hatching eggs \$3.00 per setting and from hens that laid over 200 eggs \$5.00 per setting. Mating list free. N. Y. McLeod, Stoney Creek, Ontario.

BRED-TO-LAY WHITE ROCKS, ONE FIFTY per fifteen, seven fifty per hundred Large brown eggs. Sam Hastings, Schomberg, Ontario.

CLARK'S BUFF ORPINGTONS AND O.A.C. pedigree laying rocks eggs. Orpingtons Best Mating Exhibition, \$5. 15. 2nd Best \$3. 15; \$5. 30. 3rd \$2. 15; \$4. 50, 50; \$8. 108. Rocks \$2. 15; \$4. 50, 50; \$8. 108. Satisfaction guaranteed. J. W. Clark, Cedar Row Farm, Cainsville, Ontario.

CANADIAN RINGLET BARRED ROCKS—Trapped daily for 5 cars. Send for records. Tested hatching eggs. F. J. Coldham, Box 12, Kingston, Ontario.

CYPHERS WYCKOFF BRED-TO-LAY S.C. White Leghorns, baby chicks and hatching eggs. Catalogue free, giving description and prices. Cooksville Poultry Farm, Cooksville, Ont.

EGGS AND DAY-OLD CHICKS FROM extra heavy laying strains of Barred Rocks, White Rocks, Reds, Wyandottes, Orpingtons, Minorcas, Spanish, Leghorns, Brown Leghorns, Anconas, Spanish, Silver Hamburgs, Cornish, etc. Also duck eggs, Pekin, Albany, Rouen, Runners, Fawn, penciled and Pure White. Write for our free mating list. M. Shantz, Ayr, Ont.

FERTILE HATCHING EGGS—TEN YEARS selective breeding—Rose-comb Rhode Island Reds; bred for size, vigor and production of bred-to-lay strains; fifteen, \$2.00; thirty, \$3.50; eight dollars per hundred. Robert J. Brown, R.R. 2, Cornwall, Ontario.

FAWN INDIAN RUNNER DUCKS AND single-comb white Leghorns. The right laying strains, eggs 10 cents each. Hastings Bros., Guelph, R.R. 7, Ont.

HEDGE ROW FARM. SINGLE-COMB Brown Leghorn eggs \$1.50 for 15, out of a beautiful flock. Heavy layers. H. W. Thur, Elora, Ontario.

HATCHING EGGS AND BABY CHICKS Heavy laying Barred Plymouth Rocks, Rhode Island Reds and S. C. Leghorns. Sales lists free. Eggs \$1.50 per 15; \$4.50 per 50; \$8.00 per 100. J. F. McDonald, Barrie, Ont.

HATCHING EGGS—BARRED ROCKS AND White Leghorns; heavy layers; quality and fertility very high. Two dollars per fifteen. R. J. Parkinson, Granton, Ont.

MINORCA EGGS, BOTH COMB, ONE fifty per fifteen, also cockerels four dollars each. Fred Reekie, Camperdown, Ontario.

PURE-BRED ANCONA, SINGLE-COMB shepherd strain, egg for setting 8c. each. John A. Pollard, Dashwood, R.R. No. 2, Ontario.

PURE-BRED INDIAN RUNNER DUCKS great layers. Eggs, one dollar and fifty cents per twelve. K. Brown, St. Marys, Ont.

PURE-BRED SINGLE-COMB WHITE LEGHORNS, Rose-comb White Wyandottes, bred-to-lay and prizewinning stock. Eggs, \$2.00 per fifteen. Esra Stock, Woodstock, Ont.

PLYMOUTH ROCK LAYING STRAIN, FROM Agricultural College—\$1.50 per setting. Mrs. Berry, 52 Queen St., Guelph.

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, Ont.

SPECIALISTS IN BARRED ROCKS SEVEN-TEN years. Eggs for hatching, Guild and Ringlet strains bred-to-lay, hens have free range. \$1.50 two dollars; fifty for five. J. F. Werden 211 Sen. R. S. Pictou, Ont.

S.-C. WHITE LEGHORN, PURE-BRED barron strain; eggs for hatching \$1.25 per setting. W. Ralph, R.R. No. 1, Ettrick, Ontario.

SINGLE COMB WHITE LEGHORNS EGGS from Tom Barror strain, one fifty per setting. J. E. Honsberger, Dunnville, R.R. 4.

SILVER GREY DORKING EGGS FROM A careful selected laying strain. Imported cockerel head of pen, \$2 per 13. W. Shore, Ilderton.

TURKEYS AND GESE—WE HAVE THIS spring 40 healthy Bronze turkey hens, mated to husky young toms. Eggs in season, \$5.00 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 WYANDOTTE EGGS FOR HATCHING, heavy layers and prize winners. Two to five dollars per setting. Stock for sale. J. McCaffrey, Newmarket, Ont.

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

YEARLY TRAPPED BARRED ROCKS hatching eggs, fifteen, two dollars; thirty, three fifty; records and mating list free. W. J. Johnston, Drawer 246, Mafort, Ontario.

BABY CHICKS

Barred Rocks, White Wyandottes, White Leghorns Bred-to-lay from Parks, Poorman's and Barron's strains. These are known as America's best. Prices On Application. Special prices to Farmers' clubs and others in lots of 300 and over.

LUCKNOW HATCHERY LUCKNOW - ONTARIO

EGGS WANTED Highest cash price paid. POULTRY WANTED We require a large quantity of heavy live hens. It will pay you to sell to G. A. MANN & CO. 78 King St. London, Ont.

Prison Authors.

"Prison Authors" is the subject of an interesting article by "Penguin" in the "Nation." Bunyan, he says, is, of course, the writer who first presents himself to one's mind in thinking of a list of prison authors. The tradition is that Cervantes planned "Don Quixote" when thrown into prison for debt at Seville, and that he began to write it in another prison at La Mancha. Boethius wrote "De Consolatione Philosophiae" while a prisoner at Pavia, under sentence of death. Then there are the prison poets. One of them, James Montgomery, wrote a poem on the unusual subject of the "Pleasures of Imprisonment," James Montgomery, whose offence consisted in commenting upon the conduct of a magistrate in quelling a riot at Sheffield in 1795, is not to be confused with Robert Montgomery, the subject of Macaulay's attack. Other prison poets were the Earl of Surrey, who gave us the first example of English blank verse; Robert Southwell, the Jesuit martyr; the Puritan, George Wither; the Cavalier, Richard Lovelace; and the Chartist, Thomas Cooper. Pope, in the "Dunciad," described Wither as sleeping amid the dull of ancient days, safe where no critics damn; but an essay by Charles Lamb rescued Wither from oblivion. "The prison notes of Wither," says Lamb, "are finer than the wood notes of most of his brethren" and his voluminous works are a mine in which anthologists find treasure. Lovelace prepared his volume of poems, called "Lucasta," for the press while in prison. It contains the famous verses "To Althea," with the appropriate opening of the concluding stanza:

"Stone walls do not a prison make, Nor iron bars a cage."

Cooper, who wrote "The Purgatory of Suicides" in prison, seems to suffer to-day an undeserved neglect. He is not even mentioned among "the lesser poets" in "The Cambridge History of English Literature," though some of his works are entered in the bibliography. Leigh Hunt belongs to the list of prison authors. His poem, "The Descent of Liberty," and part of "The Story of Rimini" were written while he was serving a sentence for having described the Prince Regent, in an article in the "Examiner," as "a corpulent man of fifty." Judging from Hunt's "Autobiography," his imprisonment in Horse-monger Lane Gaol was as far removed from real hardship as his offence was from a real libel. Among the prison books which the collector, "to middle fortune born," need not despair of securing in their best editions are Sir Walter Raleigh's "History of the World," William Penn's "No Cross, No Crown," John Mitchell's "Jail Journal," and Oscar Wilde's "Ballad of Reading Gaol" and "De Profundis." Perhaps I ought not to hold out hopes of an early edition of Penn's book. Meanwhile, I live in hopes that some day a prisoner will, while in prison, write a book about prison books. The Australasian.

Is There Money In Hens? 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. The Banwell-Hoxie Wire Fence Co., Ltd. Winnipeg, Man. Hamilton, Ont.

Partridge Tires Mighty Aids To Progress Partridge Tires have proven that they occupy a premier place in the march of progress. Such a position is based on performance and achievements due to their dependability. Made by The F.E. Partridge Rubber Company, Limited, Guelph, Ont.

COLLINS CYCLE INCUBATORS DO GOOD WORK READ THIS—Our Latest Recommendation: Having bought one of your Cycle Brooder Hatches I wish to let you know they are a remarkable machine, as my first experience has been very successful in getting a chick from every fertile egg, and I might say they seem to be thoroughly enjoying themselves in the Brooder. (Signed) T. A. CROSBY. Satisfied customers prove the worth of our Incubators and Hovers. Cycle Hatches only \$8.00. Brooder Hatcher \$10.00. A post card brings our free catalogue. Write to-day. THE COLLINS MFG. CO., 411 Symington Ave., Toronto

Wholesale Apples again very high quality which price of \$6 per 11-quart Pineapples more freely selling at \$7 and 24's. Strawberries of choice quality to 26c. per quart box. Asparagus, selling at large bunches Beets and 75c. to 90c. per Carrots kept Turnips advanced, selling Onions were 100-lb. bag for Potatoes at \$1.75 to \$2 quoted at \$2 Irish Clobber \$2.50 per bag.

Horses.—The unchanged any price for that class. Prices were, however, from 1,500 to 1,800 lbs., \$200 to \$250 and fine saddle horses \$175 to \$250 each.

Dressed Hog market for dr tone and city was selling at 31c. per lb. and cured meat at 40c. per lb; heavy weights bacon was 44c. to 47c. to boneless 49c. to leaf lard sold Barreled pork for Canadian cut fat backs and \$43 for Bacon.

Poultry.—Sour and were quoted and 15 cents quantity of poultry from the cold storage were quoted at 36c. to 38c. for ducks, 38c. to 31c. per lb. Potatoes.—The market was closed the past week Quebec stock quoted to \$2 a bag of 25 cents more charged, ex-storage apparently not high.

Maple Product good demand for sugar and the Syrup was quoted per 13-lb. tin a while sugar was 25c., according to Eggs.—Although young, prices a sales of fresh-gathered 45c. to 46c. for 47c., cases returned large and produced. It is understood place to the other.

Butter.—The has advanced solid packages of 66 cents per lb. quoted at 64 cents now until there price. Grain.—No. 2 were quoted at No. 1 feed were \$2.00, No. 2 feed, 79c. white, 82 cents Ontario No. 2 bar extra No. 3, \$1.2



**Markets**

Continued from page 870.

6 lbs., 34c. per lb.; roosters, 25c. per lb.; ducks, 35c. per lb.

**Wholesale Fruits and Vegetables.**

Apples again kept stationary in price, with very light offerings—a car of Western-boxed Winesaps of exceptionally fine quality which arrived, selling at the high price of \$6 per box—Ontarios ranging from \$6 to \$14 per bbl., and 85c. to \$1.25 per 11-quart basket.

Pineapples are beginning to come in more freely and are gradually declining, selling at \$7 to \$7.50 per case of 30's and 24's.

Strawberries.—Louisiana strawberries of choice quality arrived, selling at 20c. to 26c. per pint box, and 42c. to 48c. per quart box.

Asparagus.—Cal. asparagus arrived freely, selling at \$6.50 to \$8 per case of 12 large bunches.

Beets and parsnips declined, selling at 75c. to 90c. per bag.

Carrots kept firm at \$1.50 per bag.

Turnips were very scarce and advanced, selling at 80c. to 90c. per bag.

Onions were strong at \$4 to \$5 per 100-lb. bag for choice quality.

Potatoes advanced; Ontarios selling at \$1.75 to \$1.85 per bag, and a few quoted at \$2 per bag—New Brunswick Irish Cobbler seed potatoes selling at \$2.50 per bag.

**Montreal.**

Horses.—The market for horses was unchanged and the carters' strike precludes any possibility of demand arising for that class of horses in this vicinity. Prices were, heavy draft horses, weighing from 1,500 to 1,700 lbs., \$250 to \$300 each. Light draft, weighing from 1,400 to 1,500 lbs., \$200 to \$250 each; light horses, \$215 to \$175 each; culls, \$50 to \$75 each, and fine saddle and carriage horses, \$175 to \$250 each.

Dressed Hogs and Provisions.—The market for dressed hogs shows a firm tone and city abattoir fresh-killed stock was selling at record prices, viz., 30½c. to 31c. per lb. The market for smoked and cured meats was firm with light hams at 40c. per lb; mediums, weighing from 12 lbs. to 15 lbs., 38c. to 39 cents, and heavy weights 36c. to 37c. Breakfast bacon was 44c. to 45c. Windsor select bacon, 47c. to 48 cents, and Windsor boneless 49c. to 50 cents. Canadian pure-leaf lard sold at 31½c. to 32c. per lb. Barrelled pork was still quoted at \$54 for Canadian short-cut, \$52 for short-cut fat backs and \$45 for mess pork and \$43 for bean pork.

Poultry.—Some broilers were arriving and were quoted at 55c. to 60c. alive, and 15 cents more dressed. Quite a quantity of poultry is being shipped out from the cold storage. Cold stored turkeys were quoted at 46c. to 48c., chickens, at 30c. to 38c. per lb.; fowls, 32c. to 37c.; ducks, 38c. to 43c., and geese, 29c. to 31c. per lb.

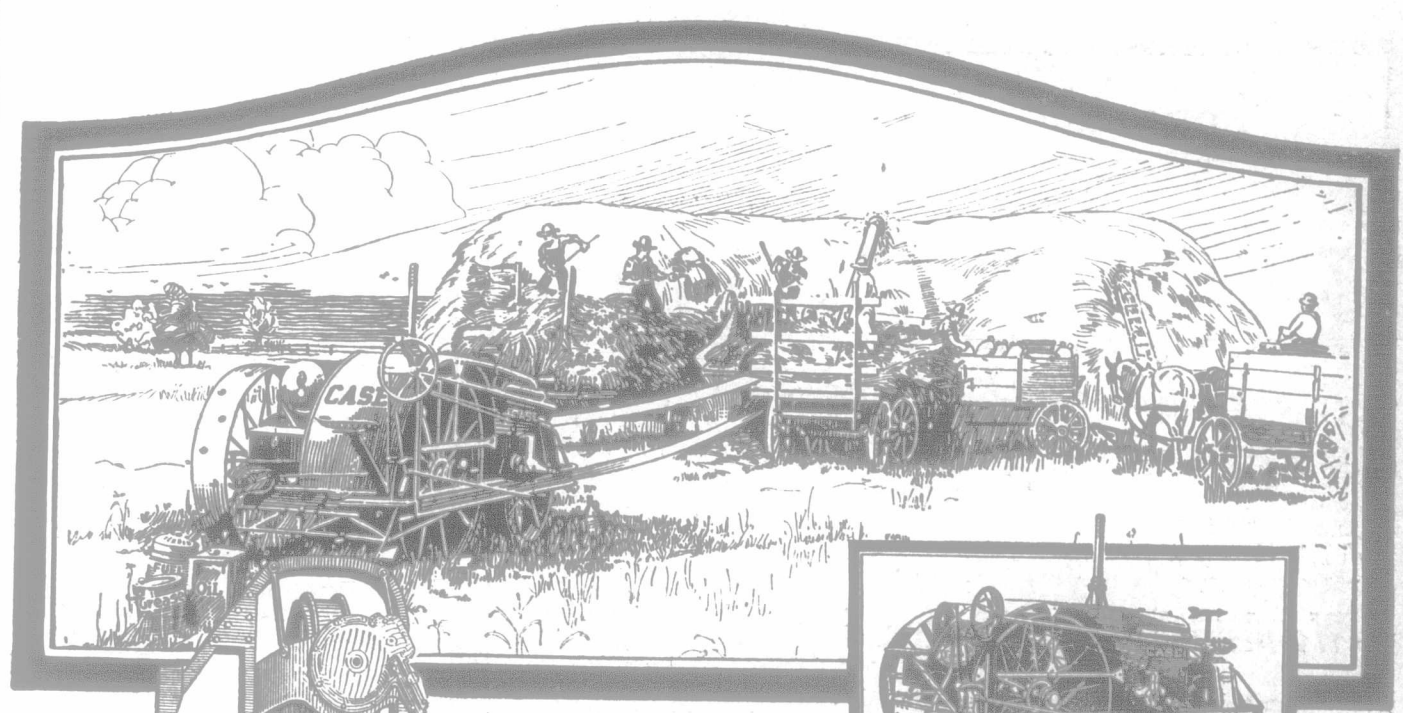
Potatoes.—The tone of the potato market was considerably firmer during the past week and prices advanced with Quebec stock quoted, in car lots, at \$1.90 to \$2 a bag of 90 lbs. In a smaller way 25 cents more than these figures were charged, ex-store. Green Mountains have apparently not been arriving recently.

Maple Products.—There has been a good demand for both maple syrup and sugar and the market held fairly steady. Syrup was quoted at \$2 to slightly more per 13-lb. tin and \$1.60 per 8½-lb. tin, while sugar was unchanged at 22c. to 25c., according to quality.

Eggs.—Although the season is still young, prices are moving upwards and sales of fresh-gathered were reported at 45c. to 46c. f.o.b., with holders asking 47c., cases returnable. Consumption is large and production is quite liberal. It is understood that exports are taking place to the other side of the Atlantic.

Butter.—The market for creamery has advanced and choicest makes in solid packages were quoted as high as 66 cents per lb. Fine creamery was quoted at 64 cents. It will not be long now until there will be a reduction in price.

Grain.—No. 2 Canadian Western oats were quoted at 87½c.; No. 3 and extra No. 1 feed were 84½c.; No. 1 feed, 82½c.; No. 2 feed, 79½c., and Ontario No. 3 white, 82 cents per bushel, ex-store. Ontario No. 2 barley was quoted at \$1.24, extra No. 3, \$1.22; No. 3, \$1.21; No. 4,



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**Steady, Constant Power for Threshing**  
This Case 10-20 is Recommended for All Kinds of Belt Work

The Case 10-20 is praised as widely for its adaptability to all belt-work, as for its use in plowing and other field jobs. For five years it has proved its superiority on thousands of farms, not only throughout this country, but all over the world. Though rated at 10-20 horsepower, it can develop at least 20 per cent more.

Its powerful engine supplies that smooth, even power needed to keep your thresher running at uniform speed.

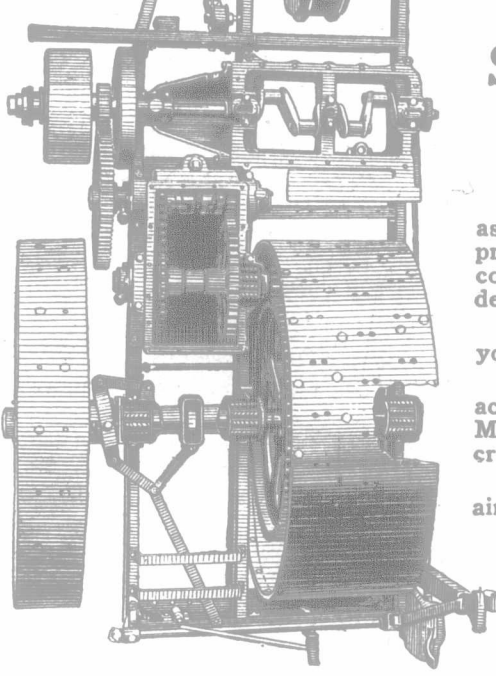
This smoothness of operation, for which the Case 10-20 is famous, is accounted for by the governor controlled, 4-cylinder, valve-in-head Case Motor, set crosswise on the main frame. The belt-pulley is located on the crank shaft, making it easy to "line up" to all belt-driven machinery.

Another great feature is the Case Patented Air-Washer which draws air through both screens and water, preventing dust or grit working into the cylinders. This tractor is also equipped with a Syphon Thermostat which maintains a uniform motor-temperature under varying loads and insures economical and thorough combustion of kerosene.

There is a Case 10-20 ready to deliver to you quickly. By acting now you are assured of a dependable tractor—one that is always ready for field or belt work.

Ask any Case dealer for a full description of the Case 10-20, or write to us direct. A careful study of all its specifications will show you its proven superiorities. It is a sound, practical tractor, worthy of the endorsement of a concern famous for its success in building power farming machinery of the highest grade. Investigate at once.

