

APRIL 1, 1920

PUBLISHED EVERY WEEK. \$1.50 PER YEAR.

# THE FARMER'S ADVOCATE

AND HOME MAGAZINE

PERSEVERE  
SUCCEED

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

ENTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1876.

LONDON, ONTARIO, APRIL 8, 1920.

No. 1437

LV.



**Stronger Than a Mighty Fist**

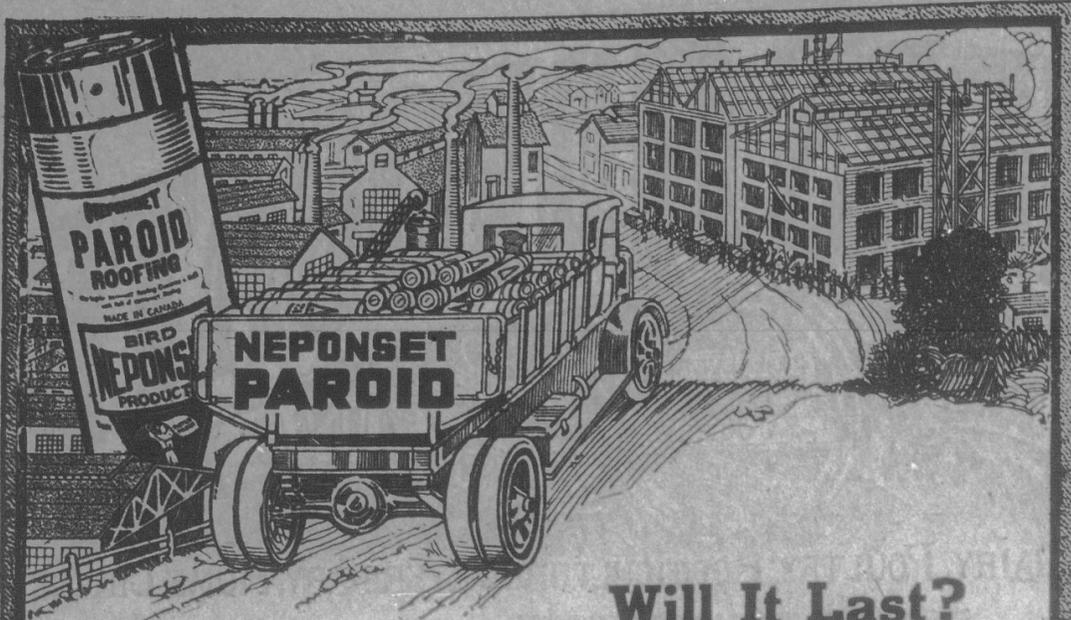
The Well-Known Tight Lock Used In

# Frost Fence

Frost Steel and Wire Co., Limited, Hamilton, Canada

Manufacturers of Galvanized and Bright Wire, Hay Wire and Bale Ties, Woven Wire, Farm and Ornamental Fences, Galvanized Gates,  
Manufacturers' Wire Supplies.

128



Will It Last?

The Final Test Of Any Roofing

WHY spend a lot of money on an unknown roofing material, one that is not backed by past performances? Whether it is a small job, or an industrial plant covering acres, that is to be roofed—make a lasting job of it by using a roofing that is worthy, one that will stand up to hard wear and changeable weather conditions.

NEPONSET PAROID

gives just this service on every description of roof, from the largest of railroad buildings and factories, down to the humblest of sheds. The base of Neponset Paroid is a high-grade rag felt thoroughly impregnated with asphalt, making it positively waterproof and fire-resisting.

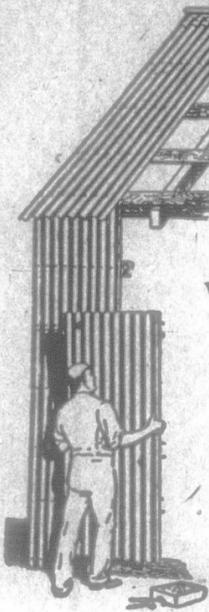
It is further reinforced with a talc surface, grey in color; or with a permanent slate surface, red or green in color. Satisfy yourself when ordering roofing that it is Neponset Paroid. EASY TO LAY—With every roll is supplied sufficient nails and cement with full directions.

There is a Neponset dealer in your district. Write us for his name and a copy of our illustrated booklet "Roofing Canada."

Made in Canada by BIRD & SON LIMITED, Hamilton, Ont.

"Canadian money, Canadian made, should be spent in Canada for Canadian trade."

NEPONSET ROOFS



"GALT" Corrugated Steel Sheets FOR ROOFING AND SIDING

We manufacture these Sheets both in Galvanized and Painted Steel, in lengths of 4, 6, 8 and 10 feet.

WE ALSO MANUFACTURE

"GALT" STEEL SHINGLES, VENTILATORS ORNAMENTAL EMBOSSED STEEL CEILINGS, ETC.

The Galt Art Metal Co., Limited, Galt, Ont.



If it's as good as Goodison it is a Goodison

GOODISON MONEY MAKERS

GOODISON Threshers are money makers whether you use them for your own threshing or for custom work. They are easy to operate—handle the grain fast and thresh it all. They run steadily—no stops for repairs—no stops for adjustments.

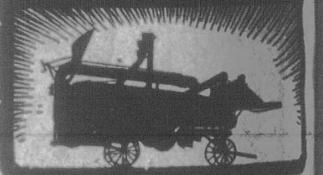
"If it's as good as a Goodison it is a Goodison."

Carefully selected materials and unhurried honest building makes the Goodison Thresher unsurpassable.

We can give you no stronger evidence of Goodison satisfaction than the letters we have received from Goodison owners all over the continent. They are included in our new folder, "Goodison Features and Feathers." Ask for it.

THE JOHN GOODISON THRESHER COMPANY LTD. Sarnia - Ontario - Canada

MADE IN CANADA



Tudhope-Anderson

WIDE TIRE Steel Wheels are Made in Canada

Ordinary steel wheels—the imported kind—are often made with spokes cut in the hub. If you break a spoke you lose the whole wheel.

Tudhope-Anderson Steel Wheels have removable spokes easily replaced at low cost and in quick time. Write us today for order-blanks and full particulars about wide tire Steel Wheels for use about the farm. Made in sizes 20" to 48" diameter. Hubs to fit any skel or bearing. Tire widths, 8" to 18". We also manufacture Low Down Wide Tire Steel Wheel Trucks.



Tudhope-Anderson Co., Limited Orillia, Ontario

Out out this advertisement and mail to us

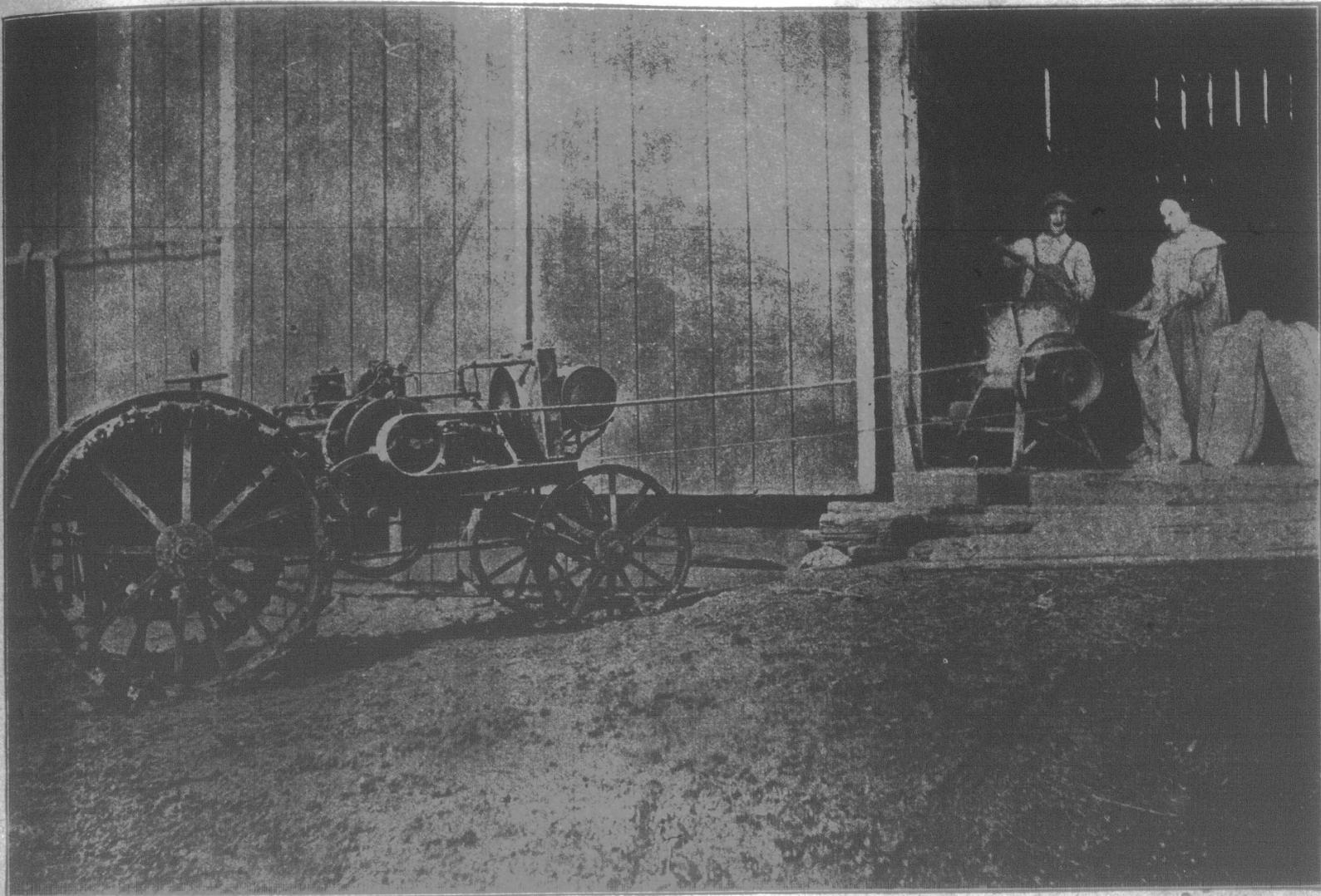
Corn That Will Grow

Canadian-Grown Seed Corn Your money back if not satisfied

J. O. Duke - Ruthven, Ont.

PATENTS Trade Marks and Designs Preserved in all Countries. Special attention given to patent litigation. Pamphlet sent free on application. RIDOUT & MAYBEE Toronto, Ontario

156 Yonge St.



## Feed-Grinding—and Goodyear Belts

THOSE who plan to use their tractors for feed grinding are one of the largest purchasing groups interested in Goodyear Extra Power belts. Their interest in Goodyear Extra Power is due to the same conditions that brought about such a wide use of this belt by threshermen last year. Like the threshermen, they realize that old-style belts slip too much, stretch too much, have to be run too tight, cause too much trouble, and waste too much time.

Modern high-speed machinery needs modern high-speed belts. Goodyear Extra Power Belts are modern high-speed belts—unstitched. They are supple, and hug small pulleys closely. They do not require hours of breaking in, but run sliplessly from the first minute that they are put to service.

Their friction surface grips the pulley face, even when the belt is run loose. P. B. Cleland, near Midnapore, Alta., reports that he has run his Extra Power so slack that any other belt of which he knows would have slipped, and yet there was no slip.

The threshing outfit of Willard Winch, near Unity, Sask., reports that because Extra Power runs without slipping, even when very loose, it means faster work.

Threshing outfits everywhere have found also that Goodyear Extra Power is permanently waterproof, and stays waterproof without any painting or dressing.

Because of this waterproof quality, Goodyear Extra Power does not shrink when exposed to rain, dew or snow. It does not stretch because of heat or dryness.

You can buy Goodyear Extra Power Belts from the Goodyear Mechanical Goods Service Station Dealers. They buy direct from the factory, so that they can sell you this high-speed, supple, friction-surface belt for just a little more than the price charged for ordinary belts. They have both endless and other belts in stock, and can sell you any length in all standard widths. If you want more information about Goodyear Extra Power, either for feed-grinding and other all-round uses—or for threshing and other heavy duty—ask for the Goodyear Farm Book. All Mechanical Goods Service Stations have it, and you can also get copies direct from Toronto.

The Goodyear Tire & Rubber Co. of Canada  
Toronto, Ont. Limited

**GOODYEAR**  
MADE IN CANADA  
**EXTRA POWER BELTING**

N MONEY  
KERS

Threshers are  
makers whether  
for your own  
for custom  
are easy to  
dle the grain  
it all. They  
no stops for  
stops for ad-

good as a  
n it is a  
ison."

selected ma-  
d unburied  
ng makes the  
resher unaur-

you no stronger  
dison satisfaction  
ve have received  
owners all over  
they are included  
der, "Goodness  
eathen." Ask

GOODISON  
MPANY LTD.  
o - Cash

CANADA



Anderson  
Wheels  
in Canada

Wheels—the import  
le with spokes cut  
break a spoke run

Steel Wheels have  
sily replaced at low  
ime. Write us to-  
s and full particu-  
ars about wide tire  
el Wheels for work  
out the farm. Made  
izes 20" to 48"  
imeter. Hubs to fit  
y skein or bearing  
e widths, 3" to 14".

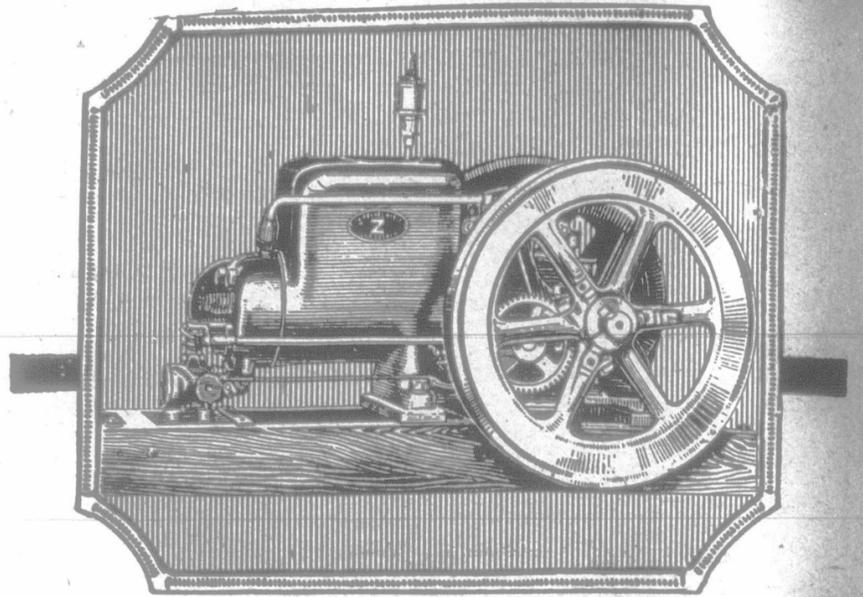
We also manufac-  
e Low Down Wire  
re Steel Wheel  
ucks.

on Co., Limited  
Ontario  
ment and mail to

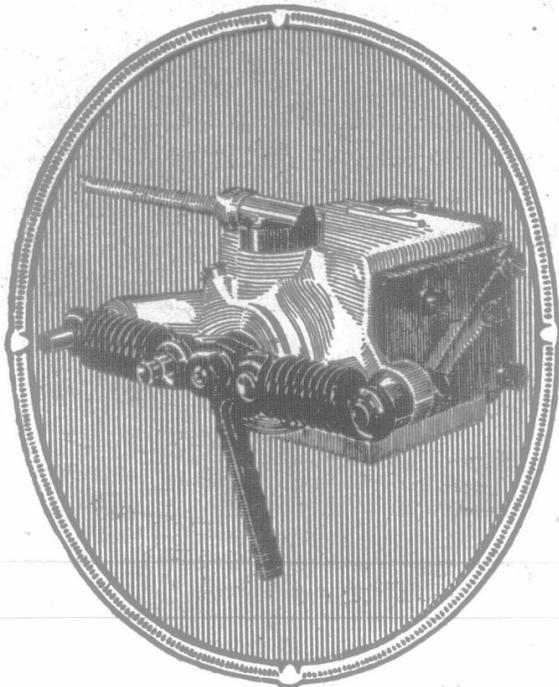
Will Grow  
rn Seed Corn  
if not satisfied  
Ruthven, Ont.

Marks and Design  
red in all Countries  
to patent litigation  
plication.  
MAYBEE  
Toronto, Ontario

# Making the Best Engine Better.



## *Fairbanks-Morse "Z" Farm Engine with Bosch Magneto*



JUST think of the famous "Z" engine with a Bosch high tension, oscillating magneto—which delivers a steady succession of hot, intensive sparks. ¶ Every farmer in Canada should at once call on the nearest "Z" engine dealer and see the result of this recent epoch-making combination—FAIRBANKS-MORSE "Z" WITH BOSCH MAGNETO. ¶ Mechanical perfection, plus power—and right price—to date sold the "Z" Engine to over 250,000 farmers. ¶ This quality and quantity production enabled us to contract for a large proportion of the extensive Bosch facilities for making this one possible "Z" betterment, which establishes a new farm engine standard. ¶ And all Bosch Service Stations throughout Canada will assist our dealers in delivering maximum engine service.

*The Canadian*  
**Fairbanks-Morse**

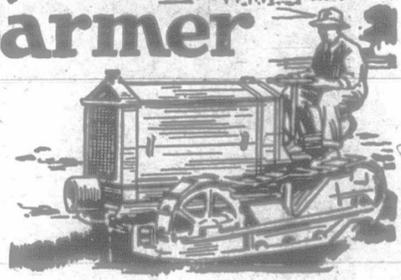
MADE IN TORONTO, CANADA, BY

HALIFAX ST. JOHN QUEBEC MONTREAL *Co., Limited.*  
 OTTAWA TORONTO HAMILTON WINDSOR WINNIPEG  
 SASKATOON CALGARY VANCOUVER VICTORIA





# Scientific Refining is Helping the Farmer



Thousands of successful farmers are benefitting from processes perfected in the En-ar-co laboratories and adopted in the En-ar-co refineries.

These processes were the result of careful investigation and analysis. It was realized that no engine, however perfect, could give the best service unless provided with a perfect lubricant. An engine must run with absolute smoothness, or some power is lost. And the least friction causes wear, and shortens its life.

## En-ar-co Motor Oil

### The Scientific Lubricant

coats the moving parts of your engine with a smooth, velvety jacket, in which they slide as easily as in air. This allows your motor to produce every ounce of power it is capable of, and to give you long continuous service.

Scientifically produced in modern refineries by specially trained workmen from selected crude petroleum, it is free from clogging elements. No coke-like deposits to cause premature combustion.

This comes of scientific refining. So with other En-ar-co Products, all made in the same scientific way.



#### White Rose Gasoline

Gives added power to your engine; puts "pep" and "punch" into it.

#### National Light Oil

Gives a clear, bright light in lamps and lanterns; no charred wicks or sooty chimneys. It gives an even, steady heat in stoves, brooders and incubators. Used in kerosene-powered tractors, it means maximum power.

#### En-ar-co Motor Grease

The proper grease for compression cups, differentials and transmissions. Permits moving parts to "cut through" without effort.

#### Black Beauty Axle Grease

Takes the grind and squeak out of axles. Ensures smooth running and long wear.

Order En-ar-co Products from your local dealer. If he hasn't got them, write us and we'll see that you are supplied promptly.

### Send for FREE OIL CAN

This handy Oil Can, with long slim spout—just the thing for oiling hard-to-get-at parts—will be sent FREE to any auto or tractor owner who will fill out the attached coupon and mail it to us.

NOTE—Can will not be sent unless you give make of your auto or tractor.

## Canadian Oil Companies, Limited

Branch Offices in 35 Cities

GENERAL OFFICES: - TORONTO, ONT.



Canadian Oil Companies, Limited, 1443 Excelsior Life Bldg., Toronto, Ont.

I own  
(Give name above)  
automobile or tractor and enclose two 3-cent stamps. Send me Handy Oil Can FREE. Please give nearest shipping point in this Province and quote prices on the items I have marked. I will be in the market about

(Give date above)  
I use.....gals. gasoline per year.  
I use.....gals. motor oil per year.  
I use.....lbs. axle grease per year.  
I use.....lbs. auto grease per year.  
I use.....gals. kerosene per year.  
I use.....gals. tractor oil per year.

My Name is.....  
Address.....  
Postoffice.....  
County..... Province.....