**J. I. Case Threshing Machine Company, Inc.** Founded 1842  
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Debentures issued in sums of \$100.00 and up—interest **5½%** paid on the dot—twice a year.

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ELMIRA NEW HAMBURG WOODSTOCK

\$1.18; No. 3 Canadian Western, \$1.22, and sample grades, \$1.10.  
Flour.—The market for flour continued firm and steady, with Government standard Manitoba wheat flour quoted at \$11 per barrel, in jute bags, ex-track, with 10 cents off for spot cash. Winter wheat flour was quoted at \$10.00 to \$10.32

per barrel, in cotton bags. White corn flour and rye flour were about \$8.50 per barrel in bags.

Millfeed.—The period of the year is now approaching when less millfeed will be required and prices were easing somewhat, with sales of bran taking place at \$44 to \$45.50, and of shorts at \$45 to \$45.50, in car lots, including bags, ex-track. Feed corn meal, \$64; pure barley, \$56 to \$58; mixed mouille, \$50 to \$52; dairy feed, \$46 and oat middlings, \$44 per ton, including bags, delivered to the trade.

Baled Hay.—The market for hay advanced. No. 1 timothy and No. 1 light clover mixed were quoted at \$30 per ton; No. 2 timothy, \$29; No. 1 clover mixture, \$28. Good No. 3 timothy, \$27.50, ex-track.

Hayseed.—Alsike was quoted at 35c. to 40c. per lb., Montreal; red clover 50c. to 55c., and timothy, 14c. to 17c. per lb.

Hides.—Lamb skins advanced to \$3.60 each. Horse hides were steady at \$5 to \$7 each; beef hides were 21c. per lb. for steers, 17 cents for cows and 15 cents a lb. for bulls; veal skins were 55 cents per lb., while grassers were 22 cents per lb.

**Cheese Markets.**

New York, specials, 32c. to 32½c.; average run, 31½c.; Montreal, finest Easterns, 24c. to 25c.

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ay the war debt—better  
lendid property for any  
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**Poultry Fence**  
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Guelph, Ont.

**GOOD WORK**  
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0.00. A post card  
e., Toronto



Important Unreserved Sale

FORTY HIGH-CLASS

HOLSTEINS

Listing the Most Select Small Offering of the Year

DRAFTS FROM THE FOLLOWING OXFORD COUNTY HERDS:

ELIAS SNYDER Burgessville J. B. HANMER Norwich FRANK J. GRIFFIN Burgessville

Selling at Rudd's Feed Stables, in the City of

Woodstock, Ont., Wednesday, May 14, 1919

For this sale, which is probably the last public offering of the season the above well-known Oxford County breeders have listed 40 Holsteins that will compare favorably with the best ever consigned to a sale of this size in the Dominion.

Mr. Snyder, on account of ill-health, sells his entire herd, which includes so many Toronto and London winners, headed by the noted undefeated junior champion of last year, Sir Francie Netherland Abbecker.

Mr. Griffin sells among others 12 daughters of that great breeding sire, Major Posch Mercena, ten of which are in full flow of milk, and will be tested for the first time in their lives between now and sale time. Those again rebred will be mated with Prince Sylvius Ladva, one of the most promising young sires of this district.

From the herd of J. B. Hanmer, the home of the new 51-lb. cow, comes three young cows, two of which are three-year-olds, and are now finishing records of better than 21 lbs., while the third is a four-year-old, whose dam is a sister to the dam of the 51-lb. cow.

WATCH THESE COLUMNS FOR FURTHER PARTICULARS.

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MANY a Farmer has told us that he first got the right idea about his barn requirements from a reading of our Big Barn Book.

It is full of practical information—and explains our method of supplying Barns ready to erect—at prices which represent a big saving.

We manufacture on a large scale and buy our materials in immense quantities—that's why we are able to deliver you a barn big enough for a 100 acre Farm for the low price of \$1813.00 and up.

Write for our Big Barn Book giving full particulars about Preston Steel Truss Barns. The Book is Free.

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PRESTON STEEL TRUSS BARN

WANTED—A NUMBER OF REGISTERED

Shorthorn Heifers and Clydesdales

Shorthorn heifers ages, 1 to 3 years. Cows up to 5 years; must be well made. Also wanted, a number of Registered Clydesdale stallions, 1 to 3 years; fillies rising 1 to 3 years; must have size and quality. Unless stallions have size and quality, please do not communicate, as they are useless to me. Can also do with 20 good Shorthorn bulls, 1 to 2 years.

Anyone with above-mentioned stock for sale kindly communicate, State county and telephone exchange when writing.

W. J. McCALLUM, Stock Importer, Brampton, Ontario

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Chicago.

Hogs.—Heavy weight, \$20.95 to \$21.10; medium weight, \$20.70 to \$21.10; light weight, \$20 to \$21; light, \$18.75 to \$20.70; sows, \$18.75 to \$20.50; pigs, \$17.25 to \$19.

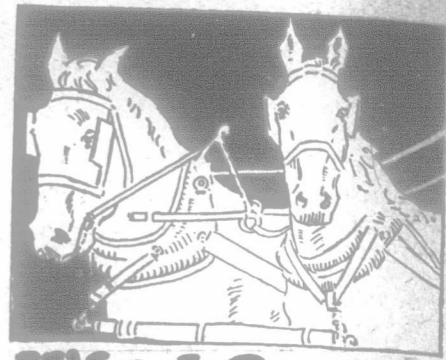
Cattle.—As compared with a week ago, choice steers steady. Others unevenly 25c. to 65c. lower, light weight suffering most. Best she stock 50c. to 75c. lower. Canners and low grades, 25c. to 50c. lower. Feeders mostly 25c. lower. Fleshy kind off more. Veal calves \$1.50 to \$1.75 lower.

Sheep.—As compared with a week ago woolled lambs and light yearlings mostly 40c. to 50c. lower. Shorn lambs, 75c. to \$1 lower. Best matured sheep steady. In-between grades weak to lower.

Gossip.

Percherons and Belgians at the Western Fair Stables.

A representative of "The Farmer's Advocate" made a visit recently to the stables of the La Fayette Stock-Farm Company of Canada, Ltd., at the Western Fair Grounds, London, Ont., to look over the long list of Percherons and Belgian horses now being offered to the Canadian public. G. R. Crouch, Vice-president of the company, who is well known to horsemen on account of his connection with the widely-known firm of J. Crouch & Son, La Fayette, Indiana, was in charge and had many fine stallions and mares led out. Mr. Crouch said that 25 horses were brought over; this number included stallions and mares of both breeds mentioned with a larger percentage of Percherons than Belgians. This Company is not partial to a small draft horse and the mares they are offering range in weight from 1,750 pounds up to a ton, while the stallions vary between 1,850 and 2,300 lbs. Space will not permit of a detailed account of the splendid stallions and mares that came out of the stables, but we desire to mention a few so as to let horsemen know what this new Company is offering. In Percherons, the first to come out was a black, three-year-old son of Kaptif which sire was a noted prize-winner in France and America. Then came a black, five-year-old grandson of the famous Carnot only to be followed by two dark-grey, well-built sons of La Fayette, which was for years the stock horse owned and held by J. Crouch & Son at their farm in Indiana. La Fayette weighed 2,250 lbs. and left many good colts, and the two half-brothers at the London stables are not exceptions. Another Percheron stallion worthy of favorable comment was Kamphere, an imported, well-built, dappled grey, weighing 2,100 lbs., while speaking of stallions it is opportune to mention two noteworthy Belgians that were domiciled at the London stables. One was the imported Aurorin, a flash mover weighing 2,200 lbs., and the massive, 5-year-old Hercule, a bay which carries his 2,300 lbs. at either the walk or trot with remarkable ease and in good form. One should see these stallions even if they do not wish to buy for they are representative of a breed of horses about which we know too little. Never have we seen at one stable in Canada so many good Percheron mares. Ina, a five-year-old grey is a show mare of the first quality. She is remarkably clean of limb, a splendid mover and good enough to win at many of the State Fairs and at Chicago. We furthermore saw a nice team of greys, four and five years old which weigh in the neighborhood of 3,750 lbs. This was a well-matched pair of females, clean and good movers. Then came a black team of good mares weighing in the vicinity of 3,785 lbs. with Percheron type and brood-mare characteristics. They could not lose a farmer any money if properly handled. In addition to this were a team of seven-year-old greys and another big team of blacks. All these and others yet unmentioned make a wonderful collection to be housed in one stable. There have been many visitors interested in this equine exhibition and Mr. Crouch remarked, "I want to say that we consider the Canadian farmers, taken as a whole, the best judges of horses in the world."



Which One Was Vicious?

One of these horses was a kicking, biting balker, one of the meanest type. The other was a gentle and willing animal. Mr. S. L. Arrant writes: "Just to test your methods I bought the worst balking, kicking, fighting horse I could find. For \$65. After handling him a few hours according to your system I sold him for \$134." You too can train horses and colts as easy as I do. I have given exhibitions all over the country. I will now teach you my marvelous secrets by mail.

New Way to Train Horses

Simplest thing now to cure all such bad habits as Kicking, Shying, Biting, Bulking, Bit Tugging, Stall-Pawing, etc. My methods make you master of any horse, and be the champion horseman of your community.

BOOK FREE My amazing book free. Just send your name on a post-money breaking colts and gentling mean horses. My free book will open your eyes. Write for it today—NOW! Address, Prof. Jesse Beery, 455 Main Street, Pleasant Hill, Ohio.

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Have you a stallion or other horse with itchy legs, mane or tail, and you want to cure it, send (to me) for my

MANGE CURE  
Warranted to cure in two applications. Two quarts sent prepaid to any address for \$1.00, with full instructions for using.

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Clydesdales for Sale

One two-year-old filly of first-class size and quality, three entire colts one-year-old, all of first-class size and quality. The above colts are all out of prize-winning mares at the Winter Fair at Guelph. For particulars apply to

GEORGE MILLER, Hillcrest Farm  
R.R. No. 1, Caledonia, Ontario

Want and For Sale

FOSTER HOMES WANTED FOR TWO bright, healthy baby boys; ages one and two years. Apply Children's Aid Society, St. Thomas, Ontario.

FARM HELP WANTED AT ONCE FOR farm at Huntsville, Ont. One experienced dairyman and one farm hand experienced in handling team. Married men preferred. Houses supplied. These are steady positions for right men. Apply at once, giving full particulars. Anglo-Canadian Leather Co., Ltd., Huntsville, Ont.

MAN TO OPERATE TRUCK OR FURNISH team to collect cream and produce. State expected and references. Box 27, Farmer's Advocate, London, Ont.

Keep A-Fightin'.

Have you canker worms or pear slugs? Keep a-fightin'!  
Sawflies, codling moths or plant bugs? Keep a-fightin'!

While you're foolin' roun' they're feedin', While you're cussin' 'em they're breedin', An' good pizen's what you're needin'— Keep a-fightin'!

You will want some Paris green, sir, Keep a-fightin'!  
Insect powder, kerosene, sir, Keep a-fightin'!

Oh, these bugs'll keep you humpin', With their hoppin', skippin', jumpin', What you got to do is—pumpin'— Keep a-fightin'!

Butterflies, an' grubs, an' millers, Keep a-fightin'!  
Beetles, bugs, an' caterpillars, Keep a-fightin'!

Be they plump, or be they flaccid, Hellebore, arsenic acid, Are the things to make 'em placid— Keep a-fightin'!

—M. G. KAIS.

Crop Conditions

The following conditions in Ontario for the month of April 21. It is conditions and counties:

Seeding has been the frequent two, and the laying growth spring wheat above ground counties.

Fall wheat is injured, except it promises to has not done so or less from h although many ported. Alfalfa dition. All the helped by the prevailed.

Orchards have winter injury. already started the season, an predict that us care than usual.

Prince Edward acreage of ne cially of peas, for seed.

Well-finished roads have a Prices for good from 14 to 15 continue at a that "Any sort while good on to \$250." No several choice y the hands of y In Halton a her Holstein cows brought an ave and yearlings a Milk is in f of year, and is has been payi during April. from 60 to 6 creameries. T are being sta County.

Horse raiser prices for thei Victoria report \$300.

Prices for h sentatives, ran cwt.

Two more have been orga all are declar factory.

The Passing o Early in pioneer farmer importer of Ox away in his 77th in the Township Ontario. For Mr. Evans was larger exhibitio carrying away a distributed to sheep.

The influenza short time ago H. Graeme G Bowman, C.A. Conor, Austral experiments M disease, and d moment the wo

"So your hu an automobile? "Not exactly first to become in general, so machine."

"Poor Maud! when she marri "Didn't he h "Oh, yes, ple ten years young



### Crop Conditions and Prices in April.

The following is a report of farm conditions in Ontario, as issued by the Department of Agriculture under date of April 21. It gives an inkling of crop conditions and prices in the various counties:

Seeding has been largely prevented by the frequent rains of the past week or two, and the cool weather has been delaying growth. However, early-sown spring wheat and oats are reported to be above ground in some of the Lake Erie counties.

Fall wheat so far is practically unharmed, except on badly-drained land, and it promises to be a record crop. Clover has not done so well, having suffered more or less from heaving in some localities, although many fine fields are also reported. Alfalfa looks to be in fair condition. All these crops have been much helped by the rains which have recently prevailed.

Orchards have suffered very little from winter injury. Some fruit growers have already started their first spraying for the season, and several Representatives predict that orchards will receive more care than usual this year.

Prince Edward speaks of an increased acreage of nearly all canned crops, especially of peas, which will also be grown for seed.

Well-finished cattle are scarce, and bad roads have also hindered marketing. Prices for good beef animals have ranged from 14 to 15 cents a lb. Dairy cattle continue at a premium. Welland states that "Any sort of a cow will bring \$100 while good ones are ranging from \$200 to \$250." Northumberland reports that several choice young cows have gone into the hands of new breeders at \$500 each. In Halton a herd of pure-bred but untested Holstein cows sold at a recent sale, brought an average of \$320, while calves and yearlings averaged \$111.

Milk is in fair quantity for the time of year, and is in good demand. Oxford has been paying \$2.90 a cwt. for milk during April. Butter-fat has commanded from 60 to 65 cents a lb. in some creameries. Two new milk condensaries are being started in Prince Edward County.

Horse raisers are now getting better prices for their animals. Dufferin and Victoria reporting some sales as high as \$300.

Prices for hogs, according to Representatives, range from \$20.25 to \$21 a cwt.

Two more live-stock shipping clubs have been organized in Wellington, and all are declared to be operating satisfactorily.

### Gossip

#### The Passing of a Pioneer Breeder and Exhibitor.

Early in March, Smith Evans, a pioneer farmer and extensive breeder and importer of Oxford Down sheep passed away in his 77th year at his late residence in the Township of Puslinch, near Guelph, Ontario. For twenty consecutive years Mr. Evans was an exhibitor at all the larger exhibitions, and was successful in carrying away a large share of the ribbons distributed to his particular breed of sheep.

The influenza germ was discovered a short time ago by three scientists, Major H. Graeme Gibson, R.A.M.C.; Major Bowman, C.A.M.C., and Capt. J. I. Conor, Australian A.M.C. During the experiments Major Gibson contracted the disease, and died of it almost at the moment the work was completed.

"So your husband refused to buy you an automobile?"  
"Not exactly refused; he said I ought first to become familiar with machinery in general, so he bought me a sewing machine."

"Poor Maud! She got cruelly deceived when she married that old man."  
"Didn't he have any money?"  
"Oh, yes, plenty of money, but he is ten years younger than he said he was."

# Are You Ready for that Fencing Job?

One of these days when you're through seeding, you'll want to get busy on that bit of fence that should be built.

Have you made your plans to get fencing? Are you sure that you will have the right fence at the right price—and have it when you want it?

We have a stock of Standard Fence ready to ship. The very day your order is received your fence is loaded on the cars. Remember this. Standard Fence can be delivered quick.

There is no reason why you should be "held up" on the delivery of your fencing this spring.

No doubt you want to get the very best price that is going.

Our advice is to study that out NOW.

You know Standard Fence quality. It has fourteen years of honest service back of it, and needs no other recommendation. But have you the price list on Standard Fence? Do you know what you can buy this high-grade fence for?

Whether you are ready or not, you should have the information before you, so that you can get busy in a hurry, when you are ready to start fencing.

## Remember These Four Facts

- (1) We can ship Standard Fence the day you order it.
- (2) Standard Fence is the same high-grade fence that built our reputation.
- (3) Our prices to farmers are rock-bottom figures.
- (4) Our stock of Standard Fence is sufficient to meet any nominal spring demand.

**BE READY. Mail the Coupon**

Let us place in your hands the information you need before you can buy fencing to the best advantage. Write to-day. Use the coupon.

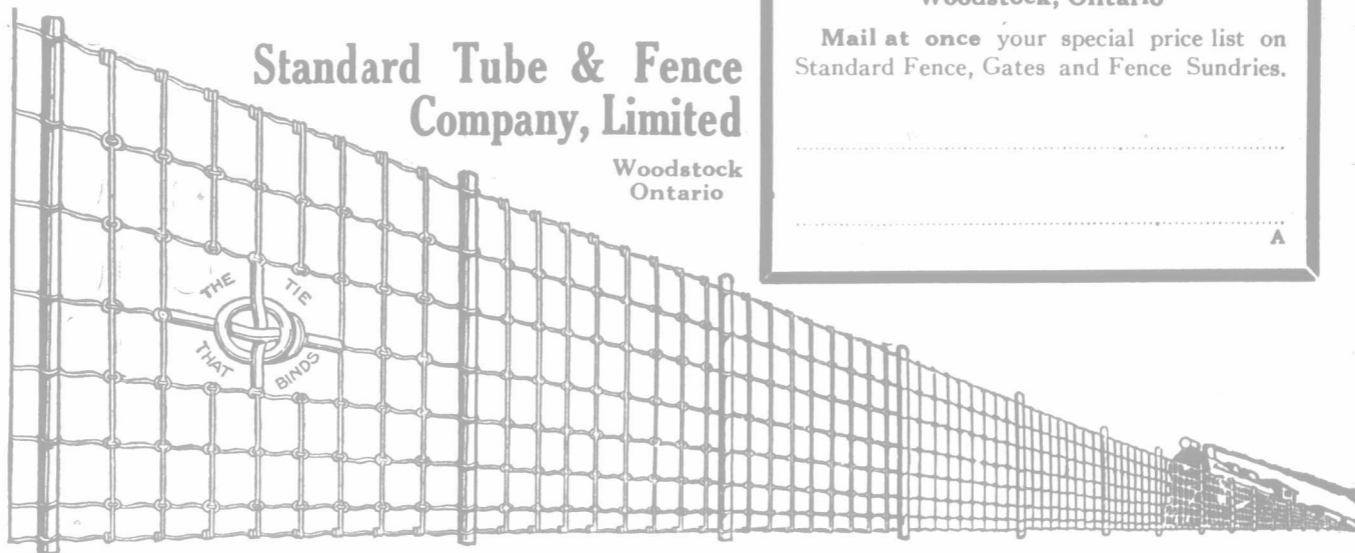
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Mail at once your special price list on Standard Fence, Gates and Fence Sundries.

Standard Tube & Fence Company, Limited

Woodstock Ontario



# STANDARD FENCE



### One Was

One of these horses was a kicking, biting balker, one of the meanest types, and willing animal. Mr. S. L. ...

### Train Horses

Cure all such bad habits as Balking, Bit Tugging, Stall-making you master of any horse. Learn the Beery way by mail ...

### NETS

SPORTING GOODS ... Limited ... TORONTO

### CURE

Two applications. Two any address for \$1.00. ... S., Cobourg, Ontario

### For Sale

of first-class size and one-year-old, all of first-class above colts are all out at the Winter Fair at apply to ... Hillcrest Farm ... Ontario

### For Sale

WANTED FOR TWO boys; ages one and two ... Society, St. Thomas.

### At Once For

One experienced and experienced in hand-preferring. Houses up-positions for right men-ill particulars. Anglo-... Huntsville, Ont.

### Lightin'

forms or pear slugs? ... or plant bugs?

un' they're feedin', ... m they're breedin', ... you're needin'—

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ou humpin', ... opin', jumpin', ... pumpin'—

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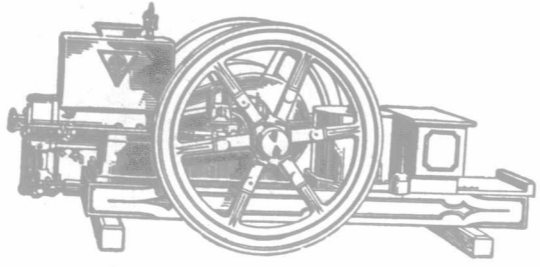
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em placid—

—M. G. KAINS.





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### WHY?

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The Alpha runs right along, day after day, and does not get out of order. It's an engine you never have to "fuss" with. It's always ready.

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The Alpha has no delicate electric batteries or fragile or complicated attachments. It starts and runs on a simple, low-speed magneto guaranteed for the life of the engine.

#### BECAUSE IT'S A FUEL SAVER

The Alpha is most economical in the consumption of fuel, and it uses either gasoline or kerosene.

Go in and see the local Alpha agent. Let him show you the many different uses to which you can put the Alpha—how it will save time and work and make money for you. If you don't know who handles the Alpha in your vicinity, write us for his name.

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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.

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### Practical for every power job on the farm

The White-Allwork Tractor is a wonder of simplicity, sturdiness and power. Well worth a place in "The First Quality Line." Use it for any field job, turning a three-plow furrow (four on some land), seeding or harrowing. Weighs only 4800 lbs. Will work on wet land without undue packing. Turns in a 12-foot radius. 28 H.P. at the belt and 14 H.P. on the drawbar—and plenty of extra power over these ratings, as hundreds of farmers have proved.

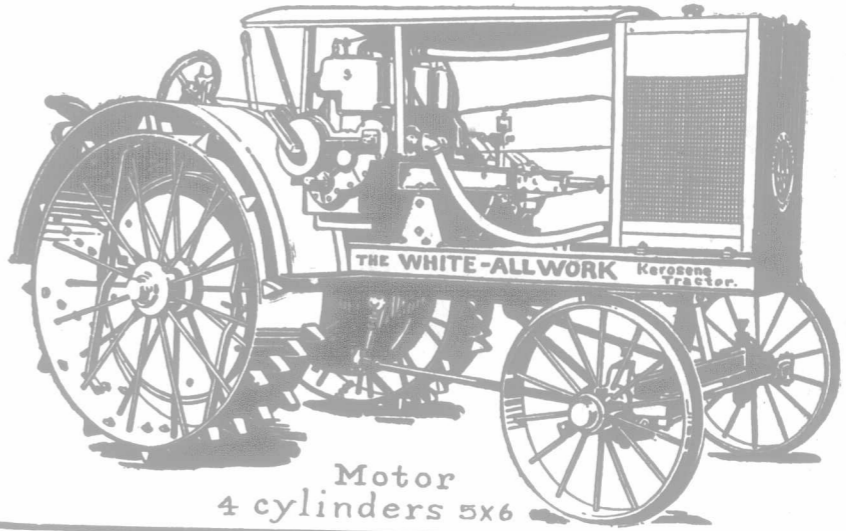
It will run a 16-inch ensilage cutter, or a 28-inch separator, grind feed, crush stone, saw wood, bale hay or straw—anything requiring power.

#### Decide for yourself whether it will pay

Let us tell you what the White-Allwork costs per acre for field work—What it will do on the blower. You can save money with a White-Allwork.

Ask for full information.

The Geo. White & Sons Co., Ltd.,  
Moose Jaw, Sask. LONDON, ONT. Brandon, Man.  
Makers of the famous White Steam Tractors and Threshers  
"THE FIRST QUALITY LINE"



Motor 4 cylinders 5x6

### Questions and Answers. Miscellaneous.

#### Removing Varnish.

What is good to take the varnish off walnut furniture?  
C. W.  
Ans.—It may be found difficult to remove the varnish. You will possibly have to resort to sandpaper to remove it.

#### Fence Posts.

Where can I buy steel fence posts?  
J. W.  
Ans.—Steel fence posts are advertised by several firms in our columns. We might refer you to the issue of April 10.

#### Line Fencing—Trees at Boundary.

On the north side of our farm the back half of the line fence belongs to me, and on the south side the front half belongs to me. On both fences there are quite a lot of elm trees. These trees happen to be on my side of the fence on the north side and on the south side, they happen to be on my neighbor's side. We cut a few trees three years ago on the north side, and our neighbor said "cut everything, I don't want them." On the other side my neighbor and I agreed to cut them down and divide up the wood for the work and give the crop a chance to grow. This year we started to cut some on the north side, where my neighbor has a 5-row barbed wire fence, and the wire on to the trees grown in some three to four inches into the elms all on our side of the fence. We cut four of them at the height of the fence. While cutting the rest he told us not to cut any more of them, and it was just as he liked whether we could cut them on our side of the fence or not. We understood that what was on our side was ours and we could cut it when we wanted to, and that he could do the same.

1. Is barbed wire a lawful line fence?
2. Can I make him take it down?
3. Who is responsible if my cattle or horses get damaged in the same fence?

### Enjoy Limousine Comfort In Your Ford

NO other addition to your Ford will be such a good investment as a set of these guaranteed shock-absorbers. They take up all bumps, jars and jolts, save springs from breaking, ease strains on body and engine, stop rattlings and make your tires last longer—all this besides



#### SHOCK ABSORBERS

"Make Rough Roads Smooth"



Single Arm Style, Set of Four - \$10



Twin Arm Style, Set of Four - \$12

giving you utmost ease and comfort in riding. These are the original cantilever-principle shock-absorbers, protected against imitation by Canadian Patent 172892.

Over 200,000 in use to-day. We take all risk. Remit by Money Order or Postal Note. Use for 30 days. If not satisfied, send them back and we refund your money at once.

Richards-Wilcox Canadian Co. (Limited)  
303 Chelsea Green LONDON ONTARIO

## Cane Feeding Molasses

A wonderful fattening ingredient containing all the elements necessary to finish your stock. Used by the most scientific stock feeders in Canada. Don't delay—write for particulars immediately.

### Dominion Sugar Co., Limited

Head Office: Chatham, Ontario

4. Can I cut the trees on my own side of the fence when I need them? They are hindering the growth of everything we sow for 10 yards on either side of the fence.  
Ontario. SUBSCRIBER.

Ans.—1 and 2. It depends upon local municipal by-law passed pursuant to Sec. 309, Sub-sections 28, 29 and 31, of the Municipal Act. See your township clerk as to same.

3. This neighbor who put up and maintains this barbed wire fence.

4. Yes.

### Co-operative Bull Association.

Throughout the Dominion a number of co-operative bull associations have been organized. Enquiries have come to our office regarding an agreement between the association and caretakers of bull, and also in regard to fees charged. This work comes under R. A. Hamer's Division of the Live-Stock Branch, Ottawa, and information received from him is to the effect that the agreement between the association and caretaker is subject in each case to the approval of the Live-Stock Branch. They reserve the right to insist on a change of caretaker either before or after the bull is placed, in the event of the accommodation provided being unsuitable or if the animal is not receiving proper attention. Mr. Hamer believes that remuneration for the caretaker should be based on a monthly rather than a yearly basis. Each association is expected to charge a service fee based upon which, the number of cows listed to be bred during the season, should be sufficient to pay for the cost of maintaining the bull for a full term. Originally the majority of associations were able to make arrangements with the caretakers at five or six dollars per month. However, the last year or two it has rarely been less than ten dollars per month.



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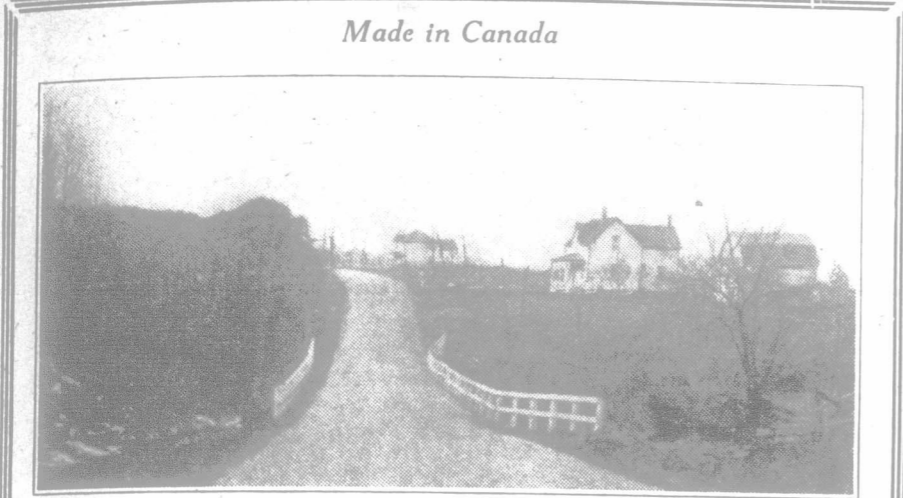
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**Tarvia**  
Preserves Roads  
Prevents Dust-

Queenston and  
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Road, Near  
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coln county,  
Ont. Tarvia-  
Filled Macadam  
1916; "Tarvia-  
B" seal coat  
1917. No main-  
tenance to date.

**Tarvia Roads Help  
To Develop the Dominion—**

THIS road near Vineland, Ontario, "does its bit" for the Dominion every day in the year.

Along this road loads of fruit and farm-products roll easily and swiftly and cheaply to market. It makes a whole strip of agricultural land more efficient. It saves labor, horse-flesh and gasoline.

Frost cannot put it out of commission. Rain torrents cannot wash it away. Automobiles and motor-trucks do it little or no harm for it is bonded with Tarvia for miles, making a tough, frost-proof, water-proof, automobile-proof surface that is always in commission and ready for business.

The addition of the Tarvia to that road when it was resurfaced in 1916, cost very little, yet the Tarvia will suffice to make maintenance small for many years to come.

How much more Canada could be doing and saving if all its rural thoroughfares were as efficient as this one!

Booklet telling about the various Tarvia treatments free on request.

The **Barrett** Company  
LIMITED  
MONTREAL TORONTO WINNIPEG VANCOUVER  
ST. JOHN, N. B. HALIFAX, N. S. SYDNEY, N. S.

**Gossip.**

Volume 96, of the American Shorthorn Herd Book, contains the names of animals numbering from 607001 to 637000. The age of the animal, name of sire and dam, as well as of the breeder and owner are given. This volume contains information of interest to all Shorthorn breeders.

Volume 26 of the Clydesdale Stud Book of Canada is off the press, and a copy has been received at our office. It is a volume containing seven hundred pages. It is neatly bound and printed on high-quality paper. It contains the names of the officers of the Association, and the constitution and by-laws, together with the minutes of past meetings. The breeding of stallions numbering from 18753 to 19878, and of mares from 37744 to 40229 are to be found within its covers. Every breeder of Clydesdales would find a copy of this Stud Book of interest to them.

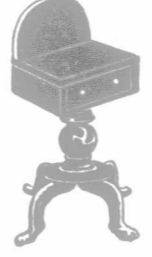
G. de W. Green, Secretary of Canadian Shire Horse Association writes thus: "The motto of the Canadian Shire Horse Association and its parent, the English Shire Horse Society, has always been 'Live and let live.' When, however, advocates of other breeds in advertisements and in other ways seek to disparage Shires, if no reply was made, outsiders would naturally consider that Shire breeding in Great Britain was falling into disrepute, whereas the contrary is the fact. No fewer than 747 new members joined the Shire Horse Society in 1918, and registrations have been more numerous



**"Odd Furniture  
will Fit in"**

Says Mrs. Goodwife:—

"The prized heirloom, that odd but dainty design of former days, can be renewed and made to fit in any modern home with a coat to match of



**FLOGLAZE**

"The Finish that Endures"

**Enamels Lac-Shades**

Floglaze finishes and renews Furniture, Woodwork, Floors, Wickerwork, Verandah Furniture. Wagons, Buggies or Automobiles. Write us for color card, and send 13c in stamps for sample tin of any color Lac-Shade.

THE **IMPERIAL VARNISH & COLOR CO.**  
WINNIPEG TORONTO VANCOUVER  
CANADA

**FIELD TILE**

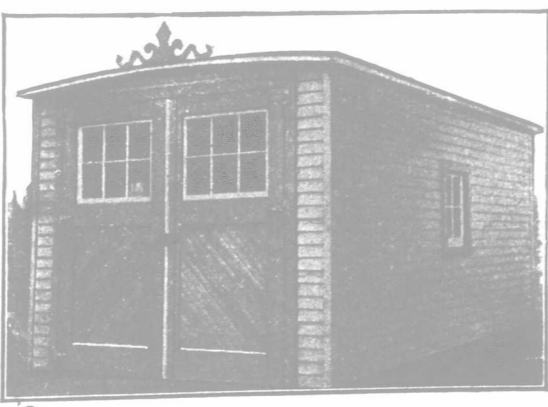
If considering draining your farm or orchard, we can supply all sizes, best quality Hard Burned Clay Tile, and will guarantee prompt shipment. Write for prices.

**NATCO IMPERISHABLE SILO**

Don't consider purchasing a Silo until you let us tell you about the Silo which lasts for generations.

**NATIONAL FIRE PROOFING COMPANY OF CANADA, LIMITED**  
Agriculture Dept., Dominion Bank Bldg. TORONTO

**The Auto-Home Garage**



is just what you need for your car. It is built in sections; any one can erect it. It is painted and glazed complete. Built in four sizes. Place your order early, have a neat warm place for your car in cold weather. Send for full particulars.

**A. COATES & SONS**  
MANUFACTURERS  
BURLINGTON  
ONTARIO  
Box 151

**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**

than in any previous year, with a consequent large addition to the funds.

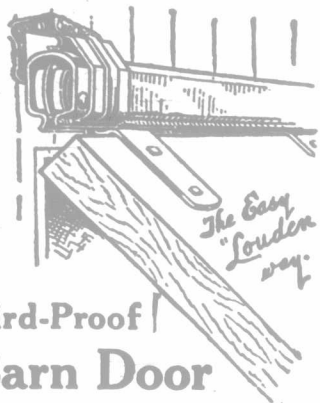
"We have no desire to enter into a controversy, but merely place before the readers of this journal through advertisements a few of the points of excellence of the Shire breed, and leave them by actual experience to judge whether they are correct or not. The first advertisement appears in this issue."

The National Dairy Association of the United States plan on moving their office to 910 South Michigan Avenue, Chicago, where they will occupy Room 222. It is not too early for dairymen, creamerymen, cheese-makers, milk dealers, and manufacturers of dairy utensils to plan for the National Dairy Show on October 6-12. This dairy show gives all those interested in dairying an opportunity to see and learn about the very latest in regard to the dairy industry.

Volume 29 of the Canadian Swine Breeders' Record is off the press, and through the courtesy of R. W. Wade, Secretary of the Association, a copy has been received at this office. It is a volume of upwards of one thousand pages, giving the officers and directors of the Association, constitution and by-laws, and a list of members. It contains the records of Yorkshires numbering from 57418 to 62747; Berkshires numbering from 46962 to 50909; Chester Whites numbering from 16178 to 18091; Tamworths numbering from 11635 to 12405; Hampshires, 1485 to 1672; Poland Chinas from 6190 to 6974, and Duroc Jerseys from 8602 to 11185.



## Get This LOUDEN



### Bird-Proof Barn Door Hanger

and have the barn door hang and run right for all time. This is positively the finest Barn Door Hanger on the market. As its name implies, birds cannot build in the track. The track is hollow with closed ends. No ice or snow in winter or trash in summer can possibly get in to clog it. Runs on two strongly braced roller bearing trolley wheels, always smooth and easy running. Hinged so as to make it flexible and to allow the door to swing outwards and upwards if occasion requires.

#### ASK FOR LOUDEN LINE

If your Hardware man will not supply you, we will direct; mention his name, width of your door. Over 50 years of experience and practical experiments go to make Louden goods efficient and reliable. We make

#### "EVERYTHING FOR THE BARN"

including Cow Stalls, Stanchions, Litter and Feed Carriers, Hay Forks and Slings.

Made in Canada for a Generation  
**LOUDEN MACHINERY CO. OF CANADA, LTD.**

513 CRIMEA ST., GUELPH, ONT.

Branches with complete stocks:  
Martin Ave., Winnipeg, Man.  
Pender St. W., Vancouver, B.C.  
St. John, N.B.

Alberta Dairy Supplies, Ltd.,  
Edmonton, Alta. 51

## SEEDS

We can supply for immediate shipment Home Grown Alfalfa, Red Clover, Alsike, Timothy, Sweet Clover, Ontario Grown Seed Corn, Marquis and Goose Wheat, Bumper King and O.A.C. No. 72 Oats, O.A.C. No. 21 Barley, Peas, Buckwheat, etc. Also Mangel, Turnip Seed and all kinds of Garden Seeds in bulk and packets.

#### FEEDS

We handle Linseed Oil Cake Meal, Cotton Seed Meal, Feeding Molasses (in barrels) Gluten Feed, Sugar Beet Meal, Hominy Feed, Dairy and Hog Feeds, Mill Feeds, etc.

#### ASK FOR PRICES

**CRAMPSEY & KELLEY**  
DOVERCOURT ROAD, TORONTO

#### Sale Dates.

May 14, 1919.—Elias Snyder, Burgessville, Ont.—Holsteins.

May 14, 1919.—Jos. Dorrance & Son, R. 5, Searforth.—Dual-purpose short-horns.

June 12, 1919.—National Ayrshire Consignment Sale, Springfield, Mass.

June 13, 1919.—New England Ayrshire Club consignment sale, Springfield, Mass.

### Questions and Answers. Miscellaneous.

#### Sore Shoulders.

What will cure or prevent horses having sore shoulders?  
E. L.

Ans.—It is well to harden the horses to work previous to their going on the land for spring seeding. It is important that the collar fit properly and that the hames are adjusted so that the draft will come at the right place on the shoulders. It is well to raise the collar so as to air the shoulder several times during the day, and then bathe it with cold salt water at night. Should the shoulder become raw, apply a white lotion consisting of acetate of lead, 1 ounce; sulphate of zinc, 6 drams, and water one pint.

#### Lump Jaw.

Is lump jaw curable? Are animals affected with it allowed to be marketed? How can one tell lump jaw from cancer? Some veterinarians say that meat from animals affected with lump jaw is fit for food.  
C. E. B.

Ans.—Taken in the early stages it is quite possible to cure an animal of lump jaw. The disease may affect the bone, or may be a tumor which is not attached to the bone. A small external tumor may be removed by an operation. The iodide of potassium treatment is also used. It consists in giving from one to three drams daily for a period of from seven to fourteen days. An animal weighing 1,000 lbs. may be given two-dram doses. Treatment should be kept up until there is a loss of appetite and a discharge from the eyes and nostrils. When this occurs, the treatment should be stopped and the animal drenched with one-half pound of Epsom salts, and the dose repeated after three or four days. After an interval of two weeks the treatment should again be repeated if the growth of the tumor has not been stopped. Other than the portions affected, the meat is considered fit for food. A different organism causes cancer. Bacteriologists could determine the organism under a microscope.

### An Eminent Englishman's Ideas Re Agriculture as Applied to Britain.

The following paper was read by Sir Thomas Middleton, K.B.E., C.B., at a meeting of the Agricultural Club on Thursday, 14th November, 1918, and published in the Journal of the Board of Agriculture.

#### Food Production as a War Policy.

Food production is not the same thing as agriculture; thus the policy underlying the food-production movement may not correspond with the policy that should govern ordinary farming activities as carried on before the War.

If I may adapt language much used in another connection, it can be said that before the War the attention of agriculturists was concentrated on an effort to survive. They had come through a 40-years' struggle for existence, and it is not surprising that the farmer's one test of successful farming was the bank book, and that the landlord's golden rule of good husbandry which overshadowed the binding rules of the Victorian era was "Be punctual on rent day and pay in full." That type of farming was best which produced a sufficient return on the capital invested with the least risk and trouble to the farmer himself and to his landlord. The British people looked to the world for its food and to the Navy for the certainty of its supply (and be it remarked, in spite of all that has happened, there was foundation for the confidence). The land of Britain itself was, as it were, but the home farm, a convenient source of milk and vegetables, of good meat for week-ends and holidays, but otherwise of no great account as a contributor to the stability of the estate. My week-end metaphor is more than a figure of speech. I estimate that the food grown in the United Kingdom before the War would have kept the whole population from 6 p.m. on Friday till 10 a.m. on Monday.