# From the Lithe, Little Bicycle Tire to the Giant, Gripping Truck Tire

## GOODYEAR YEAR MADE IN CANADA

### ALL-WEATHER TREAD

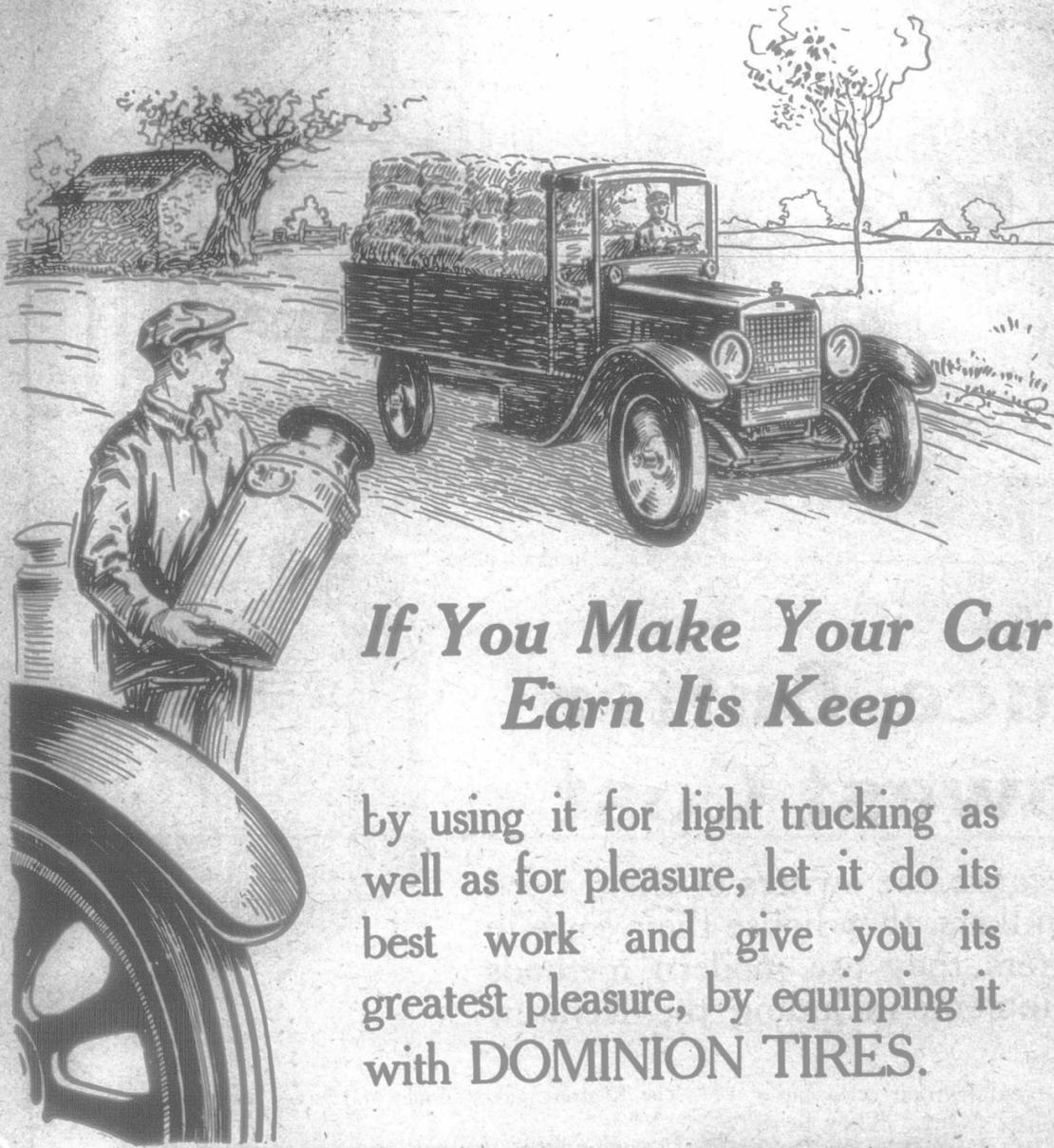
THROUGHOUT the world, wherever a conveyance is cushioned on pneumatic tires, there you will find the imprint of the All-Weather Tread. It may be the narrow path of the bicycle, the broader trail of the motorcycle—the automobile—or the unmistakable track of a giant truck. But always the story it tells is the same—more motorists ride on Goodyear Tires than on any other brand.

The Goodyear Tire & Rubber Co. of Canada, Limited.

*All-Weather Tires are  
All-Wheel Tires*



Sold



*If You Make Your Car  
Earn Its Keep*

by using it for light trucking as well as for pleasure, let it do its best work and give you its greatest pleasure, by equipping it with DOMINION TIRES.

**DOMINION TIRES**

**ARE GOOD TIRES**

for every car, for every road, for every purpose. Whether you choose "Nobby"—"Chain"—"Dominion"—"Grooved" or "Plain", you get the assurance of sturdy wear, easy riding and satisfactory mileage with every tread.

DOMINION INNER TUBES insure perfectly balanced tires. DOMINION TIRE ACCESSORIES enable you to repair the small cuts, holes and bruises, that frequently occur, and thus make tires last longer.

Sold by the Best Dealers

Throughout Canada.



243

**HEAVY WORK**



Your horses pull heavy loads over all kinds of roads—make their work easy—save your harness and wagons.

**Imperial Mica Axle Grease**

prevents friction in the hub. As the mica flakes work into the pores of the axle and hub, the rough surfaces are smoothed with a hard filling of mica. The grease on the glassy surface insures thorough lubrication. Sold in sizes from a one pound tin to a barrel.

**Imperial Eureka Harness Oil**

makes leather strong, pliable and waterproof. Prevents cracking and breaking of stitches—cannot become rancid because pure mineral oil. It gives leather a rich black, lasting finish.

Sold in pint, quart, half-gallon, gallon and four-gallon sealed cans, half-barrels and barrels.



**IMPERIAL OIL LIMITED**

POWER HEAT LIGHT LUBRICATION BRANCHES IN ALL CITIES

**GRAND TRUNK RAILWAY SYSTEM**

**The Double Track Route**

**BETWEEN MONTREAL, TORONTO, DETROIT AND CHICAGO**

Unexcelled dining car service

Sleeping Cars on Night Trains and Parlor Cars on principal Day Trains.

Full information from any Grand Trunk Ticket Agents or C. E. Horning, District Passenger Agent, Toronto.

**MUSK** WRITE FOR PRICE LIST AND TAGS

E. T. CARTER & Co. 77 Front St., E. Toronto, Can.

**RATS**



## Produce Butter At Lowest Cost

**THEY** do so because the owners of them weed out the poor milkers, they house their cows in comfortable quarters, they use modern methods and modern equipment, including the Renfrew Cream Separator.

The Renfrew is chosen by dairymen who have figured costs down to the fine point. They have proven to their entire satisfaction that the Renfrew gets one pound more of butter-fat out of every thousand pounds of milk skimmed. Government Dairy School tests have also demonstrated that the Renfrew gets 99.99 per cent. of butter-fat.

As the average milking cow will give, at least, 6,000 lbs. of milk each year, the Renfrew will get 6 lbs. more butter-fat from each cow in your herd every year. With butter-fat at 60 cents a pound, that means \$3.60 more profit from each cow, or a saving of \$72 on twenty cows.

The Renfrew makes money and saves money in other ways, too.

It requires little attention—and time is money.

The Renfrew needs oiling but once in three months.

There are no oil cups or places where the oil can leak out on to the machine or on to the floor, and take time to clean up.

The wide open bowl and smoothly polished steel discs are easily and rapidly scalded and rinsed.

The anti-splash milk-can prevents milk splashing out on the floor, and is at a convenient, low height for pouring in milk.

There is nothing cheap about the

# Renfrew

## Cream Separator

Every part is made of high-grade material, accurately manufactured and carefully fitted. The Renfrew is built to last and give extra years of service. It should last one-third longer than an ordinary separator, which means that it is a 33½ per cent. better investment from the standpoint of durability and cost per year of service.

Wouldn't it be good business for you to replace your old separator with a Renfrew and cut down your cost of producing butter-fat?

Write for our Catalog and Dairy School Tests of the Renfrew.

### The Renfrew Machinery Co., Limited

Head Office and Works, Renfrew, Ontario

Branches: Montreal, P.Q.; Sussex, N.B.; Milwaukee, U.S.A.

Other Lines: Renfrew Handy Two-Wheel Truck Scale; Happy Farmer Tractor; Renfrew Oil Engine

# The Farmer's Advocate and Home Magazine

PERSEVERE  
AND  
SUCCEED

ESTABLISHED  
1866

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

LV.

LONDON, ONTARIO, APRIL 8, 1920.

1437

## EDITORIAL.

Do well the work in hand; let the morrow take care of itself.

More action and less talk on the part of our legislators would be more to the point.

Those trees which have been girdled by mice or rabbits may be saved by bridge-grafting.

This month is a critical one for agriculture. The harvest of 1920 depends to a large extent on April's behavior.

It is now too late to get early hatched chicks, but it is not, if one hurries, to have them out in April. Speed up the hens and incubators.

Some of the farmer members in the House of Commons and in the Legislatures would welcome shorter speeches now that the land is calling them.

Feed is scarce in many sections, thus the tendency to turn to pasture early. Unless you want to be short of pasture all summer, give the grass a chance to get some body to it.

Most agricultural societies conduct field crop competitions in which liberal prizes are offered. Have you thought about entering a field? Good seed, well sown, is preparation for a good crop.

A well-prepared seed-bed sown with clean, carefully selected grain is a better advertisement of a man's ability as a farmer than to have the distinction of being the first to finish seeding.

If we would stop crossing bridges before we come to them we would be saved much needless worry. Many of our troubles are imaginary, or, at least, they fade away when we tackle the problem with a will.

Some of those clover meadows, where the plants are heaved and brown, would have stood a better chance of surviving the adverse conditions of frost and drying winds had they not been pastured so closely last fall.

A few trees, shrubs and flowers make the home attractive. No one has a monopoly on these handyworks of nature. They will grow and bloom just as freely beside the cottage door as along the driveway to the mansion.

Instead of quarrelling with your neighbor about that piece of line fence which has blown down, or is not just on the line, go and help build it. For the sake of a day's work or the loss of a few feet of land, some men, in fact the whole family, have been unfriendly with their neighbors for years. Many pass the great divide without becoming reconciled. It is time that we were big enough to forget petty differences and be neighborly in the true sense of the term.