COMPARISON OF BRITISH AND GERMAN METHODS.—Our principal enemy in this War took quite a different view of the functions of the agriculturist. There was,

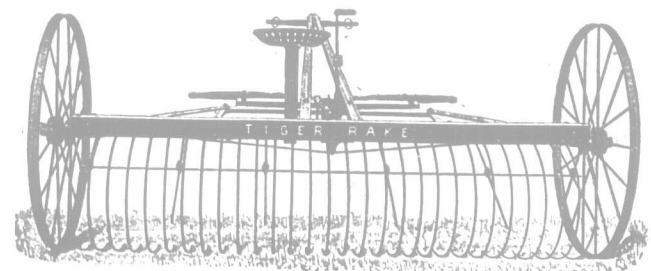


## FROST & WOOD MOWER

It's a sure crop-getter because it has 80 years' Canadian experience behind it.

The Frost & Wood Mower harvests any Hay Crop—tangled or straight, light or heavy. Doesn't need a nice standing crop to show up well, like other Mowers. It is simple and easily managed, yet it's a marvel of efficiency. Very light in draft because of the high-grade steel roller bearings and other highest grade materials we use.

The knives will work even when cutter bar is raised to clear obstructions, saving time and crop. Our "internal drive gear" alone is enough to sell you this famous Mower. High Carbon Steel Cutter Bar can be set at any angle. Anyone who can drive can "run it."



## THE FROST & WOOD RAKE

Built on a strong, heavy, angle-steel frame. Parts are riveted, not bolted, so they cannot shake off. Teeth are special high-grade spring steel, every one hardened and tested. Years of good, solid, repair-free service go with this popular Frost & Wood rake.

Free folder on Frost & Wood Hay Making Machinery gladly sent, or get a copy from our nearest dealer.

**The Frost & Wood Co.**

Limited  
Smith's Falls

Montreal

St. John

Sold in Western Ontario and Western Canada by

**The Cockshutt Plow Co.**

Limited

Brantford, Ontario

### Wear Proof Harness and Axles

**Imperial Eureka Harness Oil**  
—keeps leather strong—full of life and strength. Sinks in and keeps water out. Prevents drying and cracking. Makes harness last longer. Sold in convenient sizes.

**Imperial Eureka Harness Oiler**  
makes the oiling job quicker, more thorough, more easily done.

**Imperial Mica Axle Grease**  
—gives the axle spindle and hub lining the smoothness of glass by filling the minute metal pores with powdered mica. Keeps the metal surfaces separated with a coating of soft mica and grease that prevents wear and makes the load lighter for the horses. Sold in sizes—1 lb. to 20 lbs.

**At Dealers Everywhere**

**IMPERIAL OIL LIMITED**  
Power - Heat - Light - Lubrication  
Branches in all Cities

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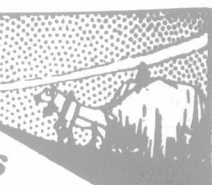


**RAKE**

Parts are riveted,  
are special high-  
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Machinery  
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**Grease**

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ED

**There's no use crying over lost milk**

If you had had an Ideal Green Feed Silo this last winter, your cows would have given 25 per cent more milk and your feed bills would have been 20 per cent less, in the bargain.

From this you can figure how much bigger your profits would have been, with milk at such high prices.

You can't remedy your oversight now, but you can prepare now to get all the milk you are entitled to, next winter.

**NOW is the time to install an IDEAL GREEN FEED SILO**

Summer will soon be here, and the first thing you know another winter will come around and you'll have no silo.

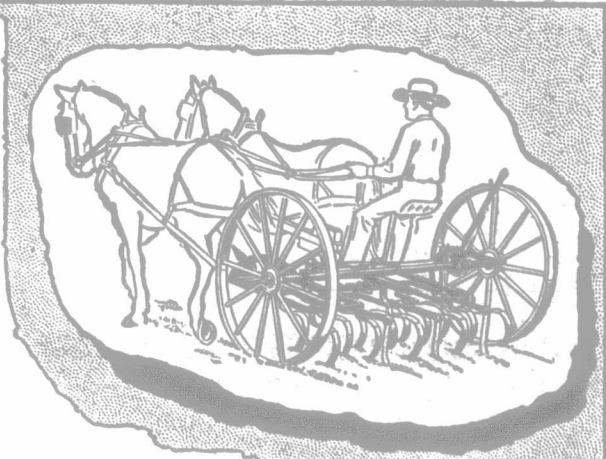
Write today for our catalogue, which not only shows why the Ideal is the best silo you can buy, but contains much valuable information about silos and silage.

**THE DE LAVAL CO., 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 Butterworkers. Catalogue of any of our lines mailed upon request.  
MONTREAL PETERBORO WINNIPEG  
VANCOUVER  
50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER



**Help Your Seed Make a Big Crop**



LARGER crops and a better grade of grain are bound to follow careful cultivation of the seed-bed. Seed in properly cultivated soil always has the advantage under all weather conditions. Give the crop a right start and prepare the seed-bed properly with a

**Peter Hamilton Spring Tooth Cultivator**

Each tooth in the three rows can be set to cultivate exactly to the same depth and stay there under the severest conditions of work. This is only possible with the Peter Hamilton Cultivator and is because the front rows and back rows of teeth are attached to independent sections.

The sections and frame are extraordinarily strong and rigid and the hardest kind of ground is worked up with ease.

The exceedingly strong construction of the Peter Hamilton Spring Tooth Cultivator and the many adjustments that can be made gives a most reliable implement for use on the average farm. It works up the soil quickly to a smooth, mellow seed-bed just in the right condition for good seeding.

For exterminating weeds this cultivator is essential, and for this purpose extra wide steels can be provided to be used in place of the reversible points.

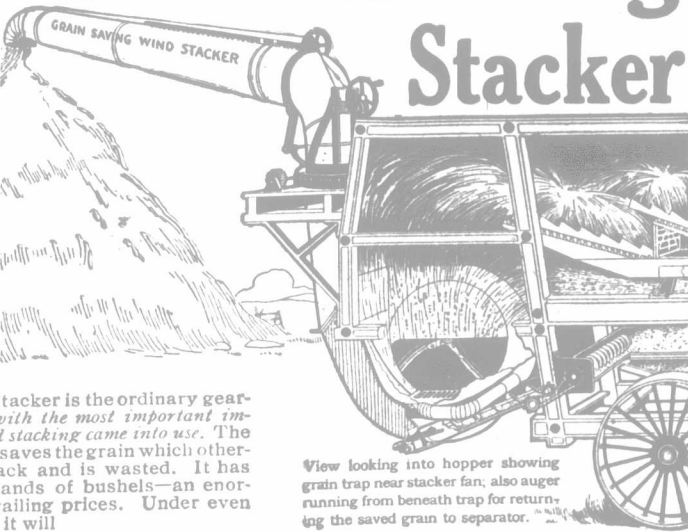
The High wheels, wide tires and perfect balance help to make this cultivator a pleasure to operate.

Write now for further information.

**The Peter Hamilton Co., Ltd.**  
Peterboro, Ontario 45

**The Grain-Saving Stacker**

"I found the following saving with the Grain-Saving Stacker: Wheat, 10 bu. to every 1000 bu. threshed; oats, 25 bu. to the 1000; barley, 15 bu. to the 1000." Report of F. L. Kennard, Agronomist, University of Minnesota.



View looking into hopper showing grain trap near stacker fan, also auger running from beneath trap for returning the saved grain to separator.

The Grain-Saving Stacker is the ordinary gearless wind stacker with the most important improvement since wind stacking came into use. The device in the hopper saves the grain which otherwise goes to the stack and is wasted. It has saved many thousands of bushels—an enormous gain, at prevailing prices. Under even average conditions it will

**Save Enough Grain to Pay the Threshing Bill**  
The manufacturers of America's standard threshing machines named below are prepared to furnish machines equipped with the Grain-Saving Stacker. Full information will be given you by any in this list, many of whom you will recognize as the manufacturers of the best-known tractors and farm implements. Write any of these for descriptive circular.

**LIST OF MANUFACTURERS**

- Canada**  
Robt. Bell Engine & Thresher Co., Ltd., Seaforth, Ont.  
Dominion Thresher Co., Ltd., New Hamburg, Ont.  
Ernst Bros. Co., Ltd., Mt. Forest, Ontario  
John Goodison Thresher Co., Ltd., Sarnia, Ont.  
Hergott Bros., Ltd., Mildmay, Ontario  
MacDonald Thresher Co., Ltd., Hamilton, Ont.  
Sawyer-Massey Co., Ltd., Winnipeg, Man.  
Stewart Sheaf Loader Co., Ltd., Winnipeg, Man.  
Sussex Mfg. Co., Ltd., Sussex, New Brunswick.  
Waterloo Mfg. Co., Ltd., Waterloo, Ont.  
R. Watt Machine Works, Ridgeway, Ont.  
George White & Sons Co., Ltd., London, Ont.
- United States**  
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manent grass, adding temporary to permanent grass the Englishman had 69 against the German's 32 acres. On the other hand, when we come to white straw crops, the Englishman had 19½ acres of corn on his 100-acre farm, the German 46, and while the Englishman grew 1½ acres of potatoes the German grew 10½. But the real significance of these figures cannot be appreciated until we answer this further question—*What is the value of the crops grown?* Now here we must distinguish between the money value and the food value. Our customary method is to value in terms of pounds shillings and pence the yield per acre of land, but we cannot live upon cash, and

**Cropping of Cultivated Land in England and Wales and in Germany.**

Crop	England and Wales Average of 1905-14		Germany, 1913
	Per cent.	Per cent.	
Permanent grass for hay.....	17.55	18.00	
Permanent grass for pasture.....	40.83	3.23	
Rotation grasses and clovers—			
Hay.....	6.40	7.57	
Pasture.....	3.68	7.57	
Green fodders, vetches, maize, etc.,	.58	3.39	
Total grasses, clovers, etc.,	69.04	32.19	
Cereal crops.....	19.50	45.97	
Beans and peas.....	1.66	1.58	
Potatoes.....	1.59	10.44	
Root crops, cabbages, and rape	6.24	4.66	
Gardens, fruit and vineyards.....	.44	2.51	
Miscellaneous Crops	.37	.35	
Fallow.....	1.16	2.30	
Total.....	100.00	100.00	

for nations compelled to feed themselves,

as in this country, much controversy as to the merits of rival policies. The policy which prevailed was thus stated by German economists:—Germany must "keep under the protection of her guns the ground upon which her corn grows and her cattle graze." Translated into practice this meant that before the War, about nine-tenths of the food of Germany was home produced, and that during the War, as the production of her own soils has inevitably fallen off, one guiding principle in her strategy has been to occupy the most productive territory within reach.

As an illustration of the effects on a national scale of an agricultural and a food-production policy, we may, therefore, contrast the systems of Britain and Germany. I may do so conveniently by referring to some figures from a pamphlet I wrote on German Agriculture in 1916.

On each 100 acres of cultivated land before the War—

(1) The British farmer fed from 45 to 50 persons, the German farmer fed from 70 to 75 persons.

(2) The British farmer grew 15 tons of corn, the German farmer grew 33 tons.

(3) The British farmer produced 4 tons of meat, the German farmer produced 4½ tons.

(4) The British farmer produced 17½ tons of milk, the German farmer produced 28 tons.

(5) The British farmer produced a negligible quantity of sugar, the German farmer produced 2¾ tons.

The reason why Germany produced so much more food was not that the yield per acre of her crops was greater—they were in most cases less—but that while most of the land of Britain is under grass, most of the land of Germany is under the plow.

The figures below contrast the cropping of the cultivated land of England and Wales and of Germany before the War.

What were the outstanding features of the English and German farms? On each 100 acres of land it will be seen that whereas the Englishman had 58 acres, the German had only 21 acres of per-



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 Sec.-Treasurer Canadian Shire Horse Association.  
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as the Germans have been for the past four years and as we might have been if Germany had only built a larger fleet of submarines before she declared war, the value must be assessed in some other way. Let us inquire, therefore, how many persons 100 acres of land will feed for a year if put under different crops.

**RELATIVE VALUES OF PASTURE AND ARABLE CULTIVATION.**—First, as regards grass. We have in this country grass of varying quality, from the hill pasture producing 2 or 3 lb. of mutton per annum to the rich grazing pasture on which a bullock may put on 3/4 cwt. of live-weight per acre in the season. If we take very poor lowland pastures worth from 2s. 6d. to 5s. per acre for grazing, it will be found that they yield about 20 lb. of lean meat per annum; a medium pasture, rented at from 15s. to 20s. according to the district, may be expected to produce about 100 lb. of meat, while a first-rate fattening pasture, rented at from 30s. to 40s., may produce as much as 200 lb. per acre per annum. If we take the produce of 100 acres of land of each description and assume that the meat produced is used skilfully in combination with other foods, and if by this method we calculate the total number of persons who could be supported on the produce of 100 acres for one year, we get the following figures:—

From the poor pasture..... 2—3 persons.  
 From the medium pasture.....14—16 "  
 From the rich pasture.....25—40 "

Now how do these figures compare with the produce of tillage land? Let us assume that we have 100 acres growing an average crop of wheat, that the tailings and damaged grain are used in cattle-feeding, and that the balance of the crop after providing seed amounts to about 29 bushels per acre. The produce of 100 acres of this wheat, if milled to 80 per cent. would yield food for 230 persons for a year, and if the milling were reduced to about the pre-war standard it would provide food for 200.

Making similar estimates for average crops of barley and oats, we should find that they provide food for from 160-180 persons per 100 acres.

Potatoes, which, by themselves, would be quite an unsuitable food, but which, in combination with a limited amount of grain and meat, are quite capable of maintaining a population in perfect health, are even more valuable from the standpoint of maintenance of a large population than the cereals. An ordinary 6-ton crop, after allowing 15 cwt. for seed and 10 per cent. for waste, should provide enough to feed 400 persons per 100 acres of land. We may next compare with these figures the value, as human food, of such crops as mangolds and meadow hay. These cannot be used direct but must be employed in producing meat or milk. Assuming that they are used in meat production, a 20-ton mangold crop would produce food for 40 persons per 100 acres and a 30-cwt crop of meadow hay would similarly provide for 14 persons. It will thus be seen that there is a wide range in value between our different farm crops when value is estimated in terms of production of human food.

It is not practicable or at least under ordinary farming conditions it would not be practicable, to grow cereals and potatoes continuously. The crops of our tillage land are arranged in rotations which vary from district to district. I have estimated that if we averaged the rotations practiced in the United Kingdom before the War and used the tillage crops partly for human food, partly for stock-feeding, as was then our custom, the produce of the ploughed land of the country maintained about 84 persons per 100 acres. Similarly, I have estimated that before the War the grass land of the United Kingdom, which was partly used for milk production, partly for meat production, partly for other purposes, such as the maintenance of horses and the growing of hay, was providing food for about 20 persons per 100 acres per annum. In time of war, therefore, when the production of human food is the prime object of the nation, there can be no controversy as to the relative values of tillage and grass land.

**PRODUCTION OF MEAT AS COMPARED WITH WHEAT.**—But in time of war it is not enough to consider the relative number of men who can be fed on a given area of land. We must also have regard to the shipping required for provisions.

**LANDS WANTED FOR... SOLDIER SETTLERS**

**POWERS** have been granted to the Soldier Settlement Board of Canada by Order in Council of the 11th of February, 1919, to purchase land to be re-sold to qualified returned soldiers who desire to make farming their permanent vocation.

To assist soldiers in settling in any suitable district in which they may wish to locate, the Soldier Settlement Board desires to have filed in each of their Provincial Offices a select list of farm lands available for purchase in each district of the Eastern Provinces, with full description and lowest cash prices of the same. Purchases by the Board will be paid for in cash.

The public are informed that this land is for purchase by returned soldiers, and must be of good agricultural quality, and reasonable price, making possible the success of the soldier as a farmer. It should be within seven miles of a railway, open, free from weeds, water supply assured, and of moderate price. In giving particulars, mention nearest market and school. In comparison with the vast supply of vacant lands, the number of farms immediately required will be very limited. Owners, therefore, will kindly assist the Board by offering for the present only land which fills the above requirements.

No commission will be charged or paid. No offers to sell will be binding on the person offering, unless a sale is effected, and no obligation will be on the Board to accept any offer.

If application from a returned soldier be received for the purchase of land, an inspection and valuation of such land may be made by the Board, as soon as free from snow. If approved, negotiations may be entered into for the purchase and sale thereof. An approved list is desired for each suitable district throughout Canada.

All communications concerning land in the Eastern Provinces should be addressed to the Provincial Supervisor of the Soldier Settlement Board for the province in which the land offered for sale is situated, a list of whom is given below:—

<b>ONTARIO:</b> Mr. W. M. Jones, 32 Adelaide St. E., Toronto.	<b>NOVA SCOTIA:</b> Mr. R. H. Congdon, 529 Barrington St., Halifax.
<b>QUEBEC:</b> Lt.-Col. Bruce F. Campbell, Drummond Bldg., Montreal.	<b>PRINCE EDWARD ISLAND:</b> Soldier Settlement Board, Riley Bldg., Charlottetown.
<b>NEW BRUNSWICK:</b> Mr. Wm. Kerr, Post Office Bldg., St. John.	

**SOLDIER SETTLEMENT BOARD, Canada.**

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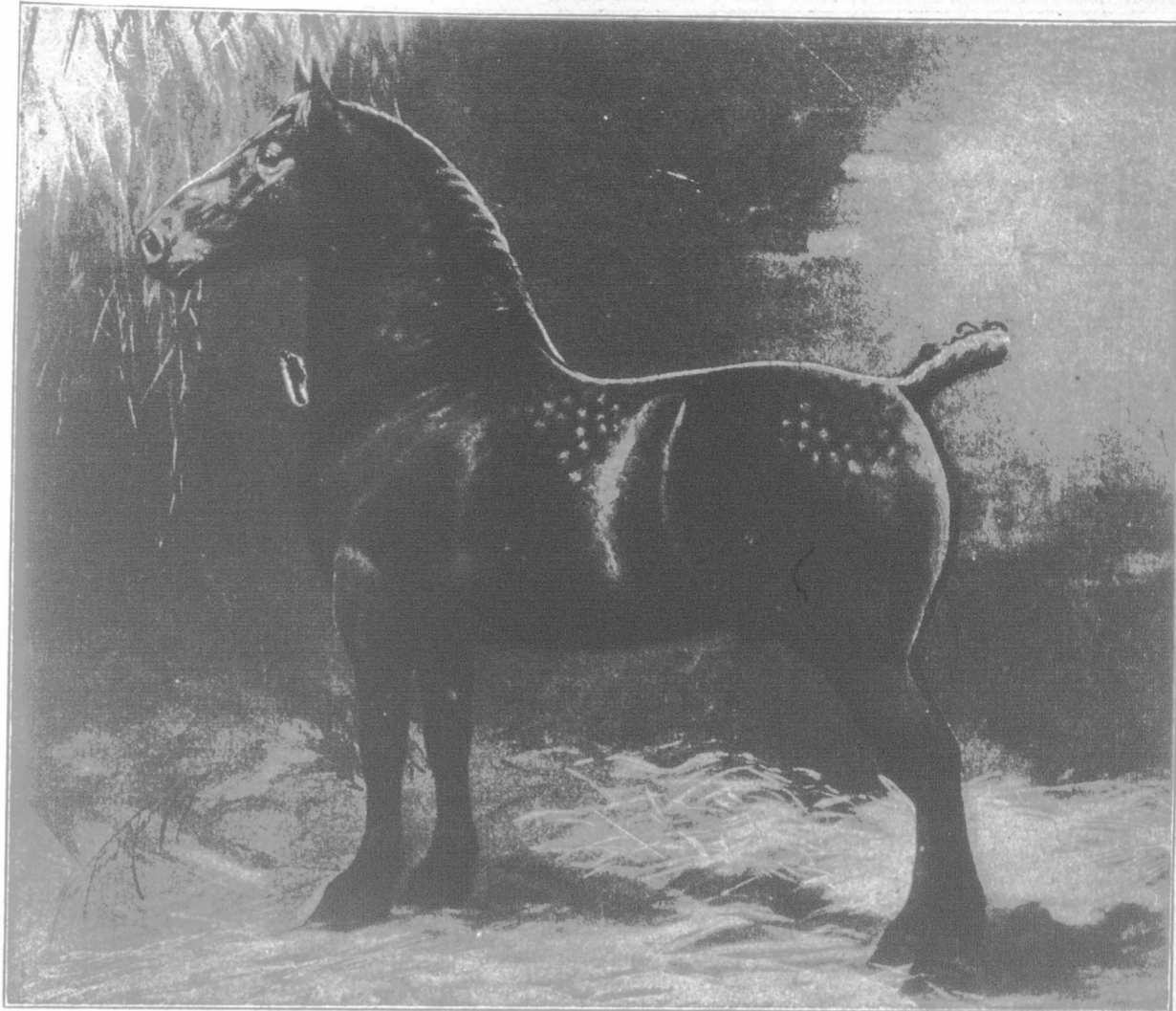


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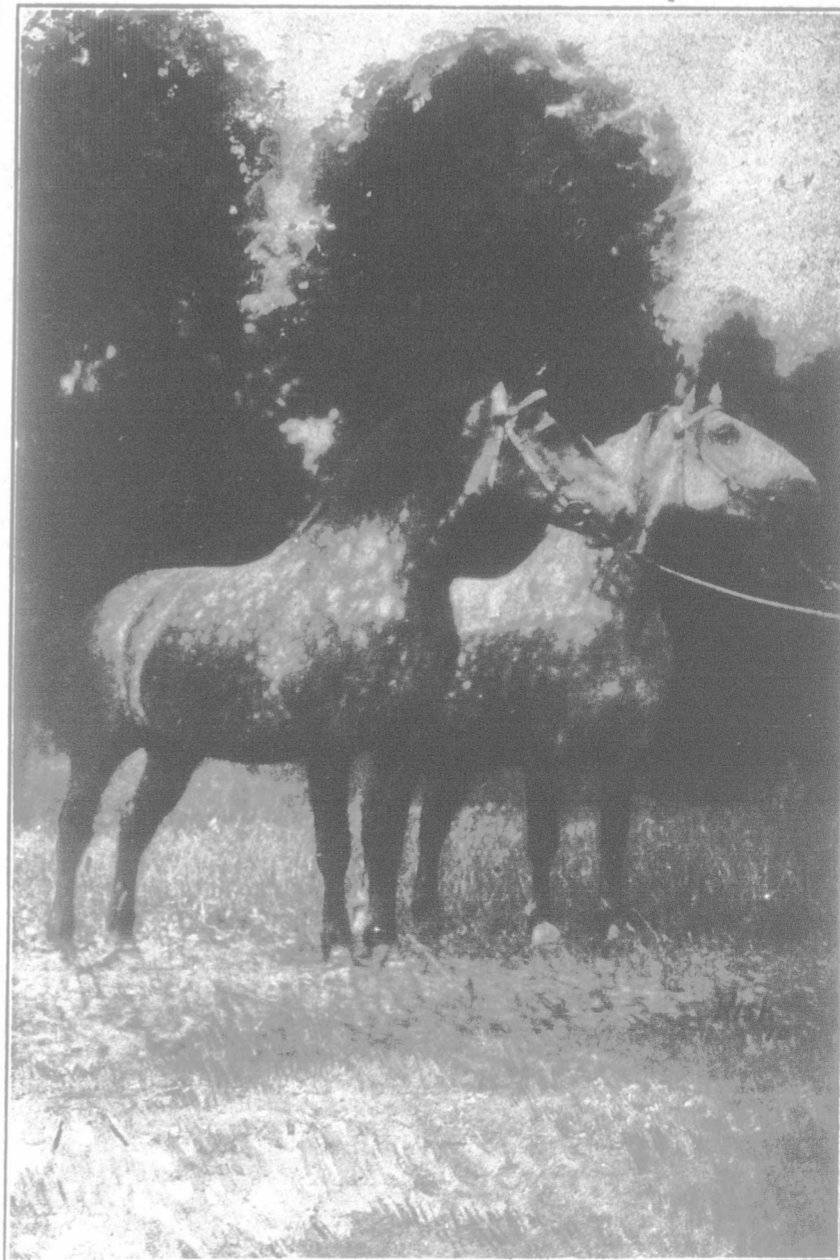
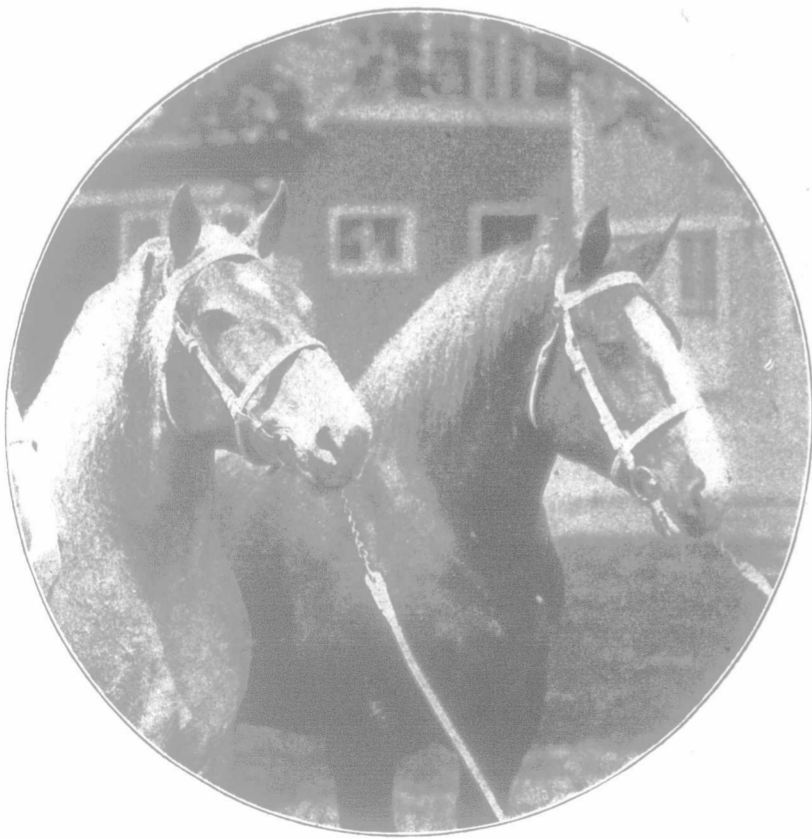
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returned soldiers, and must possible the success of allway, open, free from ing particulars, mention ly of vacant lands, the Owners, therefore, will hich fills the above re-

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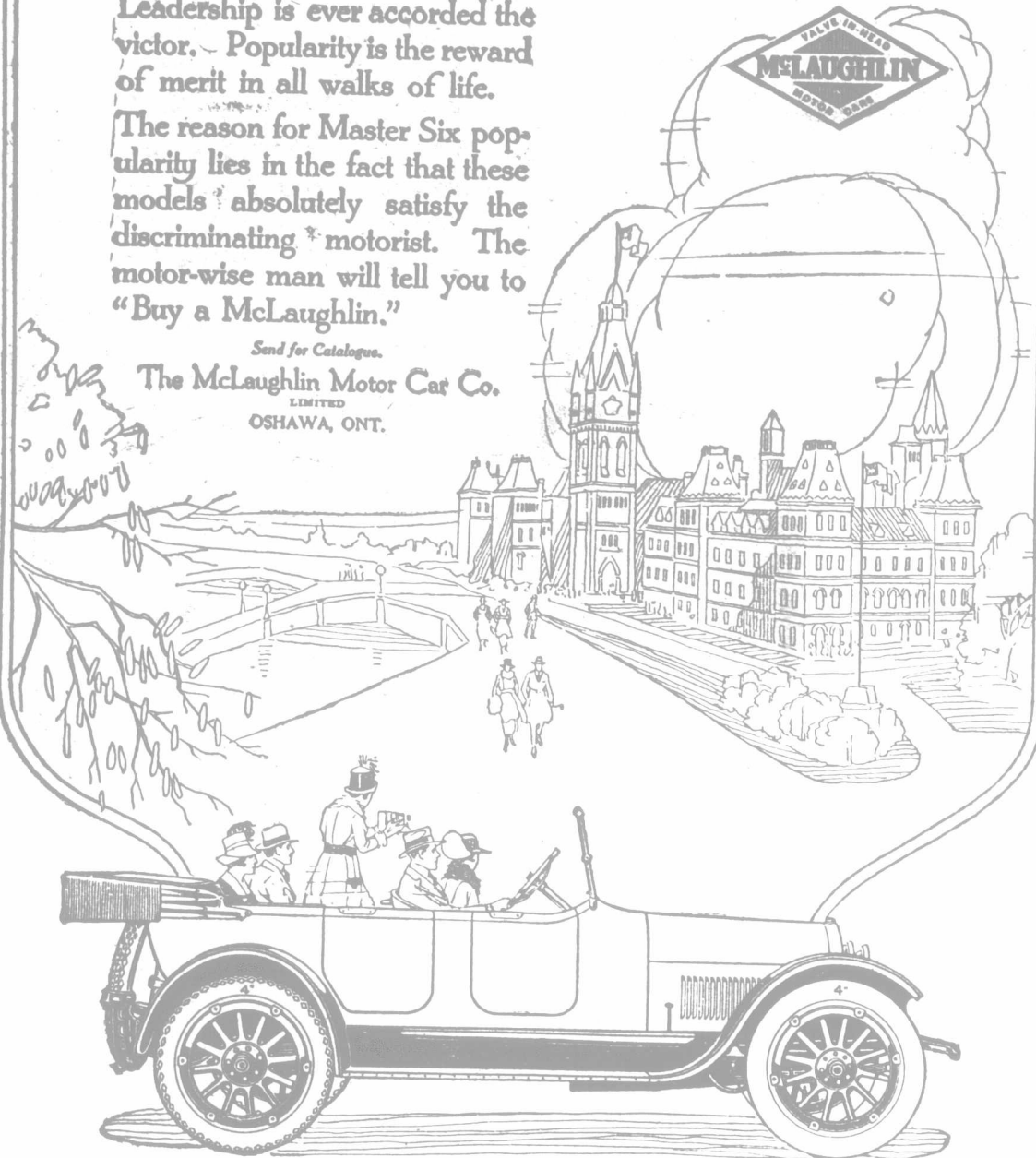
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Aberdeen-Angus steers and Baby Beeves have won over all breeds at these points since the first of the year. Grand championships for single steer went to the "Doddies" at Brandon and Kansas National Fat Stock Shows. Best carlot at Buffalo's first show was a load of "Doddie" heifers. The Boys' and Girls' grand champions at Fort Worth, Oklahoma City and Brandon were all "Doddies." Denver's champion of the grades and crosses was a California Aberdeen-Angus. Write for list of breeders and literature.

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### KNIGHTON LODGE STOCK FARM

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Has EIGHT of the best young bulls that he has owned at one time, good ages and beautifully bred. Also several cows and heifers, some of them with calves at foot, others in calf to 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.

At first sight it would seem that it would be better for us to import wheat than meat, for roughly 2 tons of wheat can be shipped for 1 ton of meat; the first occupies about 50 cubic ft. of shipping space and the second about 100 cubic ft. But we must not stop short with this simple calculation. Clearly, when attempting to estimate whether a nation short of tonnage should attempt to produce wheat or meat we must think in terms of acres as well as in terms of ships.

Let us take a very simple case. Suppose that the population of an island wholly under grass, after providing for their milk supply had 80,000 acres of grazing left for meat production, and that the land was of a quality that produced 1 cwt. of meat per acre per annum, then the total supply of meat would be 4,000 tons. To hold this amount of meat a 10,000-ton steamer would be required. Further, assume that each year the island has to charter a 10,000-ton steamer to bring in its wheat, a ship of this size would carry 8,000 tons of wheat, roughly the quantity that would be grown on 10,000 acres of land. It is clear, therefore, that if tonnage were scarce it would be possible for the island to effect a very large saving by substituting wheat for meat. If it were practicable to break up 10,000 acres and to produce average crops of wheat within a year, seven-eighths of the tonnage could be released for other purposes.

This tonnage consideration was one of the main reasons for breaking up grass land in 1918. It was known that ships would be very scarce, and it was obviously desirable to substitute for grass some crop which would reduce the tonnage demands of the country.

The respective effects of grazing and tillage on the permanent demand for tonnage cannot, of course, be determined by the simple process of estimating how much wheat and how much meat given areas would produce. Wheat is not grown continually even in time of war, and assuming the islanders in our illustration wished to produce wheat for a considerable period of time they must plough at least 20,000 acres of land, and most probably provide shipping space for implements and manures; but it would be safe to conclude that if suitable land for wheat-growing were available, the results of substituting tillage for grazing would be to release in time of need 4 ships out of every 5 required for carrying wheat.

FEEDING OF LIVE STOCK.—There is a further aspect of grazing and tillage farming which is of special interest and importance at the present time, viz., the effects of grazing and tillage on live stock.

There is no branch of British farming so important to the farmer himself as the breeding and rearing of live stock.

Even on arable farms cattle and sheep breeding and feeding are often more profitable than the cultivation of any tillage crop, and the main interest of many of our arable farmers is centred upon live stock. No arable farmer will dispute the fact that grass is the natural food of stock and that stock raising on grass is usually not only an easier and safer business for the farmer, but better for animals themselves than stock raising on tillage crops. Thus in most parts of the country, even where the soil is well suited for tillage, every farm has 40 to 50 per cent. of the land in grass (the chief exceptions are on the chalk). The result is that we do not grow enough winter food for our live stock.

Before the War we were using over 4,000,000 tons of feeding-stuffs in the production of meat; by far the greater part of these feeding-stuffs consisted of the by-products of the flour or oil mill, but a very substantial amount of grain was imported for meat production. The use of the by-products of home industries in stock-feeding is wholly desirable; but the unfortunate effect of their abundance before the War was to lead farmers to spend too largely on imported feeding-stuffs instead of on the products of their own land. We are now suffering the consequences. We have an abundance of summer keep to maintain our flocks and herds and we have roots or straw for winter use, but we are cut off from the feeding-stuffs so necessary for winter fattening, and our live-stock industry may suffer severely before supplies are again available.

Not only so, but whereas we have plenty of cattle and sheep in the country to supply moderate rations of meat, there is a glut of meat at the end of the grass season and there will be a shortage in the

spring. We are using land under tillage.

In this position of the three in 1917, we the limited to keeping much of our place to cover reduced area favorable sea winter food limited in m.

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it would seem that it would be more profitable to import wheat than meat. The first occupies about 100 cubic ft. But we must take into account the cost of shipping space and the cost of the wheat. It is clear, therefore, that the cost of shipping wheat or meat we must take into account as well as in the very simple case. Suppose the cost of shipping wheat is 10¢ per bushel, then the cost of shipping 100 bushels would be 10 dollars. The cost of shipping 100 bushels of meat would be 4,000 tons. The cost of shipping 100 bushels of meat would be 10,000 tons. It is clear, therefore, that the cost of shipping wheat or meat we must take into account as well as in the very simple case. Suppose the cost of shipping wheat is 10¢ per bushel, then the cost of shipping 100 bushels would be 10 dollars. The cost of shipping 100 bushels of meat would be 4,000 tons. The cost of shipping 100 bushels of meat would be 10,000 tons.

spring. We are reaping the consequences of using land for grazing that ought to be under tillage.

In this particular year (1918), because of the threatening position of cereals in 1917, we have even sacrificed a part of the limited area or arable land devoted to keeping stock. Our root crops and much of our temporary grass have given place to corn so that, partly from the reduced area and partly from an unfavorable season, supplies of these natural winter foods of our live stock are very limited in many counties.

Some critics of the Food Production Movement ascribe the present difficult position of live stock to the ploughing out of grass last season. Where the crops on newly-ploughed land have succeeded, as they usually have, the oats and oat straw together are worth much more to the farmer than the hay or grazing lost; where crops have failed, there is, of course, a total loss; but we cannot legitimately criticise the policy of ploughing up grass land on this account. The real fact was that war found us with a system of farming well enough adapted to the conditions of 1913, but wholly unsuitable for the period of struggle on which we embarked in 1914. We continued our system for two years trusting to luck to end the War and to the Admiralty to check submarines. When, at the end of 1916, it was realised that the War would go on, that the American cereal crop was poor, and that the submarine was increasing its toll on our ships, we decided to change our methods. It was as obvious to the Food Production Department a year ago as to their critics to-day that there would be "casualties" in breaking up grass land; but as it was essential that more tillage land must be secured these risks had to be faced.

So long as war conditions continued it was necessary to go on increasing our tillage land as rapidly as the labour at disposal enabled us to make the change. In the autumn of 1918 our own food supply was in a much less precarious state than at the beginning of this year; but had the Armistice not been signed last Monday our herds and flocks would have been in even a worse position during the next six months than they were in before America entered the War; for whereas we could represent to the United States that our own bread was more essential than their soldiers, we could not claim that it would be in the interest of the Allied Nations that American troops should be held up and the War prolonged in order that we might avoid killing off our sheep and cattle.

(Continued next issue.)

**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.

**Veterinary.**

**Severe Burns.**

A month ago a sick mare was put on bran. The bran heated and set fire to the premises. The neighbors succeeded in checking and putting out the fire, but the mare was severely burned and although being treated the wounds are not healing. Did you ever know bran to heat and cause fire?

A. S.

Ans.—The rapidity with which such injuries heal depends upon the severity of the burns. When the tissues are destroyed to a considerable depth it usually requires 6 to 12 months and even then the surface is covered with only an imperfect skin. In the early stages of burns equal parts of lime water and sweet oil or raw linseed oil applied 3 or 4 times daily is considered a specific, and even at this stage the writer prefers this with the addition of a tablespoonful of carbolic acid to a pint of the mixture. Any good antiseptic as a 5 per cent. solution of one of the coal tar antiseptics or carbolic acid is often used, but we prefer the first mentioned. You will have to exercise great patience in this case. We have never known fire to originate from such a cause. It is possible, where the bran was in a large quantity, but we infer from your statement that in this case the quantity was quite small.



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Polarine is especially desirable for automobile and tractor lubrication, where only the best of lubricants will do. Polarine keeps its body—doesn't lose its fluidity—under any service conditions. A poor oil separates, gums, fails to lubricate and often lets friction grind away unchecked.

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**I HAVE FOUR RED BULLS**

Two imported, also a few females for sale.

J. T. GIBSON

DENFIELD, ONT.

**Dual-Purpose Shorthorns**

Herd sire Golden Duke (Imported), dam's official record 12,400 pounds milk and 595 pounds butter-fat. Hand-milked cow's daily records, Lellurias, Lavinias, Strawberrys, Emilys, Etc  
CREDIT GRANGE FARM, Meadowdale, Ont.

**Beach Ridge Shorthorns and Yorkshires**—Shorthorn herd headed by Sylvan Power: 95871, a junior champion on Canadian circuit in 1915, and sire of the G. Champion bullock at Guelph Winter Fair, 1918. Young stock of all ages, both sex, for sale; also young cows with calf at foot or in calf to Sylvan Power. We can supply any want in Yorkshires.

R. D. HUNTER, EXETER, ONTARIO

**Glengow Shorthorns**

—We have a choice offering in young bulls, fit for service. They are all of pure Scotch breeding, and are thick, mellow fellows, bred in the purple

Myrtle, C.P.R.; Brooklin, G.T.R.; Oshawa, C.N.R.

**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 heifer in calf, of such noted strains as Princess Royal, Golden Drop, Broadhooks, Augusta, Miss Ramsden, Whimble, etc. Make your selection early.  
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**Sunnyside Herefords**

Females all ages, choice bull calves, one full brother to sire of 1st prize bulls at Toronto, London and Guelph 1918, 1 year-old bull at Farmer's prices, car of bulls 2 and 3 years old; one 4-year-old bull would exchange for one of equal merit or younger bull. See them, they are priced to sell. Arthur F. O'Neil & Sons, Denfield, Ont., R. No. 2. Phone Grants

**Sunnyside Herefords**

One bull two-years-old; also one bull calf, both good ones and priced right for quick sale. For prices, write or better come and see

Mrs. M. H. O'Neil & Sons  
R.R. No. 4 Denfield, Ontario  
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**FOR SALE**

Young Hereford cows with calves at foot, also bull of Fairfax breeding, at farmer's prices.  
J. Pickett, Freeman, R.R. No. 2, Bronte Station, Ontario.

The Advocate Advts. Pay.



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The Breed For You

Shorthorn steers hold the high-price record for a carload on the open market in Canada. They also hold the high-price record for carlots of heavy steers, yearlings and feeders on the American open markets. They are money makers.