There are two methods of meeting the deficit of \$47,000,000 revealed in the annual statement of the Government-owned railroads. One method is to sanction an all-round boost in freight rates, and the other is to meet the deficit by taxation. A raise in rates would increase the revenue of roads which have demonstrated they do not need it while the latter method does not make for efficiency in management of such a gigantic public enterprise as the Government roads. The Government will be obliged to choose one road or the other and will be wrong whichever way they turn.

## Talking the Country Into Debt.

It seems to us about time that Provincial Legislatures and the House of Commons at Ottawa voluntarily put legislation into effect to curb the long speeches that have become so common in the proceedings of our legislative bodies. Debates such as the debate on the address in reply to the speech from the Throne and in a great many instances, also, the budget debate commonly consume far too much time. The former debate, especially is of practically no importance to the average citizen, while its parliamentary significance has been unduly emphasized. Very few men can advance more ideas in an hour than they could in half that time if they knew that they did not possess the unlimited indulgence of the House. The leader of each group in the House is undoubtedly entitled to practically what time he wants, because he should be able to speak authoritatively for his followers on most and particularly on all general subjects. Once he has put his party or group on record there should not be much excuse for long speeches by other members. We strongly believe that any member who can add anything to the debate should be given the opportunity, but it is only too evident that many members now speak for one or more hours without adding anything of value to what has been said.

Legislation is necessary that will prevent any debate from being drawn out for more than a certain length of time and that would prevent any member, aside from leaders of the Government or opposition groups, from speaking for more than twenty or thirty minutes. Some men can tell all they know about the subject in hand in less than half an hour, but custom permits them to digress to a very unreasonable degree. That these long speeches are very tiresome to other members and of absolutely no importance can be quite readily concluded by watching the House empty itself as a long speech wends its weary way along; and also by noting the fact that in many cases, once a member has, so to speak, done his duty by his constituents, he leaves the House and may not be seen again for days. Where a bill is being defended or opposed there may be and often are mitigating circumstances, but here, too, the time of the House is frequently wasted. The rules of the House should be made stringent and only allowed to be suspended by unanimous consent.

It is not argued that there should be a curbing of free speech. Far from it. What is needed is efficiency in legislative proceedings and a strong bit on the actions of the irresponsibles in the peoples' parliament. Long speeches cost money. Daily press reports state that the special session last fall of the House of Commons cost the taxpayer more than \$900,000 and that of this amount less than two thirds was made up by sessional indemnities to members. Even this amount of \$580,000 was unpardonable but we desire merely to show that other expenses are very high. The Provincial Legislature in Ontario that is now talking its way into spring seeding must be doing so at considerable needless expense to the Province. That the Government could not prevent it this time need not be a sufficient excuse for allowing it to happen again.

## Spraying in 1920

To spray or not to spray is the question that will confront many small fruit growers this season when their orchards are operated in connection with other lines peculiar to mixed farming. The cut-and-out fruit grower has no alternative. He must spray, and spray thoroughly, in order to comply with the demands of the market for clean fruit. The farmer fruit-grower is in a different position. He may figure that a small revenue from the orchard will yield him a greater profit than would a larger revenue derived after neglecting other branches of the farm. We must admit that this question can be answered only by the farmer himself. The shortage of labor has curtailed the oper-

ations on many farms; but this we do know, there is a great deal of satisfaction in producing clean fruit, if it is produced at all, and that nowadays insect pests and fungous diseases can only be combatted successfully with the spraying outfit. Young orchards should not be neglected, and any time expended on older orchards to keep them from becoming thickets and harbors for pests and fungous diseases will be profitably spent. We reproduced the revised Spray Calendar in last week's issue, and fruit growers will find it a very complete guide in all their spraying operations. The various steps should be taken in strict accordance, as nearly as possible, with the recommendations in the Calendar. Success depends on doing the work when it should be done, and doing it thoroughly.

## System in Seeding.

At time of writing some grain has already been sown, and, with a continuance of the present spring weather, seeding will soon be quite general. Yet, while conversing with a farmer the other day regarding the fields he was going to crop and the varieties of grain he purposed sowing, we were informed that he had not fully decided on what grain he was sowing or what fields he would seed down. It was a case of lack of system, gross carelessness, or procrastination. These three traits of character are responsible for more failures than all others combined. If there is any business in which these may be allowed sway, it certainly isn't farming. There never was a time when system and attention to details were so much required on the farm.

If, through lack of preparation, a person falls behind in the spring, it is difficult to catch up through the season and we know of nothing so depressing as to have one job urgently requiring attention before the other is half finished.

Where a crop rotation is followed, one usually knows several years ahead just what crop will be sown in a certain field in a certain year, provided, of course, that the clover has caught satisfactorily. But even where a regular rotation is not followed, one should have an idea where the different crops are to be sown. This is essential in order that the necessary seed, fertilizer, etc., be in readiness. Failure to get a catch may upset the best-made plans and make changes necessary, but there are fewer failures in crops where system is the keynote than where irregularity runs riot.

Procrastination is the cause of seed grain not being cleaned until the last minute; machinery not repaired when it is needed in the field; grass seed not home from the warehouse, etc. These things may be on a person's mind all winter, but, with the idea of another day coming, the work is put off until the snow has disappeared and the drying soil is calling for tillage implements to pulverize its surface. Even with work well in hand, there are numerous tasks which require attention.

There are other things which are attended to on well-regulated farms; for instance, the chop bins are filled, the box stalls cleaned, wood cut, etc., so that the main work of the season—that of getting the seed in the ground—may not be interfered with.

With the scarcity of labor, horsepower must be utilized to its utmost. One man can handle a three or four-horse team, and with wide implements is able to accomplish almost as much as two men used to with a span and small tillage implements. Then, too, it is quite feasible to attach one implement behind another, as the harrows behind the cultivator or roller. The double disk is also a time-saver. It is important that the seed bed be well prepared. Neglect may be the forerunner of crop failure. It is much more advisable to do the work properly than to put the seed into a poor seed bed, in order that one may be first to finish seeding. Nature may be kind, but she will not make up entirely for man's negligence.

# The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

Published weekly by THE WILLIAM WELD COMPANY (Limited).

JOHN WELD, Manager.

Agents for "The Farmer's Advocate and Home Journal," Winnipeg, Man.

1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday. It is impartial and independent of all cliques and parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers of any publication in Canada.
2. TERMS OF SUBSCRIPTION.—In Canada, England, Ireland, Scotland, Newfoundland and New Zealand, \$1.50 per year, in advance; \$2.00 per year when not paid in advance. United States, \$2.50 per year; all other countries, 12s. in advance.
3. ADVERTISING RATES.—25 cents per line, agate, flat. Live-stock advertising rates given on application.
4. THE FARMER'S ADVOCATE is sent to subscribers until an explicit order is received for its discontinuance. All payment of arrearages must be made as required by law.
5. THE LAW IS, that all subscribers to newspapers are held responsible until all arrearages are paid, and their paper ordered to be discontinued.
6. REMITTANCES should be made direct to us, either by Money Order, Postal Note, Express Order or Registered Letter, which will be at our risk. When made otherwise we will not be responsible.
7. THE DATE ON YOUR LABEL shows to what time your subscription is paid.
8. ANONYMOUS communications will receive no attention. In every case the "Full Name and Post Office Address Must be Given."
9. WHEN A REPLY BY MAIL IS REQUIRED to Urgent, Veterinary or Legal Enquiries, \$1.00 must be enclosed.
10. LETTERS intended for publication should be written on one side of the paper only.
11. CHANGE OF ADDRESS.—Subscribers when ordering a change of address should give the old as well as the new P. O. address.
12. WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch printed matter. Criticisms of Articles, Suggestions How to Improve "The Farmer's Advocate and Home Magazine," Descriptions of New Grains, Roots or Vegetables not generally known. Particulars of Experiments Tried, or Improved Methods of Cultivation, are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.
13. ADDRESSES OF CORRESPONDENTS ARE CONSIDERED AS CONFIDENTIAL and will not be forwarded.
14. ALL COMMUNICATIONS in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.

ADDRESS—THE FARMER'S ADVOCATE, or THE WILLIAM WELD COMPANY (Limited), London, Canada.

## A Dry Subject.

BY ALLAN MCDIARMID.

I'm not much of an advocate of going back to old methods and manners, but there's such a thing as taking a look backward once in a while and getting a hint from the ways of the generations of the past.

What I have in mind, just now, is the old-fashioned apple-paring-bee of thirty or forty years ago, and its connection with a modern industry of more importance to this country than most of us have yet any idea of.

The old paring-bees were, more or less, an excuse for some sort of a social evening, ending up with a big midnight supper. But there was, generally, a good deal of work done, even if some of the cores were left in the apples, and the witness of this fact was the appearance of the farmhouse kitchen for a couple of weeks afterwards. The strings of drying fruit hanging from the ceiling would almost make one think of the parlor decorations for an up-to-date, Twentieth century, wedding.

Aside from our subject, there isn't much doubt but that these paring-bees brought about a large number of weddings, all right. They were a profitable institution from this standpoint alone.

But we will have to go still further back to find the original fruit-dryers of this country. As the North-American Indian was the first to make maple sugar and syrup, which he did by heating stones red-hot and dropping them into the maple sap, so we will have to give to him the credit of being the first to preserve his fruit and vegetables by taking the surplus water out of them. He probably did this with the help of the sun and the wind, but at any rate he gained his purpose, and if the hunting failed he could winter on evaporated blackberries and dried-apple pies.

But now, in this age of invention, we are beginning to hear of improvements that are being made on the Indians' method, and on that of the last-century paring-bee. The process of drying fruit and vegetables, as it is being carried on in some of our towns and cities to-day, is known by a word that would have been likely to scare an Indian or, in fact, any one but a German, possibly. It is Dehydration.

Having spelled the word the next thing is to define it more clearly. Dehydration is simply the process of removing the greater part of the water that is naturally in fruits and vegetables and making it possible to preserve them for years, while at the same time retaining their original flavor and odor. Even the natural appearance is restored when these dehydrated products are placed in water.

This industry is just the experimental thing, and it needs development. Plants are in operation in different parts of Canada and the United States, and they have made a success of drying such things as potatoes, carrots, turnips, radishes, parsnips, onions, sprouts, pumpkins, radishes, beans, peaches, and

corn on the cob. In the fruit line they have dried raspberries, blackberries, rhubarb, pears, peaches, apples, prunes, apricots and bananas. The range seems to be wide enough to suit the taste of the majority, at least.

At most of these establishments the raw material is delivered direct from the farm, by the grower, so that it may be absolutely fresh. It is then cleaned, peeled and sliced by machinery. Next it is put on large trays and given a sort of steam bath, which has the effect of preserving the color, to a certain extent. Finally it is carried into what are called "dehydration tunnels" where it remains for a number of hours, or until it has been sufficiently dried. All that now remains to be done is the packing and shipping.

We have all heard dozens of remedies prescribed for the high cost of living. What's the matter with dehydration as another cure? It's a good-looking proposition and seems to be accompanied by an all-round saving of expense. It is time the canning industry, in so far as fruits and vegetables are concerned, took a back seat. What is the sense of our buying tin cans, paying nearly as much for them as we do for what is in them, and then throwing them out into the back-yard to be an eyesore and a nuisance indefinitely?

And after we have emptied out our can of tomatoes, or whatever it may be, what have we got? Probably at least fifty per cent. water. Why should the railroads be called on to transport water all over the country when every house-wife has all she needs in her own kitchen? Cars are too scarce and freight rates are too high to make dividend paying possible on a business of that kind. Let us get rid of this surplus water as close to the point of production as possible and cut down on the freight bills. Perhaps, then, we shall be able to get cars when we want them for other things.

What was a ton of peas will, when canned, weigh 4,000 pounds. When dehydrated it weighs only 250 pounds. One car would carry as much potatoes in the dried form as we now require ten cars for shipping them in their natural state. A ton of tomatoes, as they come from the field, will, after dehydration, weigh only 125 pounds. The average for the different fruits and vegetables, as they come from the orchard and garden, is about 1,700 pounds of water per ton. A man shouldn't have to be very wide awake to see where one of the profits of dehydration comes in.

Then it has been estimated that at least forty per cent. of all the perishable food-stuff that is grown in this country every year is lost. Sometimes through over-production but more continually by spoiling in the time that elapses between leaving the producer and reaching the consumer. By drying the stuff both these losses would be overcome. For instance, an unusually good crop of potatoes would simply be held over, in case prices were low, until the demand was better. Dehydrated potatoes will keep for a hundred years, judging by indications. They will neither sprout, rot nor freeze.

Here's where the big reduction in the cost of living ought to come in. All that is produced can be saved until the consumer has developed an appetite. Storage plants will be all that we will need. And comparatively small ones at that.

With dehydration we will have the world for our market and there would be an end to the peculiar conditions that make it possible for us to read in our newspapers of whole countries being on the edge of starvation in one part of the earth while other lands, it may be our own, have an over-supply that cannot be shipped because of the distance, or from lack of cargo space.

There never was very much money made in the water business. Even the milkman, who has been known to sell it occasionally, can tell us that. The fine he paid ate up his profit. And if we continue much longer to pay fines in the shape of extra freight charges and limited markets, to say nothing of the occasional complete loss of our produce, all due to this surplus of water we harvest every year, future generations are going to have the laugh on us. The progressive Twentieth Century has still the chance to make her good name better, and she will find that Efficiency is the best driving mate that she can hitch up with to progress if she really wants to get over the ground.

## Nature's Diary.

By A. BROOKER KLUGH, M. A.

Spring at last! The year of the naturalist has begun, for this year begins with the first days of spring, with the return of the earliest birds, with the bursting of the first buds, and not with January 1.

The Robins, Bluebirds, Song Sparrows, Bronzed Grackles, Killdeer and other birds have arrived, and each day sees more familiar species back in their haunts once again.

For the very earliest flowers we must look, not on the ground, but on the trees, as Red Maple and Soft Maple, are the species which lead the floral procession of the year.

The flowers of the Red Maple come from buds which lie beside those from which later on the leaves will develop. Most of the flowers are either staminate, (that is, only stamens) or pistillate (containing pistils and stamens). The flowers are red, and hence in early spring this tree with its reddish flowers and reddish coloration as attributed by its leaves in early autumn.

The flowers of the Soft Maple resemble those of the Red Maple in the matter of arrangement of stamens and pistils, but they are yellowish in color and have

One of the most characteristic sounds of spring is the voice of the Spring Peeper, (*Hyla crucifer*). The high piping chorus, which comes from every swale, pond, pool and ditch, is usually attributed to frogs, but it is quite commonly believed to be uttered by the large frogs which are to be seen about such places in the spring, and not by this diminutive musician, the smallest of our amphibians. The Spring Peeper is a tiny tree-frog, from three-quarters of an inch to an inch and a quarter in length. Its color varies from light fawn to dark brown or ashy-gray, and it has a darker oblique cross on the back. The fingers and toes have broad discs at their tips, and these discs secrete a sticky substance which enables the tree-frog to cling to vertical surfaces with ease, even to such smooth surfaces as shiny leaves or panes of glass.

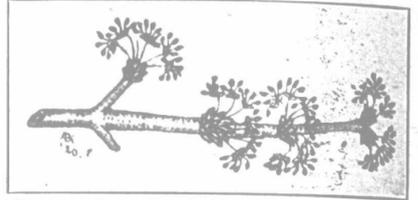


Fig. 1. Staminate Flowers of Red Maple.

The Spring Peeper is a true "tree-frog" as far as its habits go later in the season but in the spring, like all the other frogs, it resorts to the water to lay its eggs. The eggs are fastened either singly, or in little groups, to plants in the water. They are one-twelfth of an inch in diameter, the upper portion being dark and the lower portion creamy white. The tadpoles hatch in from six to twelve days, depending on the temperature of the water and are full-grown in from six to seven weeks. The tadpoles may leave the water on short excursions before their tails are completely absorbed and are still quite long. By the end of June their tails are completely absorbed and the tadpoles leave the water, henceforth to return only in the spring to breed.

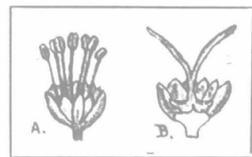


Fig. 2. Flowers of Red Maple.

A. Staminate flowers. B. Section of pistillate flower.

Abundant as are these little musicians they are not at all easily discovered, for as we approach a spot from which their piping chorus is rising in its full strength a sudden silence falls in our immediate vicinity, though from a little distance the chorus comes as loudly as ever. We can look as closely as we like along the margin of the pool, but we are not likely to be rewarded by a glimpse of a *Hyla*, for in addition to being very small they are expert hiders. In fact the only way in which we can watch them singing is to take a flashlight or lantern and visit their haunts at night, for they seem to have no fear of a light and we can then watch them as closely as we like. We shall then see that when a *Hyla* is calling its throat is distended into a large transparent sac, about one-half the size of the head and body together. The piping "Pe-eep—pe-eep—pe-eep" of this species is pitched in the key of F minor, and the note E slurred to F three octaves above middle C.

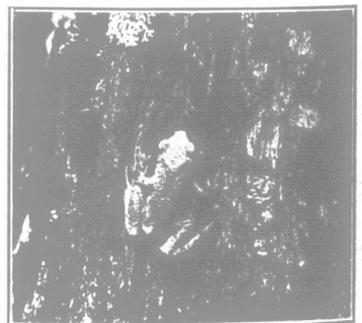


Fig. 3. The Peeper on a Stump.

From July to October the Spring Peeper is to be found in the woods, sometimes on the ground, but more usually on the trunks and branches of trees, and often at considerable heights, such as from forty to sixty feet from the ground. At this season, and particularly in damp weather it frequently utters a series of squeaking notes, which but faintly resemble its spring song, and which are usually variously attributed to some bird or insect. After one has called, another and another usually take up the song, and it is from these notes, which come from all directions, that we are able to realize the abundance of *Hyla crucifer* in the woods. If we depended on the number of Peepers we saw in the woods for our estimate we should not reckon it as a very abundant species, for it is extremely hard to find one of these diminutive frogs on a tree. This is in large part due to the fact that this species, like many other frogs, can assume various colors to match the object on which it is situated. At one time an individual may be light yellowish fawn, and an hour later it may be dark reddish-brown.

At the end of October this species hibernates under leaves or moss in the woods, to awaken next March and become again the little musician "of the pools."

## Starting

As the time field to do a may be consc worked more o be in condition spent several idleness, and it should be gra being given re ration gradual precautions ha animals be youn or older ones th unreasonable to day's work at admit that the proportion to t same time exp in the feed giv ment, even tho ately increased; been idle and suddenly give labor. Not on account of th ders, being ura are very liabl formation of ab utility greatly suspended.

In such case with a small a The amount of grain given sh team is taken I it is necessary collars, fits pro be kept perfe condition unde it is always go shoulders with fact, it is good as the state of t sary, at all tim to remain unde After going a fo seeder, harrow, be allowed to st forward on the sh air upon the sh good practice if they are not has probably before starting, position, care be between the sh given frequentl less frequent an the grain ratio should be taken stable, even for should be clean the shoulders s two or three t flattening of th muscles of the s too large, a pro a sweat-pad wo become tougher general muscul customed to pe digestive and o force without s to do a full day at first, the sh or less trouble of agony to th The horse shoul ed water as freo a horse shoul are some horse trouble if wat individuals of exceptions the allow water be in warm weath well to allow hi him to the field state. Although h three times d less discomfort allowed at l especially in is like his driv and, with few horses have lo shed readily. of the quantity In such cases i a clipped hors case, and on b a long coat, regard to clo weather shoul easily groomed more comfort, if properly lo

## THE HORSE.

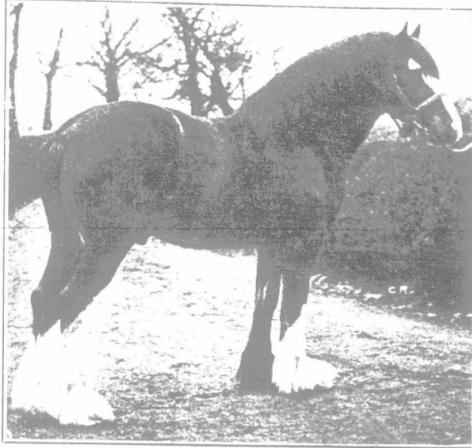
### Starting Unprepared Horses to Work in the Spring.