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**Dominion Shorthorn Breeders' Association**

W. A. DRYDEN President Brooklin, Ont. 22	G. E. DAY Secretary Box 235, Guelph, Ont.
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## 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  
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Udders and flanks of milch cows should be clipped every three or four weeks. Clipping makes it easy to clean parts before milking and insures cleaner milk. Largest dairy companies use Stewart No. 1 Ball Bearing Clipping Machines. Suitable for cows or horses without change. If dealer can't supply you send us his name. Write for catalogue.

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## Graham's Shorthorns

Present offering 2 choice bulls sired by the Duke whose dam gave 13,599 lbs. of milk and 474 lbs. of butter fat, R. O. P. test: One dark Red 8 months. The other Roan 13 months. Can also spare a number of females.

Charles Graham, Port Perry, Ont.

## FOR SALE

Two Scotch Shorthorn bulls both low down and thick. One is 18 months Kilblean beauty, from the Marr bred cow Scotch Thistle (imp.), and a seven months English Lady a show proposition. Both are sired by one of the best breeding sons of Right Sort, (imp.).

Arch. McKinnon, R.R. No. 1, Erin, Ontario  
L. D. Phone

## Dual-Purpose Shorthorns

A few young bulls of useful age, will be sold right, also a number of cows and heifers. Can spare a few Dorset yearling ewes and rams.

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

## Questions and Answers. Miscellaneous.

### Guinea Fowl.

Where could I obtain Guinea fowl eggs for hatching? C. P.

Ans.—We do not know of anyone having eggs of this breed of fowl for sale. If you would place an ad. in our "Columns" you would no doubt get in touch with someone having these eggs for sale.

### Cooling Eggs in Incubator.

In a recent article we noticed where it was advisable not to give the eggs any ventilation in the incubator until after the ninth day. Does that mean not to turn the eggs until after that time?

A. D.

Ans.—The reference to ventilation was in regard to the use of the ventilator on the incubator. You have probably noticed several openings that may be closed by a tin slide. These should be closed when starting the incubator, and then gradually opened until they are wide open by the time the chicks are coming out.

### Line Fence.

1. What is the lawful height for a line fence? If the 48 and 50-inch fences offered for sale are placed near the ground to prevent pigs from rooting under, horses and cattle can jump over.

2. How long are the guinea fowl useful for breeding purposes? B. D.

Ans.—1. In regard to the lawful height for a line fence, it will depend upon the township by-law on the subject. Write the clerk of your municipality for information regarding line fences in your district, as the different municipalities set their own standards.

2. So far as we are aware guinea fowl are useful for breeding purposes for four or five years.

### Fertilizer for Roots.

I purpose sowing an acre of mangels and one of turnips on sandy-loam soil. What is the best kind of fertilizer to use? How much should be used per acre and when should such be sown; also, how should it be sown? I manured the ground heavily last year for potatoes and it is in good heart. C. C.

Ans.—Farmyard manure is excellent for putting land for roots in good tilth. A mixture of 130 lbs. nitrate of soda, 400 lbs. acid phosphate, and 120 lbs. muriate of potash is also recommended for the crops above mentioned. Five hundred pounds of this mixture may be scattered over the ground and worked in, or may be sown in the row at the time the seed is sown, by means of a fertilizer attachment on the drill.

### Burning Lime Stone.

1. In some districts farmers build limestone kilns to burn their own lime for building purposes. They dug pits in a bank, with a tunnel in to the bottom. In what way are these pits filled, is there a layer of wood and then a layer of limestone put in, or is the wood all put in the bottom? Do they have to feed the fire with wood through the tunnel. How long would it take to burn a pit of lime 6 feet across and 7 feet deep?

2. What is the measurement of a toise of rough stone? S. G.

Ans.—1. When building a lime pit it is necessary to make an arch in the bottom. This may be done quite easily with the flat limestone. This leaves a fire-place for the wood. The wood is fed in to the kiln through the opening at the bottom. We cannot give the exact time it would take to burn a lime pit of the size mentioned. It will depend on the amount of heat used. The fire should be kept going until there is no hard portion left in the centre of the lump. This might be ascertained by trying a few pieces off the top.

2. It is an old measurement used in France meaning 6.39 English feet.

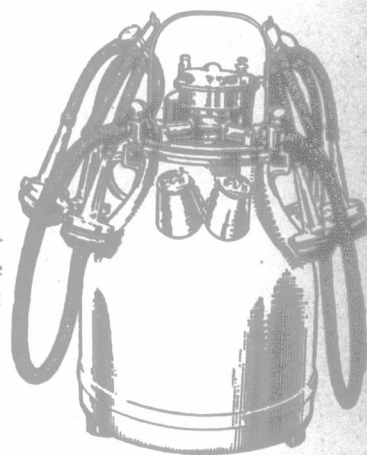
"You there in overalls," shouted the cross-examining lawyer, "how much are you paid for telling untruths?"

"Less than you are," retorted the witness, "or you'd be in overalls too."

## You Pay the Price

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

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## Unreserved Dispersion Sale Dual-Purpose Shorthorns

THIRTY-EIGHT HEAD  
Wednesday, May 14th, 1919

West half of Lot 22, 5th Concession, McKillop, Huron County, two-and-a-half miles north of Seaforth.

In the offering are twenty breeding cows and heifers, twelve calves (six heifers, four bulls, 2 steers), also five fat steers under eighteen months of age. The offering is from such noted sires as Hot Scotch 52696, Royalist 71300, Royal Prince 91567, Huron's Pride 109204, and Royal Bruce 101481. The mature cows are particularly large, typey individuals, and have always been hand-milked. The calves are pail-fed. Everything in the sale was bred on the farm.

TERMS—Six months' credit on bankable paper; four per cent. per annum off for cash. Trains met at Seaforth on day of sale. Write for catalogue to

**JOS. DORRANCE & SON, R.R. 5, Seaforth, Ont.**  
Auctioneer: C. W. ROBINSON

## Harnelbel Shorthorns

Herd headed by Gainford Supreme, one of the best sons of the Great Gainford Marquis.

### FOR SALE

Some choice young cows with calf at foot, also some open heifers and heifers in calf to Gainford Supreme.

We have also for sale some choice young bulls.

Farm one mile from Islington Station.

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**Harry McGee, Proprietor, 61 Forest Hill Rd., Toronto, Ont.**

## Dual-Purpose 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 13,891 pounds of milk. Cows in calf to Dominator priced to sell.

**WELLDWOOD FARM, Farmer's Advocate** London, Ontario

## SPRUCE GLEN FARM SHORTHORNS

Four bulls (thick mellow fellows) from 9 to 13 months—Reds and Roans. Also a few choice heifers and two grade yearling heifers from heavy milkers. Priced to sell.

**JAMES McPHERSON & SONS** DUNDALK, ONTARIO

## GRAND VIEW FARM SHORTHORNS

Herd headed by Lord Rosewood = 121676 = and by Proud Lancer (Imp.). Have a few choice bull calves and heifers left, sired by Escanna Favorites, a son of the famous Right Sort (Imp.).

**W. G. GERRIE** C.P.R. Station on farm. Bell Phone. **BELLWOOD, ONTARIO**

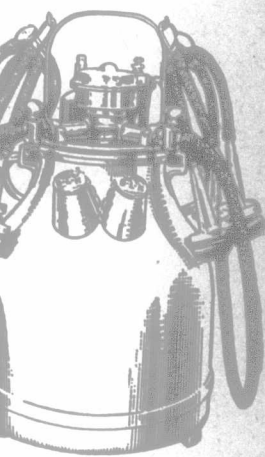
**Plaster Hill Herd of Dual-Purpose Shorthorns**—Established 1861. This herd consists of several large, thick females of good quality, bull of the best English breeding. Could spare a few females.

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## on Sale Shorthorns

1919

Killop, Huron  
of Seaforth.

ives (six heifers, four bulls,  
offering is from such noted  
Huron's Pride 109204, and  
typey individuals, and have  
ing in the sale was bred on

per annum off for cash.  
catalogue to

Seaforth, Ont.

## horns

s of the Great Gainford

open heifers and heifers

Islington, Ont.

L, Toronto, Ont.

## horns

112 pounds of milk in a year.  
of Dominator priced to sell.  
London, Ontario

## ORTHORNS

Also a few choice heifers

OUNDALK, ONTARIO

## ORNS

p.). Have a few choice bull  
ous Right Sort (Imp.).  
BELLWOOD, ONTARIO

1861. This herd consists of  
thick females of good quality,  
record 96115, a massive, good

R. 3, Caledonia, Ont.

### Gossip.

Anyone wishing to secure dual-purpose Shorthorns should keep in mind the sale of Joseph Dorrance & Son, at their farm near Seaforth, Ontario, on Wednesday, May 14. In the offering are a number of big, smooth cows of strong Shorthorn character, and carrying large, well-balanced udders. These cows are sired by Royalist = 71300 =, by Blood Royal Imp. = 68199 =. There are nine young cows by Royal Prince = 91567 = and a few heifers by Royal Cecil. This is a particularly choice offering of Shorthorns. A representative of "The Farmer's Advocate," who called at Mr. Dorrance's farm recently, was surprised at finding such a large number of high-quality, heavy-producing cows in one stable. It is seldom that one will go into a Shorthorn herd where practically every cow in milk has as large udders and as long milk veins, thus giving indication of being a profitable individual at the pail. Practically every animal in the herd has been raised on the farm. The cows have transmitted their milking propensities to their offspring, which is a valuable characteristic. The young things in the herd are also of excellent conformation and give promise of developing into something choice. All the cows in milk are hand-milked, and the returns from the creamery during the past year have indeed been very creditable. Besides the cows in milk there are two bulls of serviceable age, both roan in color, and one is a show proposition. There are four younger bulls that should develop into good herd sires. There are also six heifers that are particularly smooth, sweet youngsters. If in need of Shorthorns with the right type and conformation and which will give a large flow of milk, you cannot afford to miss the sale at Seaforth, on May 14. Write J. Dorrance & Son, Seaforth, for a catalogue and plan on being at the sale.

### Questions and Answers. Miscellaneous.

#### Garget.

I have a five-year-old cow due to freshen in May. She has been dry about a month. The last few weeks she was milking the milk was a little curdled and now there is a lump started in one quarter of the udder. What treatment would you advise?  
G. M.

Ans.—The symptoms indicate that quarter is affected with garget. This may have been brought about by the udder getting a chill, or might have been due to a little carelessness at the time of drying the cow. Rubbing with lard or sweet oil and a little turpentine will help to reduce the swelling. Rubbing with gasoline has been recommended. It is possible that the udder will come all right when the cow freshens.

#### Home-made Cheese.

What is the best way to make cheese for home use?  
J. D.

Ans.—The following is a recipe which has been used: Warm the milk to 80 degrees and per 100 lbs. of milk use a tablespoonful of common rennet or rennet tablets. The rennet should be stirred into the milk thoroughly. Keep the milk warm and in an hour or less the curd will be made. It should be cut with a long-bladed knife into small pieces not more than an inch square. Draw off the whey and leave the curd to harden a little, then dip it out with a strainer into molds 8 inches in diameter and about the same depth. Before the curd is put into the mold a thin cheesecloth should be put in, so that when the cheese is formed into shape it may be slipped out of the mold without breaking. The curd must be pressed in the mold. When it is firm it is set out to ripen. This recipe calls for salting the cheese on the outside, by rubbing it with salt every day for ten days. The salt may be mixed with the curd before it is put in the mold. The following is a recipe for Cottage cheese: "To skim-milk at a temperature of about 75 degrees Fahrenheit add enough buttermilk to coagulate. Set the vessel in hot water and heat to 90 or 95 degrees Fahrenheit. When the curd forms, cut finely and heat to 104 degrees. Let stand for about three-quarters of an hour then dip the curd into a straining cloth and drain. Salt to taste and add 8 ounces of thick cream to 10 lbs. of cheese.

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The fellows who are making the most money are usually the ones who have studied the question of lubrication, as well as other farm problems. A thorough knowledge of lubrication is worth hundreds of dollars per year on every Canadian farm.

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SIRES IN SERVICE;

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(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.

## Spring Valley Shorthorns

—Herd headed by Sea Gem Pride = 96365 =.  
Present offering includes two real herd headers.  
One imported in dam, the other by Sea Gem's  
Pride and from a show cow. A number of other good bulls and a few females. Write for particulars.  
KYLE BROS., R. 1, Drumbo, Ont.  
Telephone and telegraph by Ayr.

## Pure Scotch and Scotch-Topped Shorthorns

We have several choice young bulls of the best of breeding and ready for service. Two are by Rapheal (imp.), one by Right Sort (imp.), one by Sittytown Selection, and several by our present herd sire, Newton Cedric (imp.). Prices right.  
R. M. MITCHELL R. R. No. FREEMAN, ONTARIO

## TWO SHORTHORN BULLS

Sir James = 105445 = 3-yr-old sired by Roan Chief (imp.) = 60865 = Nonpareil King = 124102 = 15 mos. sired by King = 98472 = he by Dorothys King (imp.). Their dam Nonpareil Gem 15th 110110 an excellent cow and a grand milker. Messrs. Jas. McConachie & Sons, Hagersville, R.R. No. 3, Ontario. Phone 70.22 Caledonia.

## Walnut Grove Scotch Shorthorns

Established 1840. Gainford Eclipse 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 stock. 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.

## Choice Shorthorn Females

Mysies, Rosemarys, Clementinas, Missie, Miss Ramsdens, Cruickshank, Fragrance, etc., all good pedigrees and all good breeding cattle in full of good bull calves. Also a few bull calves. Correspondence solicited.  
JAS. K. CAMPBELL & SONS, Palmerton, Ontario

## ANTICIPATION will be greater than REALIZATION

if you are not using a  
**Good Shorthorn Bull**

I have a few imported ones ready for service, as well as several of my own breeding. The price is not high.

**WILL A. DRYDEN**  
Maple Shade Farm Brooklin, Ont.

## SPRUCEDALE

## Shorthorns and Berkshires

Herd headed by Sprucedale Butterfly, whose dam, Orma of Northlynd 105359 (owned in herd), has a 4-year-old R. O. Period of 10,463 lbs. milk, 390 lbs. fat. Shorthorns and Berkshires of different ages and sex for sale. Inspection invited.

Frank Teasdale, Concord, Ont.

## 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, Ontario R. R. No. 5

**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





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### Economic Reconstruction in Canada.

BY W. W. SWANSON, DEPARTMENT OF ECONOMICS, UNIVERSITY OF SASKATCHEWAN.

The meaning of the Great War is now sufficiently clear to all who have given serious thought to the matter. It was, indeed, a terrible calamity to the world, but it was not entirely and wholly evil. Consider the frightful tyranny of the Czar's regime in Russia with its brutal bureaucracy and drunken democracy. Recall the reign of Abdul the Damned in Turkey when tens of thousands of Christians were put to the sword. Think of Leopold of Belgium, who had his emissaries torture and flay and slay the natives on the Congo, that red rubber might bring millions into his coffers. Call to mind the brutality of the Prussian Junkers; the soulless and sordid scramble of the Great Powers for markets and military prestige while the common people groaned under the burdens of taxation and the iniquities of conscription. Think of the iniquities of a civilization that tolerated the Putumayo atrocities and the oppression of the unprotected natives of Brazil and Peru, that industry might wax ever greater in the United Kingdom, the most enlightened nation in the world. And recall, finally, that effete American political philosophy which had such a hold upon the Republic that its citizens would openly boast that they were not their brothers' keeper—or, to put it in more familiar terms, that the United States had no concern with the affairs of Europe or of the other nations of the world. Each country was armed to the teeth; each proclaimed itself Christian or highly moral in its ambitions and program; and all gave themselves over to the struggle for wealth, prestige and power. Such conditions could not endure.

The jungle that impeded the progress of man has been swept by a ravaging fire. So terrible has been the destruction that peoples of the world are still dazed with the overwhelming sense of personal and national loss. The calamity has touched almost every home. Relatively few have escaped personal bereavement, and not one will escape the burden of taxation and debt that will encumber the entire world for decades to come. The Great War, surveying these aspects alone, appears as a great futility and an irremediable disaster. So, on a lesser scale and in smaller measure, appeared the destruction of London two hundred and fifty years ago. To those of that day the fire that laid London low in ashes was an appalling calamity. To their descendants it was an undisguised blessing. It consumed slums and wretched hovels and wiped out narrow lanes and crooked streets—it prepared the ground for something nobler and more beautiful. The Great War finds its chief, if not sole justification, in the fact that it has obliterated and utterly destroyed, tyrannies and anachronisms and oppressions that otherwise the common people would have been subjected to for generations to come. It has cleared the jungle for the march of progress and of civilization. To those who have given sufficient thought to the problem it is clear enough that little or no cultural advance can be achieved for the people as a whole without a corresponding advance, first of all, in the control of the material things of life. The old saying that "Poverty is a good school of success" is the basest of all falsehoods. No progress can be made by the individual or the nation apart from a greater control of wealth. In last analysis, types of governments and the character of politics and the broadening of education and cultural opportunities depend upon, and are controlled by, the standard of living which the people have attained. Economic freedom, the rising above the mere business of living to live a life, is fundamental in the deepening of human liberty. Thus it is that the war must alter profoundly the economic situation for men and nations if any real advance is to be made. How will all this affect agriculture and those who obtain a living from the soil—mankind's oldest and noblest calling?



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A fine animal on back.  
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**Reconstruction Canada.**

NSON, DEPARTMENT OF S, UNIVERSITY OF ATCHEWAN.

the Great War is now all who have given to the matter. It was, calamity to the world, entirely and wholly evil, thoughtful tyranny of the Russia with its brutal drunken democracy. of Abdul the Damned in ens of thousands of ut to the sword. Think Belgium, who had his and flay and slay the ongo, that red rubber ns into his coffers. Call tality of the Prussian ess and sordid scramble wners for markets and hile the common people e burdens of taxation of conscription. Think of a civilization that may atrocities and the e unprotected natives a, that industry might e the United Kingdom, ed nation in the world. that effete American which had such a hold ic that its citizens st that they were not per—or, to put it in ms, that the United ern with the affairs of other nations of the try was armed to the imed itself Christian in its ambitions and ve themselves over to wealth, prestige and tions could not endure. impeded the progress ept by a ravaging fire. a the destruction that d are still dazed with ense of personal and calamity has touched

Relatively few have ereavement, and not e burden of taxation encumber the entire o come. The Great hese aspects alone, futility and an ir. So, on a lesser r measure, appeared ondon two hundred To those of that day ondon low in ashes calamity. To their n undisguised bless- slums and wretched t narrow lanes and epared the ground and more beautiful. its chief, if not sole fact that it has ob- destroyed, tyrannies and oppressions that mon people would to for generations are the jungle for s and of civilization. ve given sufficient m it is clear enough al advance can be e as a whole without ce, first of all, in the rial things of life. 'Poverty is a good e the basest of all ess can be made by nation apart from wealth. In last ernments and the nd the broadening tural opportunities controlled by, the ch the people have freedom, the rising ss of living to live in the deepening us it is that the ndly the economic nations if any real de. How will all and those who ob- e soil—mankind's ing?

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**FOR SALE!**

**Sir Walter Gerben 35801**  
Vol. 22  
Calved Feb. 13, 1918.

A fine animal, well marked, straight on back.  
Sire Segis Walker Burkeyje, No. 23769.  
Dam Flora Gerben Dekoe No. 25075 who was in yearly test 1918. Record not yet completed, gave 19,541 lbs. milk in ten months. Gave 610 lbs. milk in 7 days = 21.14 lbs. butter.  
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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.

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When writing please mention "Advocate."

We are not among those who seek to create a feeling of class consciousness and hostility among the various groups which comprise the Canadian people. We are persuaded that there is, and must be, a fundamental unity among the entire people if Canada is ever to get anywhere on the road to economic and political success. At the same time it must be frankly stated that farmers and farming as such have received altogether too little consideration in the past, not only at Ottawa among politicians, but among publicists and leaders everywhere. When one recalls that five out of every nine Canadians derive their living from the land, it must be admitted that this is not fair dealing. The entire economic machinery of the Dominion needs overhauling, part of it "scrapped" and part of it perfected, so that it may adequately serve agriculture as well as the other business interests of the nation.

In the Commons a few weeks since, J. A. Maharg remarked that the Government should, among other things, take immediate steps to see that the products of Canadian farms find a fair market abroad, now and for the future. It will be recalled that the Federal Government, a short time since, advanced a credit out of the funds of the Dominion Treasury for the financing of Roumania, on the understanding that the money would be used by Roumania for the purchase of agricultural products in this country. The United States has appropriated one billion dollars to support the price of wheat and find a market for it in Europe, where Herbert Hoover, among other duties, is acting as an advance sales agent for the American Government. It was distinctly on the understanding that part of the proceeds of the last Victory Loan would be used for the financing of Canadian agriculture, that farmers were asked to subscribe for it. To be sure, apart from personal-interest appeals, the farmers of Canada would have given to the support of the Victory Loan—which they did, and did magnificently. Considering the crop situation in the prairie provinces, the response of the farmers to the loan was little short of marvellous. Nevertheless, a promise is a promise and aside altogether from the fact that it is good business to market the wheat and other products of the farm at fair and remunerative prices, the farmers must not permit the Government to escape its bounden duty in this respect.

It may be objected in certain quarters that this throws upon public finance a duty and responsibility assumed only by private finance before the war. That is perfectly true and must be admitted. Nevertheless, the Great War has wrought profound changes here as elsewhere. The United Kingdom alone has advanced to its Allies not less than \$9,000,000,000 for the support of their economic life, as it was recognized that trade and commerce, the production of the factories and the farms, were just as essential to the winning of the war as the placing of armies on the field of battle. To achieve the same objects the United States has loaned to its "associates" approximately \$10,000,000,000. Are these practices to come to a close with the signing of peace? Will public finance give way to the scramble and chaos of private finance as in ante-war days? It is unthinkable. Between them the great Anglo-Saxon nations have almost twenty billions of dollars loaned to foreign nations; and from the selfish standpoint alone, it can never be a matter of indifference to them whether or not the trade and industry of their creditors fall into stagnation and decay. If that be true of national loans made necessary to win the war, how much more important it should be to supply national credits to conserve the fruits of victory! Depression in industry and agricultural losses would quickly lose Canada and the United States all the gains they have made in material well-being. Not only so, it is of vital importance that agriculture be made and kept prosperous if the Dominion is to meet its financial obligations occasioned by the war. If the farmers become discouraged or discover that they cannot cover their costs of production and make a fair profit, it will not take long to dislocate industry in this country from ocean to ocean.

The *Monetary Times*, of Toronto, a month or two ago raised this very question although it did not attempt to give it an answer. In an editorial article it pointed out that Canada had shown capacity to

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I have two young bulls; one a four-months show calf who is the only bull in the world to carry the combined blood of Rollo Mercena De Kol (the new 51.93 lb. cow) and May Echo Sylvia (the world's greatest milk producer). The eight nearest dams of this youngster average 31 lbs. of butter in 7 days and four of these are under full age. I also have a three months bull from a 28.67 lb. 3-year-old sister of the new 51.93 lb. cow. He too is a choice well made youngster and has an average of 30.87 lbs. for his 7 nearest dams. Write us about these and others of similar breeding or better still come and inspect them and at the same time see the world's first and only 51-lb. cow.

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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. Write to-day.

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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 Lestrage. Apply to Superintendent.

**Premier Echo Sylvia DeKol No. 38053**

814.8 lbs. of milk with 33.96 lbs. of butter in 7 days, 120.8 lbs. in one day is the average for the dam, sire's dam and sire's sister of this young bull that I am offering for immediate sale. He was born Nov. 17, 1918 and is a very fine individual. More black than white.

Write at once for extending pedigree and price.

**H. H. BAILEY, Manager, OAK PARK STOCK FARM PARIS, ONTARIO, CANADA**

**At Service—Son of Ormsby Jane King**  
ORMSBY JANE HENGERVELD BURKE

The services of our 18 months herd sire are now open for a limited number of approved cows—at a moderate price. Individually, he is one of the strongest young sires of the breed and his sire Ormsby Jane King is a son of Ormsby Jane Segis Aaggie (the great white heifer) 46.33 lbs. of butter and 879.40 lbs. of milk in 7 days. The dam of this great young sire, Dolly Hengerveld Korndyke is a 21.75 lb. two-year-old daughter of Earl Burke Korndyke and he again is a 31.30 lb. grandson of Pontiac Korndyke. Write for particulars. Ask us also about our herds.

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**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 33.28 lbs. of butter in 7 days. Several of them must go quick to make room.

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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.

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**Manor Farm Holstein-Friesians**

If it's a herd sire you want, write me. I have sons of both my senior and junior sires, King Segis Pontiac Posch and King Korndyke Sadie Keyes. All from good record dams. Choice bull calves at present to offer—average for two nearest dams, up to 34.71 lbs. butter to seven days. Correspondence solicited. Visitors welcome.

**GORDON S. GOODERHAM, Clarkson, Ont.**  
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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.**  
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**YOU! MR HOLSTEIN BREEDER**

How would a 16 months son of Duchess Aaggie Wayne do for your next herd sire? She is a 26.96 lb. 4-year-old and a sister to Calamity Snow Mechthilde, the Canadian champion three-year-old R.O.P. cow who has just completed another R.O.P. record of over 25,000 lbs. This youngster is a great individual and sired by Canary Hartog. We also have others younger, as well as females.

**Ingersoll, Ontario**  
Walburn Rivers & Sons Pioneer Farm, R.R. No. 2.

Special offering: One bull fit for service, a fine individual. Dam, a daughter of King Lyons Hengerveld, whose five nearest dams average 31.31 lbs. butter in 7 days. Sire a son of King Lyons Colantha, his six nearest dams average 30.10 lbs. butter. We also have others younger. Write at once for prices, or better come and see them. Priced to sell.

**JACOB MOGK & SON, R.R. 1, TAVISTOCK, ONTARIO**

**Holstein Bulls and Females—Only four bulls left—of serviceable age. All are from good dams, and their individuality should sell them. Two are sired by May Echo Prince, 3/4 brother to May Echo Sylvia. Can also spare a few nice straight heifers and young cows bred to our 33-lb. sire Gypsy Pontiac Coralcoipa. Prices right.**

**JOS. PEEL, Port Perry, Ont.**

**6 BULLS BY KING SEGIS PONTIAC DUPLICATE**  
Brother to the \$50,000 bull. Three of these are ready for service and all are show calves. Write us also for females. We are pricing a number of heifers, bred to our own herd sire, Sylvius Walker Raymondale, a grandson of the great May Echo Sylvia. We now have bull calves a few months old by this sire. Let us know your wants. **R. W. WALKER & SONS, Manchester Station, G. T. R. Port Perry, Ont., R. R. No. 4.**

**Elderslie Farm Holstein-Friesians**

Special offering—One bull fit for service, fine individual, dam gave 195.26 lbs. milk, 782.50 lbs. butter for year. He is a son of Judge Hengerveld De Kol sire, who is a 32.92 lb. grand son of De Kol 2nd, Butter Boy. We have others younger equally as well bred. Write at once for prices or better come and see them. (Take Kingston Rd. cars from Toronto, Stop 47, A. MUIR, Scarboro P. O., Ont.)



finance its own requirements to an extent that no one would have credited before the war. It suggested the consideration of the problem, in view of this financial strength, of nationally providing for essential and basic industries by using methods approximating those adopted during the past four years for the winning of the war. We may add that, in our judgment, it is absurd to permit any basic Canadian industry, least of all agriculture, to decline for want of the capital to finance the marketing of its products or to provide the funds necessary to give operators the tools and machinery of production. If it be said that all this is new, revolutionary and untried, let us remember that only those governments that have the courage to dare and try new things will lead their peoples successfully in the future. The economic, no less than the political world can never be again what it was in the days preceding the outbreak of war.

Already Secretary Wilson, of the United States Department of Labor, asserts that more than 700,000 men are out of work and that the situation is becoming serious, if not acute. In both the Eastern United States and Canada many men are unemployed. Now, it is obvious that the greatest asset of a nation is its labor power. A country may have boundless resources, but without the application of intelligently directed labor these are worthless for all practical purposes. And unless labor is employed at decent wages the farmer will suffer, inasmuch as his home market for dairy products and the like will be curtailed or destroyed. True, both in the United States and Canada there is a Federal Labor Bureau, which essays to discover jobs for men and men for jobs. But while such a bureau may reduce the friction and help to adjust labor to industry, it cannot create work. Nor in restoring normal economic conditions in Canada, can the wishbone take the place of the backbone. That demands something more than good intentions.

The problem, aside from discovering suitable markets, discussed above, resolves itself into several elementary but fundamental considerations. In a comprehensive survey of the situation the first thing to decide is: Have we a

sufficient economic equipment in the Dominion, enough of materials and lands, of tools, machinery and fluid capital to employ all men and women able and anxious to work? The answer is in the affirmative. Indeed, the all too common criticism directed against Canadians is that they are over-equipped with railroads, lands, machinery and factories, but that they fail to utilize them to complete capacity. In part that indictment is true. As discussed in some detail already, also there can be no doubt that the country has command of sufficient capital and credit to finance its industrial and agricultural operations. It is a sardonic commentary upon competitive industry as it has functioned in the past that it comes to a halt at periodic intervals because of the fear of "over-production." There can be no such thing as over-production until all the needs and desires of men in society are completely satisfied. There often is, and may be, however, an economic condition that is characterized by relative over-production or maladjustment in industry. It would be futile, for example, to speak of over-production of foodstuffs to-day, with half the population of the world famished. But there might very well be, and often is, a superfluity of articles of luxury, in the manufacturing of which labor and capital are withdrawn from more useful industries, thus making necessary goods scarcer and dearer.

Whether Canada has the necessary materials, tools, capital and supplies to employ all its labor and find markets for manufactured and agricultural goods is one thing, but whether we have the intelligence and skill to direct and coordinate this work is quite another. During the war, in both the United Kingdom and the United States, the economic life of the nation was controlled almost entirely for the production of war materials and food supplies. Careful calculations were made of the supplies required, and a steady market at good prices was assured. The results achieved amazed the world. In Great Britain much of that directing and co-ordinating machinery has been retained. And more: The Government has called into being a great industrial parliament, representing

all classes of the State. Railway workers refused to co-operate if they could not be recognized as being recognized that the old law take-care-of-itself do. There must be the common good and reasonable produced by the United States, of all the social material thrown upon the private employer regarding the cost of raw industry is slow ment growing. anteed markets rial to make for the process may not be cheaper than widespread factories and th cultural producti

If Canadian i were certain of Federal financing plain that suffic forthcoming to of the country, expenses and me ments. Of cours that the Govern miracles, or eve much less smot But the last fou demonstrated th sible through co supervision that individual per'orr should be made o industries financ this way the h available for the a products, and t of which taxes a terest and divid all it is of vital marketing machi products of the fa and to lend the fa financial support may require.

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We are offering at reduced prices, COWS, YEARLING AND TWO-YEAR-OLD HEIFERS, sired by our noted herd bulls, Olga 4th's Oxford—1746—, whose dam gave under test over 16,000 lbs. milk in one year and over 1,000 lbs. butter; and Imp. Golden Prince—2935—, sired by the Great Island bull, Golden Maid's Prince 3027, H.C., P.S.

Young bulls of the above breeding. Also a few imported cows. Prices reasonable. Inspection invited. Come and make your own selection from a large herd.

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**JUST JERSEYS**  
*Baldwin's*  
REGISTERED  
COATICOOK, QUE.

**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.

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We are offering a half dozen young bulls of serviceable age at prices that should clear them fast to make room for our coming importation. These bulls are all from R.O.P. dams and sired by our Bright Prince and Raleigh herd sires.

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Herd headed by imported Champion Ronner, 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

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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.

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**"Royal Purple" Calf Meal**

Any Farmer can increase his income by selecting one or two calves each season to make baby beef



Mr. Farmer, if not yourself, give your boy a chance to make something for himself on the side.

**MABEL.**— This excellent Cross-bred Angus - Shorthorn heifer (shown in photograph) was born November 5th, 1917. At thirteen months and thirteen days old weighed 990 pounds, and sold to Anderson Bros., of London, for baby beef, for which they paid 25c a pound, live weight. This calf was fed "ROYAL PURPLE" Calf Meal. It was fed and bred by Mr. Andrew Hicks, of Centralia, Ontario.

Mr. Hicks also raised **BILLY SUNDAY**, which he sold at Toronto Fat Stock Show, on December 8th, 1918, at auction, for 25c a pound, to the Harris Abattoir. Billy was fifteen months five days old and weighed 1,330 lbs. Said to be the heaviest calf at his age ever seen at the Toronto Fat Stock Show. He was also fed **ROYAL PURPLE** throughout the year.

Mr. Hicks fed 2,100 lbs. of **ROYAL PURPLE CALF MEAL** to all his calves last year.

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Royal Purple Calf Meal is sold everywhere by dealers. If your particular dealer does not handle it, write to us and we will tell you where you can get it.

There is something wrong with the farmer's habit of feeding his calves new milk to raise calves. Calves can be raised on our Royal Purple Calf Meal after three days old, just as well as on new milk, at 30% of the price of new milk. This will save the farmer beyond a shadow of a doubt. We admit there are meals sold on our Canadian market called "Calf Meal" that would make better pig food, because they do not take the place of new milk, but our Royal Purple product contains all the elements found in new milk.

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all classes of producers, employers and the State. So far, the miners, the railway workers and the machinists have refused to co-operate, but it is safe to say they cannot long stand aside. The logic of events will compel these workers to come in. It is slowly but surely being recognized in the United Kingdom that the old *laissez faire*, let-everything-take-care-of-itself program, will no longer do. There must be united effort for the common good, that work, wages and reasonable returns for commodities produced may be assured to all. In the United States, on the other hand, nearly all the social machinery of war is being thrown upon the scrap heap. And as private employers of labor are not certain regarding the immediate trend of wages, the cost of raw materials and prices, industry is slowing down and unemployment growing. If fixed prices and guaranteed markets were imperatively essential to make for success in war, costly as the process may temporarily be, will it not be cheaper and better in the end than widespread unemployment, closed factories and the curtailment of agricultural production?

If Canadian industry and agriculture were certain of good markets through Federal financing and supervision, it is plain that sufficient products would be forthcoming to sustain the population of the country, take care of overhead expenses and meet the national requirements. Of course, no one would advocate that the Government should perform miracles, or even attempt to supplant, much less smother, private enterprise. But the last four years have sufficiently demonstrated that undertakings are possible through co-operation and national supervision that are beyond the power of individual performance. A national survey should be made of the people's needs, and industries financed to supply them. In this way the home market would be available for the absorption of agricultural products, and the materials produced out of which taxes and wages, as well as interest and dividends, paid. But above all it is of vital importance to perfect marketing machinery for disposing of the products of the farm at home and abroad, and to lend the farmers of the nation such financial support as their occupation may require.

It strikes us that the only question that really requires an answer here is: Is this matter of essential and vital importance? The railways of Canada have, in the past, received millions of acres of free lands, bond guarantees and cash subsidies. The iron and steel industries of the Dominion have also secured from the public treasury millions in the form of cash bonuses. The manufacturers receive heavy protection under the tariff. Only agriculture, considering its enormously important place in the economy of the nation, has been permitted to go its own way unaided. The guaranteed maximum price for wheat was a fixed price designed not to aid or benefit the farmer, but to protect consumers in Allied countries. To that price fixation policy Western farmers submitted, although they lost millions of dollars thereby. To the extent that it is safe and sound to do so, then, the Federal Government should use Canadian credit to finance Eastern nations in the buying of the products of Canadian farms. In the end those credits will be liquidated by the importation of goods, either from those countries themselves or from other nations by means of the mechanism of international exchange.

Both Canada and the United States are confronted by an economic emergency. Their prosperity for the coming decade depends upon the adoption and application of the right emergency methods.

Two men thrown together at a horse show were discussing their adventures with the equine tribe.

"A horse ran away with me once, and I wasn't out for two months," remarked the man with the Trilby hat.

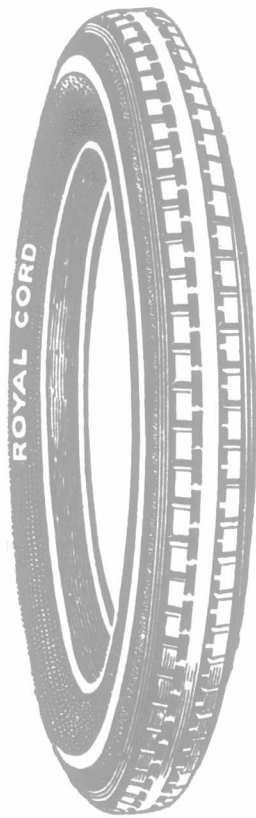
"That's nothing!" replied the man with the bowler. "I ran away with a horse once, and I wasn't out for two years!"

New Curio. "What did you think of the sermon on Sunday, Mrs. Jones?"

Parish-woman. "Very good indeed, sir. So instructive. We really didn't know what sin we'd all come here."

# Royal Cord

## The Master Creation of Canada's Leading Tire Builders



WERE ease and comfort their only superior qualities, they would still be the choice of every car-owner who could afford them.

But they are more than a luxury, they are a delightful economy.

Their marvellous construction of tens of thousands of cords, each imbedded in pure rubber, makes a tire that is practically proof against blow-outs. Yet so yielding and resilient is the tire-structure and tire-wall that the shock of most road obstructions is absorbed. It also relieves the non-skid tread of a portion of its strain, and reduces side-slipping without impairing the ease in steering.

Careful tests show that a car equipped with "ROYAL CORD" TIRES makes more miles per gallon of gasoline than the same car can make on fabric tires. This saving alone pays the difference in cost.

With blow-outs reduced to a minimum; and a practical saving in gasoline; there is ample proof of the sound economy of "ROYAL CORD" Tires.

Then, too, there is the luxury of easy riding, and the assurance of having the finest tires that can be made.

### "DOMINION" INNER TUBES

are made expressly to fit "Royal Cord" Tires, as well as the other five treads of "Dominion" Tires. Be sure to have your tires fitted right—with "Dominion" Inner Tubes.

DOMINION TIRES and ACCESSORIES are distributed through DOMINION RUBBER SYSTEM BRANCHES and sold by the best dealers throughout Canada. 157



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ON, ONT.

## Yorkshires

We are now booking orders for our spring pigs. Write for prices.

### WELDWOOD FARM

Farmer's Advocate, London, Ontario

## BERKSHIRES

My Berkshires for many years have won the leading prizes at Toronto, London and Guelph. Highcleres and Sallys, the best strain of the breed, both sexes, any age.

ADAM THOMPSON, R.R. No. 1, Stratford, Ont.  
Shakespeare Station G.T.R.



## ELMHURST LARGE ENGLISH BERKSHIRES

From our recent importation of sows, together with the stock boar, Suddon-Torredor, we can supply select breeding stock all ages. Satisfaction and safe delivery guaranteed.

H. M. VANDERLIP, Breeder and Importer, R.R. 1, BRANTFORD, ONTARIO.  
Langford Station on Brantford and Hamilton Radial.

## 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

Our fourth importation has just arrived, including an 800-lb. sow with litter at side, sired by the 1,000-lb. Champion of the National O. I. C. Show. Ten litters March and April pigs for sale. John G. Annesser, Tilbury, Ont.

## WALNUT GROVE TAMWORTHS

My present offering: Young Tamworth sows and boars three months old. Also young pigs ready to wean.

C. R. JAMES (Take Radial cars from North Toronto) Richmond Hill, Ont.

## Maplehurst Herd of Tamworth Swine—Present offering:

A choice lot of young stock, either sex, from the leading herd of Canada for the last 15 years. We also have standard-bred horses. Present offering: One first-class young stallion; S.-C. White Leghorns. D. Douglas & Sons, R.R. No. 4, Mitchell, Ont.

## I HAVE FOUR CHOICE SHORTHORN BULLS

All are of serviceable age and from good striking dams. They are sired by my former Welding Gilt herd sire which was a son of Broadbent Prince. Also have younger calves by present herd sire Primrose Duke, as well as royal's herd to him. Inquiry invited. Write me also for anything in Tamworths.

A. A. COLWILL (Farm, phone, V. 1, c. Bell phone), Newcastle, 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.

## Inverugie Tamworths

Still to the fore, w'l a bonny bunch o' gilts, bred and ready to breed; a few weaned laddies. Ca' in as ye're passin' or write me a bit note. Leslie Hadden, Pefferlaw, Ont., R.R. No. 2.