As the time is near when horses will be taken to the field to do a day's work, a few remarks on the subject may be considered timely. Some horses have been worked more or less constantly all winter, hence should be in condition to continue their labors, but others have spent several months in comparative or complete idleness, and it is of those we wish to speak. Horses should be gradually prepared for regular work, by being given regular exercise and having their grain ration gradually increased, but in many cases these precautions have not been observed. Whether the animals be young horses that never have performed labor, or older ones that have spent the winter in idleness, it is unreasonable to expect them to go out and do a full day's work at first. They are not "fit". All will admit that the grain ration of a horse should be in proportion to the amount of work performed. At the same time experience teaches us that violent change in the feed given is very productive of digestive derangement, even though the labor performed be proportionately increased; hence it is dangerous, when a horse has been idle and fed accordingly for a few months, to suddenly give largely increased rations and increased labor. Not only is there danger of digestive troubles on account of the violent change in food, but the shoulders, being unaccustomed to pressure by the collar, are very liable to become scalded and sore or to the formation of abscesses or tumors, and thereby have his utility greatly decreased, if not for a time entirely suspended.

In such cases it is better to go slowly, to be satisfied with a small amount of work for the first few days. The amount of work performed and the amount of grain given should be gradually increased, and when the team is taken to the field it should be worked gently. It is necessary to see that the harness, especially the collars, fits properly, and that their bearing surfaces be kept perfectly clean. In most cases, horses in the condition under discussion have long coats of hair, and it is always good practice to clip the portions of the shoulders with which the collars come in contact. In fact, it is good practice to clip the whole body as soon as the state of the weather will permit. It is also necessary, at all times, to see that the mane be not allowed to remain under the collar when the horse is working. After going a few rounds, whether to plow, cultivator, seeder, harrow, or other implement, the team should be allowed to stand for a few minutes, the collars lifted forward on their necks, in order to allow circulation of air upon the shoulders, and thereby cool them. It is good practice to hand-rub the shoulders, especially if they are not clipped, in order to loosen the hair that has probably become more or less matted. Then, before starting, the collars should be lifted back into position, care being taken that none of the mane is left between the shoulder and collar. This rest should be given frequently the first few days, gradually becoming less frequent and of shorter duration day by day, and the grain ration proportionately increased. The harness should be taken off every time the team is brought to the stable, even for a short time. The facing of the collar should be cleaned regularly, and if the weather is warm, the shoulders should be well bathed with cold water two or three times daily. If, from compression and flattening of the collar, a lessening in the size of the muscles of the shoulder, or any cause, the collar becomes too large, a proper fitting collar should be substituted or a sweat-pad worn. In this way the shoulders gradually become toughened without soreness or scalding, and the general muscular and respiratory systems become accustomed to performing their increased functions; the digestive and circulatory systems also acquire greater force without suffering, and the horses are soon able to do a full day's work; while, if too much haste be made at first, the shoulders become sore, and will give more or less trouble during the whole season, and be a source of agony to the horse and annoyance to his driver. The horse should be well groomed twice daily, and allowed water as frequently as convenient. Many claim that a horse should not be allowed water after a meal. There are some horses that are liable to suffer from digestive trouble if water be allowed shortly after eating, but individuals of this nature are rare, hence with rare exceptions the practice is wise and safe. We like to allow water both before and after meals. Especially in warm weather a horse is thirsty after eating, and it is well to allow him to quench his thirst, rather than take him to the field and work him four or five hours in this state.

Although horses acquire the habit of drinking but three times daily, better service would be given, and less discomfort suffered by the horse, if water could be allowed at least once between meals. This applies especially in hot weather. A horse, in this respect, is like his driver, when he is thirsty he "wants a drink," and, with few exceptions, should have one. Many horses have long, heavy coats in the spring and do not shed readily. Such perspire very freely, and on account of the quantity of hair, will remain wet for a long time. In such cases it is advisable to clip. It will be found that a clipped horse will perform his work with much more ease, and on less feed in warm weather, than one with a long coat. Clipped horses require greater care in regard to clothing and exclusion from drafts if the weather should become cold, but they are much more easily groomed, and perspire less, hence will be much more comfortable and give more satisfactory service if properly looked after.

W.H.P.



Craigie Litigant.

Winner of the supreme championship at the Glasgow Show, Scotland, in 1920.

## LIVE STOCK.

Better live stock will help increase returns on that high-priced land.

Keep the stock confined to the yard until the ground firms and the grass gets a good start.

More good herdsmen are needed to look after Canadian herds. There is a splendid opportunity in this line for young men who like stock.

Keep the stable well ventilated. Stock frequently go off their feed at this time of year when the atmosphere in the stable becomes oppressive.

Sow a small acreage to rape this spring so as to provide pasture for the hogs. Sowing at intervals of a few weeks will lengthen the feeding season.

A pure-bred, high-quality calf is a very good companion for the boys and may so interest them in good live stock that they will have no desire to leave the farm.



Geo. B. Rothwell.

Recently appointed chief of the Animal Husbandry Division on the Experimental Farms.

When shipping live stock it is important that the animals be made as comfortable as possible. Plenty of straw in the car is essential and feed should be provided.

H. D. Thompson, of Lampton County, writes that a litter of 9 pigs farrowed on September 1 were shipped on February 26, and weighed 2,300 pounds. This is an extra good gain.

When taking live stock to market remember that abusing it injures the meat and causes greater shrinkage. Handle the stock previous to shipping so that it will arrive at the market in good condition.

Watch for venen in the pigery. At this time of year these pests increase rapidly and are distressing to the hogs. Give the pens and pigs a thorough spraying with some coal tar product, or apply oil to the pigs' bodies.

A sheep club has recently been formed on Manitoulin Island. There were 20 applicants for membership, and each member was supplied with an Oxford-Down ewe. The boys and girls gave a seven-months note at six per cent. to local branch of the Merchants Bank. The

chief aim in organizing the club was to interest the boys and girls in pure-bred sheep.

As warm weather comes on more care must be taken in cleaning the pails used for feeding those calves. Unless scalded frequently milk adhering to the sides soon sours and this is one cause of indigestion and scours in calves.

### Live-Stock Judging.

EDITOR "THE FARMER'S ADVOCATE":

Never, before in the agricultural history of Canada has there been so much interest shown in the subject of live-stock judging as at present. Besides the regular annual short course conducted by the Agricultural Representative there have been, in many counties, numerous five-day courses in stock judging alone. While these undoubtedly are having a beneficial influence, yet in some cases we cannot but think that their practical value is being depreciated, largely by the fact that in certain classes of live stock at our larger fairs utility and show type are very far apart. Show type at any time is but the opinion of a class of breeders who have their own ideas as to what they desire in an animal. Thus we find that judges disagree; decisions are sometimes reversed, and often the type changes every few years.

The Hackney horse of earlier days was not quite so stylish as our present-day steppers, but carried more weight and had considerably stronger bone, and consequently was able to stand more work. While this change of type is perhaps not very important, considering that utility is not altogether lost at present, still if carried to the extreme it would result ultimately in the ruin of a good breed of horses.

Perhaps the most dangerous difference in utility and show type occurs in dairy cattle. Here we have animals that must work to be profitable. With that ability to work we desire a reasonably good conformation, but it can truly be said that beauty, smoothness and symmetry of form are over-emphasized in the larger show-rings at present. We have seen cows with little constitution or capacity placed over cows that were heavy producers, because they had a trifle straighter top-line or were a little smoother. While at no time should common, rough cows be tolerated as show cows, still it would be to the advantage of breeders of dairy cattle and judges to at least emphasize strength and capacity considering that without these no cow can be useful. This difference in type is very confusing, especially to men who are not following the exhibitions.

We have heard the question at several short courses, "why do you place a cow that can never be a heavy producer over a cow that is a real producer and is not especially weak anywhere?" It is a hard question to answer. When we must admit that show type is far different to utility type, it is time we changed the recognized show type. We have heard men say that courses in stock judging should enable the student to select good stock for himself. Recently at a short course we saw a very clear case where out of four cows the heaviest producer was placed down while other cows with less ability to produce were placed up, and the judging conformed to that done in our larger exhibitions. In this case it was obvious that if the boys at the course went out to select cows for their dairy herds, keeping in mind what they had seen, they would select cows that would scarcely be profitable. A balance must be struck between the two types existing at present.

What is true of dairy cattle is true to a greater or lesser extent of other breeds of animals. In poultry there is a clear definition of types. In beef cattle there is perhaps the least difference. As a rule an animal that wins in a show-ring is best from the standpoint of utility.

Finally it can be truly said that the sooner we get our show type as near as possible utility type, the sooner we will make progress in live-stock breeding, and the sooner we do make progress the better for us as individuals and the better for Canada as a nation, that must of necessity be agricultural if prosperity is to prevail.

Wentworth Co., Ont.

CHARLES M. FLATT.

### Promotions Within the Experimental Farms System.

Recently two important promotions have taken place within the Experimental Farms System. George B. Rothwell, who has been acting Chief of the Animal Husbandry Division since the spring of 1919, has been promoted to the position of Dominion Animal Husbandman. In 1912 Mr. Rothwell joined the staff at the Experimental Farm as assistant to E. S. Archibald, who was then the Dominion Animal Husbandman. He graduated from the Ontario Agricultural College with the class of 1905. His practical experience with high class, pure-bred stock on his home farm, and the work he has done on the Animal Husbandry Division, have prepared him well for the position which he now enters upon.

N. D. MacKenzie, who joined the staff at the Indian Head farm in 1917, and who for some time has been Acting Superintendent of that farm, has recently been promoted to the position of Superintendent.

**Shorthorn Pedigrees.**

BY GEO. E. DAY.

To the average Shorthorn breeder a Shorthorn pedigree is either "straight Scotch" or "plain." A straight Scotch pedigree, of course, is one which traces in all its lines to Shorthorns bred in Scotland, whereas the so-called plain pedigree is usually one which traces back on the side of the dam to a cow imported from England in the earlier days of Shorthorn breeding in Canada. It is true that there are some plain pedigrees which trace back to a cow bred in Scotland many years ago, but sires of mixed breeding have been used for generations, so that the pedigree cannot be called straight Scotch.

Scottish breeders have attained such a high reputation as Shorthorn breeders that there is small wonder their cattle should receive favorable recognition, provided of course, that the individual animal measures up in point of excellence, to some degree at least, with the best Scotch cattle. But it is hard to justify the selection of an inferior individual simply because it is of straight Scotch breeding, and the rejection of individuals of high merit because all lines of ancestry do not trace back to Scotland.

It is true that we have in Canada and the United States many Shorthorns which are properly called plainly bred, for the reason that the breeders have been men who never invested in really high-class sires, and who were not particular as to the blood represented in the bulls they used. Such animals are properly called plainly bred, no matter whether they are of Scotch or English extraction. On the other hand, we find animals of high merit where the best blood of the breed has been used for generations by our best breeders, which are called plainly bred simply because the dam traces back to an English importation made many years ago. To illustrate this point the pedigree of the young bull "Sultan's Perfection" is given below.

of Prime Favorite (imp.), a Toronto grand champion in his day.

The dam of Sultan's Perfection is half sister to Sultan Choice, her sire being Lavender Sultan, whose breeding has been noted. Therefore, Sultan's Perfection carries four crosses of Whitehall Sultan, two on the side of his sire and two on the side of his dam.

The third sire is Prince of Archers (imp.), a bull of the best Scotch blood, and one who proved himself to be an excellent sire. The fourth sire is Prince Louis (imp.), belonging to the Lancaster family, and carrying in his blood the very best Scotch blood. He also proved to be a very successful sire.

Next comes Prime Minister (imp.), bred by Wm. Duthie. The name of his breeder is sufficient guarantee as to the blood he carries, and he proved to be a most successful sire.

Next to Prime Minister comes his half brother, Guardsman (imp.), also bred by Wm. Duthie. It is worthy of note that Guardsman was the sire of the great show bull St. Valentine. No apology need be offered for this bull either in breeding or performance.

The seventh sire is Albert (imp.), bred by Sylvester Campbell. His sire is Vermont, and he carries the very best blood of the breed. He also proved to be an excellent sire.

Below these bulls of Scotch breeding we find bulls of English blood, mostly Bates.

Sultan's Perfection is said to be plainly bred, because on the side of his dam he traces back some eighteen generations to the imported English bred cow Annabella =16=, but through seven generations he has received the very best Shorthorn blood existing in Canada, the United States and Great Britain. It would be difficult indeed to find a bull, even in Scotland, with seven better bred sires than those appearing without a break at the top of this pedigree. There must surely be something wrong with our method of valuing Shorthorn

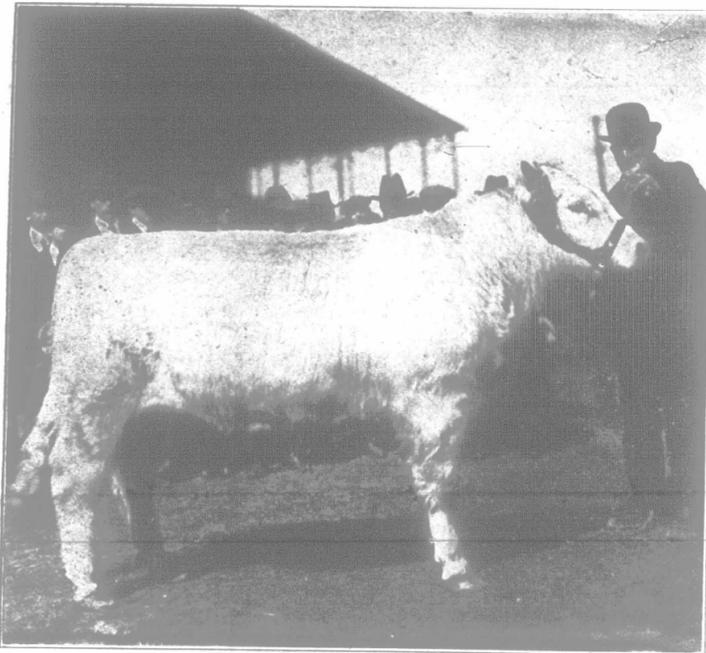
breed if we would pay more attention to the quality of the sires appearing in a pedigree and less attention to the foundation cow from which the family is descended. Some day we will probably learn this lesson, and the sooner we admit the fact that good breeding is good breeding no matter where it is done, the better it will be for the breed.

There is one redeeming feature in connection with our methods of estimating Shorthorn pedigrees, and that is the fact that straight Scotch Shorthorns of high merit are widely distributed, and consequently while we may feel that a great injustice is being done to many really well-bred cattle, there is little danger of any deterioration in the quality of the breed. Shorthorn breeders are not restricting their selection within one or two families, as occurred during the Bates boom of years ago, but they are admitting to public favor all Shorthorns of Scotch extraction, no matter what families or line of breeding they may represent. It must be admitted, however, that progress in Shorthorn breeding would be facilitated by placing all really well-bred Shorthorns upon a par, regardless of whether their remote blood lines take us back to Scotland or to England.

**The Trials of the Importer.**

BY D. B. MCEWEN, MIDDLESEX CO., ONT.

It is customary, when we desire to raise the status of our flocks and herds in Canada, by the use of superior sires and matrons, that such animals come from Great Britain or Ireland. Strictly speaking, importing is the purchasing and transportation of an animal or goods from a foreign country, but when applied to live stock it is naturally associated with a pleasant trip to the British Isles, the selection of animals and their consequent shipment to Canada, without taking into consideration the financial risk, trouble and worries which



**Sultan Hero.**

Winner of senior bull class at Western Ontario Shorthorn Sale. Shown by J. T. Gibson, Denfield.



**Rosemary.**

Champion Shorthorn heifer at Western Ontario Sale. Exhibited by Geo. Gier & Son, Waldemar.

SULTAN'S PERFECTION =13233S=  
 DAM SIRE  
 Sultan Choice =107452=  
 Silver Queen =114708=. Lavender Sultan =84075=  
 Fairy Maid =84524=. Prince of Archers (imp.)  
 =60861=  
 Lavinia Lass =55699=. Prince Louis (imp.)  
 =32082=  
 Lavinia =55698=. Prime Minister (imp.)  
 =15280=  
 Humber Fairy =35438=. Guardsman (imp.) =18956=  
 Fairy's Flower =23600=. Albert (imp.) =2668=  
 Fairy May =9057=. Prince Inglewood (imp.)  
 =1283=  
 Fairy Circle =988=. Count Grindelwald (imp.)  
 =60=  
 Fairy Girl =990=. Louden Duke =803=  
 Fairy Gem =989=. Duke of Bourbon =507=  
 Fairy =987=. Prince of the West (imp.)  
 =203=

Tracing back seven more generations to the imported cow Annabella =16=, bred by J. Wetherell, Brompton, England, and imported in 1823.

Let us look into this pedigree a little. The sire of Sultan's Perfection is Sultan Choice, a son of Lavender Sultan. Lavender Sultan is a son of that excellent breeding bull Superb Sultan, by the great Whitehall Sultan. In addition to this the dam of Superb Sultan is a daughter of Avondale, perhaps the most illustrious son of Whitehall Sultan. It will be seen, therefore, that Sultan Choice carries two crosses of Whitehall Sultan on the side of his grand-sire, Superb Sultan. Further, the sire of Sultan Choice is Prince of the West, a daughter

pedigrees when a bull of this breeding is classified as plainly bred.

Attention might be called to the fact that in Great Britain a man can start with a grade Shorthorn cow, and, after using pure-bred sires for four generations, can record in Coates' Herd Book the female descendants of this grade cow. The fifth cross makes the male descendants eligible for registration, and if an animal of such breeding were brought to Canada from Scotland it would be accepted for registration in our Herd Book, and rated as of straight Scotch breeding. In the sale ring such an animal would outsell an animal of equal merit as an individual bred along the same line as Sultan's Perfection. The straight Scotch bull would have five crosses of Scotch bulls in his pedigree with a grade Shorthorn cow for foundation on the side of his dam, but Sultan's Perfection has seven richly bred Scotch bulls at the top of his pedigree and runs back through nearly twenty generations of recorded animals on the side of his dam, and further than this, the English blood which he carries was the very best blood of its day. If Sultan's Perfection is plainly bred, where can we hope to find well bred cattle?

There are many other Shorthorns in Canada and the United States with breeding similar to that of Sultan's Perfection, which are consequently dubbed "plainly bred." Sultan's Perfection is used merely as a striking example of a really well-bred animal which is not appreciated, and it must not be supposed that this is an isolated case by any means. How this evident injustice is to be overcome is not clear. So long as our customers demand animals of straight Scotch breeding we are practically compelled to furnish them with what they desire, but it would be a good thing for the Shorthorn

importer encounters. In the sheep business, with which the writer had some experience, very few importers have made any remuneration worth while, and only then when they are breeders here of the line of stock which they brought over. It is not the writer's desire to discourage anyone who may have a desire to try importing, but rather to give a fair estimate of the risk, restrictions, and difficulties encountered in England during the ante bellum period.

It is essential before leaving home that your plans be well formed. You estimate the number of sheep which you intend to purchase and their cost, the cost of shipping to the boat and their space on board, with necessary feed, and then a rough estimate of your own expenses. After allowing for travelling, hotels and incidentals, you arrange with your bank to have the estimated amount required placed at your disposal at a banking in the city in the British Isles where you propose having your headquarters.

Your headquarters should be located in some city where you will be centrally located for buying from the flocks you have in mind, and it will serve as a permanent address where all mail or wires will reach you. Also, to be safe, leave about a fifty-per-cent. margin on the money you estimate to need, as it is impossible to keep within the limit which you set. Last but not least, you require a passport and reservation for passage across to England, both of which are sometimes difficult to obtain on short notice. When leaving you state that you will be back at a certain time, but, from others' experience, you should make this very indefinite so as not to give the impression later that you are just stopping in England for a pleasure tour.