## Choice Seed Corn

White Cap and Bailey, equal to any we have ever offered. Also the best in Poland China swine. Prices moderate.

GEO. G. GOULD, Essex, Ontario

## SPRINGBANK O. I. CHESTER WHITE SWINE

Scotch Shorthorns. Sows bred, boars fit for service, from the best strains of the breed priced to sell. Satisfaction guaranteed. Inspection invited. Wm. Stevenson & Son, Science Hill, Ontario.

## FOR SALE

Shropshire ewe lambs and young ewes, two Clydesdale Stallions, four Shorthorn bulls

W. H. Pugh - Myrtle Station, Ont.

## Kent or Romney Marsh Sheep

The hardiest and best grazing mutton and wool sheep of Great Britain. Successfully acclimated wherever grazing sheep are required. Annual Ram Show and Sale, 350 head, Ashford, Kent, on Thursday and Friday, September 25th and 26th, 1919. Descriptive pamphlet, list of breeders, and all information from

A. J. BURROWS - Ashford, Kent

And 16 Bedford Square, London, England

## Summer Hill Oxfords



The Sheep for the Producer, Butcher and Consumer.

Our Oxfords Hold an Unbeaten Record for America.

We have at present a choice offering of yearling ewes and rams, as well as a lot of good ram and ewe lambs—the choicest selection of flock-heads and breeding stock we have ever offered.

## PETER ARKELL & SONS

R. R. No. 1 Teeswater, Ontario  
H. C. Arkell W. J. Arkell F. S. Arkell

## High Wool Prices

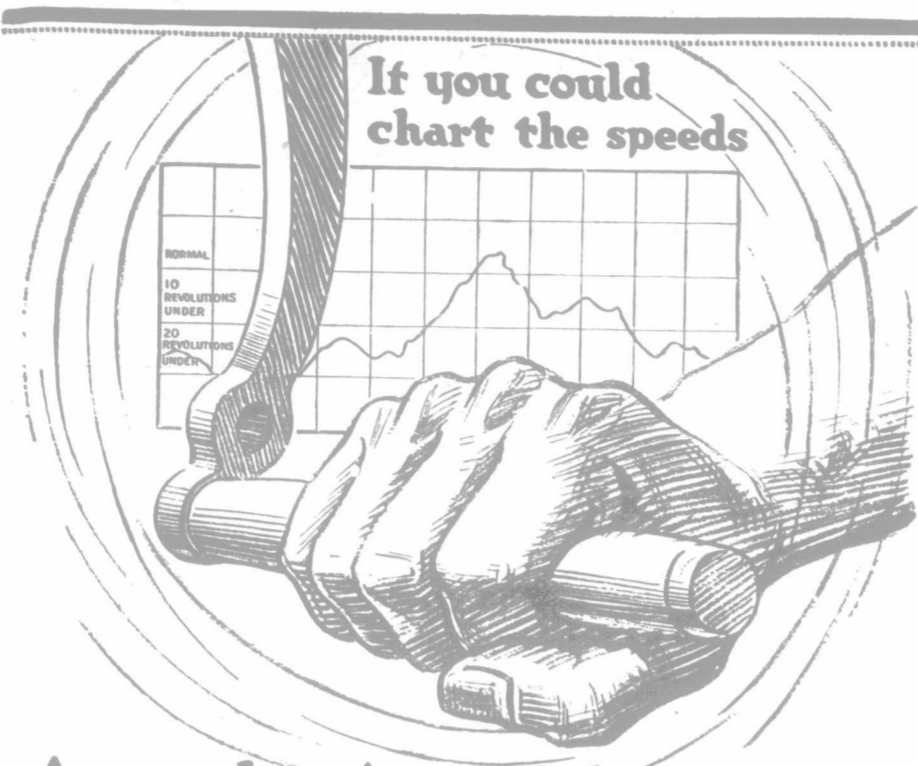
They're paying big money for long, even wool—but not for second cuts. Shear with a machine and get all the wool in one clip. Get a Stewart No. 9 Ball Bearing Machine. Gets 15% more wool and does away with second cuts. Ideal for flocks up to 300 head! If dealer can't supply you send us his name. Write for catalogue.

CHICAGO FLEXIBLE SHAFT COMPANY  
Dept. B 161, 12th St. and Central Ave., Chicago, Ill.

## 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.





If you could  
chart the speeds

**Around and Around and Around !!!**  
No human hand can keep up a fixed normal speed

If every owner of a fixed feed separator—especially those who *think* they are skimming clean—could see a chart of the great *variation* in speed during one week's separation, they would be amazed. The chart would show that practically all the time the separator was being turned *below* speed and wasting butterfat. Actual tests prove that 95% of all separators are turned below speed most of the time and all separators are turned below speed some of the time. No matter how careful you are, it is humanly *impossible* to turn at a fixed speed, day in and day out. Speedometers, bells and other contraptions only show the wastefulness of fixed feed separators.

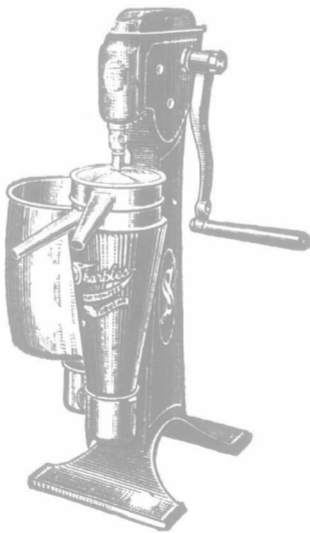
## SHARPLES SUCTION-FEED CREAM SEPARATOR

SKIMS CLEAN AT ANY SPEED

Before you buy a separator, ask if it will *skim clean at any speed*—as otherwise you are going to lose money. Ask if it is a North American invention, North American owned. Meanwhile write for Sharples catalog and Sharples Book of Old Songs to nearest office, addressing Dept. 78

"There are no substitutes for dairy foods"

THE SHARPLES SEPARATOR CO.  
TORONTO, ONT. REGINA, SASK.



DC-93

Sizes for 2, 3 and 4 horses.



### THE BISSELL DISK

has made a great record throughout all Canada. There are good reasons why this is so. Balanced Right—Does not hump up. Improved Plate—Cuts and turns soil over. Hitches well Back—Easy draught. This Disk has several imitators, but no equal. None genuine without the name "BISSELL." Test trials given on hard land with anything that cultivates. Write Dept. W for free Catalogue. 92

T. E. BISSELL CO., LIMITED, ELORA, ONT.

We have doubled our factory capacity and are determined to supply our customers far and near.

## Our School Department.

### Conducting School Gardens and Fairs.

BY J. A. SHORT.

The main object in having a school garden is, not to grow vegetables or flowers for profit, but, to create an interest in the growing of both under proper supervision of the teacher and to conduct a few experiments or tests of varieties of vegetables where proper records can be kept. If you will pardon a personal reference I can better illustrate what I have to say by referring to our own school and home gardens which have created a good deal of interest in the community. We begin our preparation about the first of March when we sow our tomato seeds in fat boxes and keep these in the school room for the pupils to observe daily. Our cabbage and flowers are sown a couple of weeks later under similar conditions, and as soon as each variety is large enough we transplant these seedlings into larger boxes and the pupils get a practical lesson in preparing their own plants or in growing plants for sale. Our school plants are distributed among the pupils?

Our school plot is forty yards by fifteen and we have tried different ways of planting it. One year we divide it into plots about five feet by ten feet which are again divided into four rows so each pupil can grow one row of beets, one of carrots, one of radish and one of lettuce or peas. We plant cabbage and tomatoes between the rows of lettuce or radish so that when these are used up the other plants come along for fall. Or we may plant all our garden in rows dividing these into sections so that as many pupils as possible may be interested. All the produce grown belongs to the pupils in charge.

Home gardens are planted under the same conditions as nearly as possible as the school gardens using the same kinds and varieties of seeds, which are supplied by the school board, and I find it of advantage to provide about four varieties of each kind as this gives us a greater variety in competition for our school fair. When planting at school the whole class is instructed in all the operations and those who plant gardens at home must follow the same plan. I make it a rule to visit each home garden at least twice. Once after the seed is up to give instruction in thinning and transplanting and again just before our fair to give instruction in selecting and preparing specimens for exhibition and also to see who have the best plots as medals are awarded for these.

Our school fair is held about the middle or third week of September and as we are too large a school to compete with the rural schools we hold a fair of our own which is conducted on a very similar plan to our country fair. By having so many different varieties we are able to have a good exhibit and we have always been fortunate enough to have a market gardener for our judge. In the evening we usually hold a concert and get our judge to explain why certain grading for prizes has been made and in this way the pupils get further instruction on types of varieties and selection.

We also get eggs for hatching each year from Guelph O. A. C., bred-to-lay strains, and hold a chicken show along with our fair. The girls have baking contests and the boys build bird houses and make collections of weeds which must be correctly named. The pupils look forward to this fair during the whole season and their interest never lags.

Our prizes are always given in connection with our closing exercises at the end of the year.

In summing up the main advantage of the school and home gardens is to create an interest in production and thus develop the idea of thrift. The idea of a plot at the school keeps up the enthusiasm.

### Agriculture in Public Schools.

To teach agriculture successfully in the school one must be thoroughly interested in the work, not spasmodically but constantly. There should be something for teacher and pupil to watch, to talk about and to record daily. Experiments are invaluable. Curiosity excites interest which does not die when four o'clock comes but is carried to the home and here ideas gained through observation are put into actual practice. Curiosity finds expression in other experiments and as children like to tell what they have discovered, widespread interest follows.

Nor is this the only result from experiments of various kinds. Whether in the school, the home, garden, field or orchard they are a medium through which the teacher and pupil learn to know each other.

An instructor who is alive to all that interests the smallest, the most self-conscious or the most mischievous pupil has ample opportunity to get in touch with the child's nature. This accomplished makes school one happy day.

With a mutual understanding there is no need of worry about discipline nor is there need to worry about lessons when children realize that school is not necessarily a place of rules and uninteresting facts, but a second home where mother nature teaches her children many useful lessons.

Nipissing, Ont.

M. C.

### Wrong as Well as Right in the School Garden.

In an address before the recent convention of the Ontario Educational Association, John Dearnish, Principal of the London Normal School, referred to the school garden in the following manner:

"No child is old enough to study agriculture who is too young to study it by the laboratory method. That is where the importance of gardening is determined. A school garden is not a good laboratory without weeds and insects, fertilized and unfertilized plots, plants too close to each other and too far apart, in short without the exhibits of mistakes and their corrections. The proper use of the school garden is not to produce big cabbage-heads but well-developed children's heads and bodies too. Hence in the school garden there ought to be plots for single pupils or small groups of pupils, and larger experimental plots for which the teacher and the school as a whole are responsible. In rural schools there is opportunity for nearly every pupil to have a home garden, and here is the place for the application of lessons learned in the school garden. It should be as large as practicable, clear and well-cultivated and well-filled with well-grown vegetables and fine flowers. The teacher should have detailed knowledge of and interest in all the pupils' home gardens. It is from these that the articles for exhibition at the school-fairs should be taken.

Get the community interested in the school garden; this will make the work easier for the teacher and provide local support.

A series of articles on the rural school has been written for "The Farmer's Advocate" by Sinclair Laird, Dean of school for teachers, Macdonald College, Que., and the first one appears in this issue.

It is a debatable question whether the school garden should provide individual plots for the children or be run as a community enterprise throughout. The majority of gardens we understand are divided into plots, but the plan published last week is not thus laid out. In the near future we shall reproduce a plan outlining the individual plot system.

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# Help the Y.M.C.A. Finish Its Work for the Soldiers



Help the "Y"  
Construct the Manhood  
that will  
Reconstruct Canada



ALL the world now knows that the Red Triangle of the Y.M.C.A. was the "Sign of Friendship" to thousands of your brothers, sons, nephews, cousins and neighbours' boys in the last four and a half years. Wherever the Canadian Soldiers went, the "Good old 'Y'" went, too. And now it is coming back home with them!

For the support which has made possible the war work of the Y.M.C.A., we thank you. Your money has been

well expended. We have rendered full account.

We ask now your continued sympathy and support for Red Triangle Service for our soldiers during Demobilization, and for Y.M.C.A. work for Canada generally during the Reconstruction period. The Annual Red Triangle campaign will be held throughout Canada May 5th to 9th, 1919. The objective is \$1,100,000.

For what purpose is the money required? We will tell you.

## For Our Men Returning

For the soldiers and their dependents, returning from Overseas, we have provided as follows:

1. A Red Triangle man on board every ship when it leaves Great Britain, with a full equipment of games, gramophones and records, magic lantern, literature and writing materials. Where possible, also a piano or an organ. Lectures, concerts, sing songs, instruction re Government repatriation plans, and Sunday services.

2. Red Triangle comforts and facilities for the men on arrival at Halifax, St. John, Quebec, and Montreal, including coffee stalls with free drinks, free eatables, cigarettes, candies, etc.

3. Red Triangle men on every troop train to provide regularly free drinks, eatables and cigarettes, organize games and sing songs and furnish information.

4. Red Triangle free canteen service, information bureau, etc., at each of the 23 dispersal centres in Canada.

5. Red Triangle Clubs in the principal cities of Canada in the shape of large Y.M.C.A. hostels to furnish bed and board at low rates and to be a rendezvous for soldiers.

6. Seventy-five Secretaries to superintend Red Triangle service in Military Hospitals, Camps and Barracks throughout Canada.

7. Tickets entitling soldiers to full Y.M.C.A. privileges for six months at any local Y.M.C.A. furnished.

In addition to our work for the returning soldiers, we have to maintain the Red Triangle service to the full for the soldiers in Siberia, as well as the work of special Secretaries in Northern Russia, Palestine and Poland.

## For Canada's Manhood

The reconstruction program of the Y.M.C.A. includes the following vitally important developments:

1. An increased service to 300,000 teen-age boys in the Dominion—the development of Canadian Standard Efficiency Training; Bible Study Groups; Summer Camps; Conferences; Service for High School Boys; for Working Boys in the towns and cities; for boys on the farm and for boys everywhere, who have lacked opportunity for mental, moral, physical or social development.

2. Inauguration of Y.M.C.A. work in the country, and the smaller towns and villages lacking Association buildings and equipment, on a plan of country organizations. This will include the establishment of Red Triangle centres for social, recreational and educational work among boys and men, in co-operation with the churches.

3. The promotion of Y.M.C.A. work among Canada's army of workers in industrial plants, both in Y.M.C.A. buildings and in the factory buildings, organizing the social spirit among the industrial workers of our cities by meetings, entertainments, games and sports.

4. The establishment of the Red Triangle in isolated districts where lumbermen, miners and other workers hold the front trenches of industry.

5. Besides these main fields of increased activity for 1919, we have to provide for enlarged work among railway men, college students and for our campaign to encourage physical and sex education. Under all our work we place the fundamental foundation of manly Christianity.

Canadian  
Y.M.C.A.

Red Triangle Campaign  
\$1,100,000 May 5 to 9  
Canada-Wide Appeal

### Y.W.C.A.

For the wives and children Overseas, dependent upon Canadian soldiers, and for Y.W.C.A. work in Canada generally, a sum of \$175,000 from the Red Triangle Fund will be set aside for the Dominion Council of the Y.W.C.A. which is caring for the soldiers' women folk, and their little ones on the long journey from Liverpool to Canada, and is also extending its work for Canadian girls.

For their sake also be generous when you make your contribution.

FOR the sake of our victorious soldiers and their dependents, and the happiness of their home-coming; for the sake of our future citizens, our teen-age boys; for the sake of rural life in Canada; for the sake of the social betterment of the toilers in factory and workshop; for the sake of lonely men and boys in our mines and forests; for the sake of Christian Society and Canadian manhood—we appeal to you. Give us your contribution, little or big. Be as generous as you can.

Hand your contribution to the canvasser when he calls, or if you live where it is difficult for him to call, send it by check, money order or registered letter to the National Treasurer, Red Triangle Campaign, 120 Bay Street, Toronto.

### Please Note:

We are not asking for money to carry on our work Overseas, with the Army in Great Britain, France or Belgium. That work will continue at its maximum for some months, financially provided for by the liquidation of our assets Overseas, and will not cease till the last man has sailed for home.

## National Council, Young Men's Christian Associations of Canada

The Red Triangle Campaign is being conducted under the distinguished patronage of His Excellency, the Duke of Devonshire, K.G., G.C.M.G., G.C.V.O., P.C.

Hon. Campaign Chairman:  
JOHN W. ROSS, Montreal

Campaign Chairman:  
G. HERBERT WOOD, Toronto

Campaign Treasurer:  
THOMAS BRADSHAW, Toronto.

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# POWER LIGHT

## In and About Your House AND BARN WITH Northern Electric POWER and LIGHT

**N**ORTHERN Electric Power and Light means *Power* to do most of the chores in half the time, doing away with a lot of hard work.

It means *Light*—a good supply of happy, clear, safe, glowing electric light—better than you ever had the old way.

Never in the history of isolated electric generating systems was there an ideal so reliable, so successful as *Northern Electric Power and Light*. It has all the finishing touches to make it the most complete, efficient, reliable, economical electric Power and Light System that modern science has devised—truly it is a great achievement.

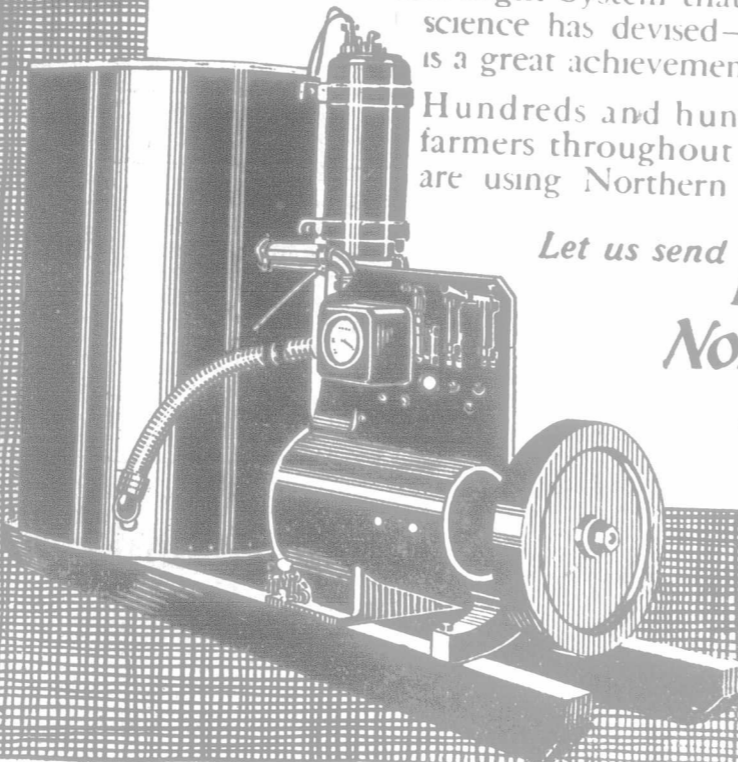
Hundreds and hundreds of farmers throughout Canada are using Northern Electric

Power and Light with intense satisfaction, and you, too, can very easily become one of them.

Electricity will turn the grindstone, cream separator, grain grinder, churn and a host of other chores about the farm. It will clean the house, wash and iron clothes, wash the dishes, cool the home, and do a score of other household tasks all at a surprisingly low cost.

Northern Electric Power and Light is automatically controlled—simple and easy to look after. Back of it is more than twenty-five years of electrical experience, a Dominion-wide distributing organization with complete stocks in nine of Canada's largest cities.

When you buy Northern Electric Power and Light you get a system which enjoys an international reputation—a means of easily procuring almost every kind of electrical appliance built especially for this service, such as Northern Electric lamps, wire, motors, pumps, irons, sewing-machine, vacuum cleaner, etc. See that your whole electric outfit is Northern Electric.



Let us send you some interesting illustrated leaflets to-day. Fill in and return attached coupon.

### Northern Electric Company

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MONTREAL TORONTO REGINA CALGARY  
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L.F.A. 113  
**Coupon**

Northern Electric Company  
LIMITED  
(address nearest house)

Dear Sirs,  
I want to know more about Northern Electric Power and Light. Please send me further particulars and literature, on the understanding that I in no way obligate myself to purchase.

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