You may or may not enjoy ocean travel, but in any

case land will  
 Naturally you  
 you go to the  
 arrangement  
 given points  
 with the bre  
 will give yo  
 list of the b  
 upon a flo  
 sheep you a  
 you will be  
 and rams, fo  
 you arrive  
 hurdled in  
 which are b  
 be shown to  
 may not pl  
 priced at a  
 other sheep  
 but they ar  
 bred sale  
 ewes which  
 breeding flo  
 leave witho  
 had. The f  
 and you fin  
 you want, a  
 you had set  
 few sheep n  
 purchased i  
 means of tra  
 to some ext  
 selected and  
 past, as heal  
 and space  
 sheep are p  
 have them  
 with sire a  
 stating the  
 numbers wi  
 the part of  
 Canadian p  
 five months  
 English ped  
 for the shee  
 All sheep fo  
 veterinarian  
 ment declar  
 the sheep fr  
 from the o  
 disease, nev  
 etc., signed  
 district. W  
 cars an aff  
 infected, an  
 area, must  
 accompany  
 for examina  
 boat. Natu  
 worry if the  
 tions, but y  
 trifles. A  
 Board of A  
 allow expor  
 You the  
 to procure  
 reserved for  
 time, and yo  
 purchased t  
 port one or  
 not uncomm  
 portation an  
 all probabl  
 that the sail  
 Upon wiring  
 orders, you  
 and arrange  
 for and fed  
 delays in sa  
 with feed fo  
 is well, but  
 of foot and  
 exports for  
 there are no  
 been unable  
 outbreak at  
 cancel all pr  
 some of the  
 and refund  
 loss financial  
 burden is lif  
 providing yo  
 case someon  
 several h  
 the writer w  
 fore an out  
 thrown over  
 The boa  
 are loaded i  
 quarantine,  
 quarantine  
 the boat sail  
 do not deve  
 the veterina  
 sheep that a  
 only by the  
 the sheep u  
 tagious to a  
 have know  
 several weel  
 all sore mou  
 extreme har  
 delayed till  
 for which th  
 Importin

attention to the quality of and less attention to the family is descended. From this lesson, and the good breeding is good done, the better it will

ture in connection with northern pedigrees, and notch Shorthorns of high and consequently while we is being done to many is little danger of any the breed. Shorthorn their selection within one ring the Bates boom of ting to public favor all to matter what families represent. It must be ss in Shorthorn breeding ng all really well-bred dless of whether their to Scotland or Eng-

### Importer.

SEX CO., ONT.  
desire to raise the status a, by the use of superior animals come from Great making, importing is the of an animal or goods en applied to live stock a pleasant trip to the animals and their conse- out taking into con- able and worries which



Gier & Son, Waldemar.

sheep business, with nce, very few importers worth while, and only ce of the line of stock not the writer's desire have a desire to try ir estimate of the risk, ountered in England

home that your plans number of sheep which cost, the cost of ship- on board, with neces- mate of your own ex- avelling, hotels and ur bank to have the d at your disposal at a les where you propose

located in some city ated for buying from ill serve as a perma- wires will reach you. y-per-cent. margin on as it is impossible to t. Last but not least, tion for passage across sometimes difficult to aving you state that me, but, from others, very indefinite so as that you are just stop- r.

an travel, but in any

case land will look like home and solid ground feels good. Naturally you wish to start buying sheep at once, and you go to the point which you had selected and make arrangements for all mail and wires to be forwarded to given points while buying. If not already conversant with the breeders of sheep, a visit to the breed secretary will give you the prominent ones, and quite often a list of the sheep which they have for sale. After settling upon a flock which you decide may have some of the sheep you are after, you wire the owner or agent that you will be there the following day to see yearling ewes and rams, for example, with the view of buying. When you arrive in all probability these sheep will all be huddled in pens ready for your selection, while those which are being kept are out of sight and may or may not be shown to you. The sheep which you came to see may not please you, or you may not consider them priced at a figure at which you can buy. Among the other sheep you see some yearling rams which you like—but they are not for sale; they are being held for the breed sale later, or are already sold. The yearling ewes which you would take are being held to add to the breeding flock and are not for sale, and you finally leave without buying, as the ones you like cannot be had. The following days are a repetition of the first, and you find it extremely difficult to secure the sheep you want, and only then at an advance upon the price you had set as a limit. You have purchased only a very few sheep now, and you realize that the rest must be purchased in a very short time. The customs and means of transport, being novel, hamper your travelling to some extent, but finally you have your full quota selected and purchased and the least of your troubles past, as health and custom regulations must be fulfilled, and space reserved on a boat to Canada. As the sheep are purchased, instructions should be given to have them registered on individual export pedigrees with sire and dam's name and number given, and stating the volume of the Flock Book in which their numbers will appear. Last year, through neglect on the part of the breeder to give full particulars, the Canadian pedigree for a ewe could not be obtained for five months, and only then after twice returning the English pedigree for fuller particulars. The pedigrees for the sheep should be forwarded to your headquarters. All sheep for export must be inspected by a qualified veterinarian at the farms and accompanied by a statement declaring them to be free from disease and also the sheep from that district or parish, and an affidavit from the owner declaring the sheep to be free from disease, never to have had foot and mouth disease, etc., signed before the Justice of the Peace for that district. When the sheep are loaded into the railroad cars an affidavit stating the cars are clean and disinfected, and that they will not pass through an infected area, must accompany them. These declarations must accompany sheep and be presented to the dock officials for examination before the sheep may be loaded on the boat. Naturally these things will cause delay and worry if the breeder is not conversant with the regulations, but you are becoming accustomed to such small trifles. A permit must then be obtained from the Board of Agriculture to cover all the shipment, to allow export from Great Britain.

You then feel that the only matter of importance is to procure space on a boat. If fortunate, space is reserved for you on a boat sailing for Quebec in a week's time, and you immediately wire the owners of the sheep purchased to have all sheep shipped so as to reach the port one or two days previous to the sailing date. It is not uncommon for a railroad strike to hold up transportation and some sheep may miss the boat, but, in all probability, at the last moment you are informed that the sailing has been postponed a week or indefinitely. Upon wiring the owners to delay shipment till further orders, you find half of the sheep already en transit and arrangements must be made to have them cared for and fed till the boat leaves. After several more delays in sailing, you finally have all the sheep loaded, with feed for the voyage, and you are assured that all is well, but there is always the chance of an outbreak of foot and mouth disease, which will put a stop to all exports for a period of at least three months—providing there are no further outbreaks. Many importers have been unable to get their sheep across on account of an outbreak at the last moment, and have been forced to cancel all purchases or hold till the following year, as some of the breeders will refuse to take the sheep back and refund the money. In any case, there is a heavy loss financially. If the boat is loaded and sails, a heavy burden is lifted from you and all will probably go well, providing you or your men do not get sea sick, in which case someone may have considerable work to do if there are several hundred sheep to feed and water. Last year the writer was fortunate in getting away two days before an outbreak, but all excess feed and litter was thrown overboard before reaching Quebec.

The boat finally arrives at Quebec, and the sheep are loaded into cars and quartered in the Government quarantine, where they must finish their period of quarantine which is thirty days, starting on the day the boat sails. You will be very fortunate if some sheep do not develop sore mouth while at the quarantine, as the veterinarian in charge will refuse to release any sheep that are not free from this. Sore mouth is caused only by the change of feed and lack of exercise which the sheep undergo during the voyage, and while contagious to a limited degree, can soon be checked; but I have known of sheep being held at the quarantine several weeks longer than their quarantine period, till all sore mouths were cleaned up. This seems like an extreme hardship, as the release of the sheep is often delayed till it is too late to utilize them for the purpose for which they were imported.

Importing is a gamble, and under present conditions

if the Department of Agriculture could render any assistance by having a competent man in England, it would be greatly appreciated and be conducive to individuals attempting to bring across the best stock for their own breeding operations. With the prevailing risks which one encounters, it is a very uncertain business—but exciting, and an education.

## THE FARM.

### Startling Figures That Show Where Our Farmers Come From.

Final immigration statistics for Canada for the calendar year 1919 show that the total number of persons who entered the Dominion to reside from all countries was 117,633, an increase of 134 per cent. over 1918. Of those 52,064 were from the United States; 57,251 were of British origin and the balance from various other countries.

During the same period, 491 persons were deported, 203 at ocean ports and 288 at the border, having come from the United States. There was an increase of deportations at ocean ports of 56 per cent. and a decrease at the border of 22 per cent. By far the greater proportion of deportations in the latter case were for criminality, 154 out of 288. For insanity there were 18 deportations at the border, and sixty at ocean ports. Other causes of deportations were as follows: Border: drug habit, 13; liable to become public charges, 70; vagrancy, 15; immorality, 6; Ocean ports: criminality, 41; public charges, 75; immorality, 8.

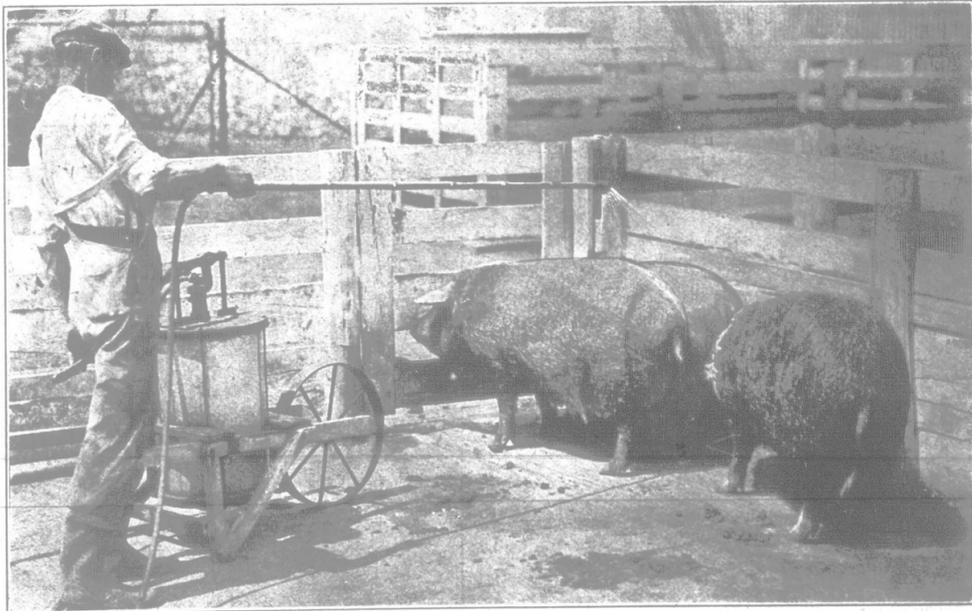
How very strict Canada is becoming with regard to the character of her new citizens is shown in the remarkably large number of persons rejected while trying to enter the country, both from the United States and from Europe. At border points there were rejected

it increased to eleven, which is a strong inducement to immigration.

A study of the immigration returns of both the United States and Canada for the past twenty years shows that there is a pronounced migratory movement across the boundary line from either side, and each country is contributing materially to the life of the other. Canadian immigration statistics for the past two decades show that since 1900 there was a total immigration from the United States of 1,277,436 persons, equal to about fourteen per cent. of the present population. Nearly forty per cent. of the total immigration into Canada during the period under review was from the United States. There were 82,000 more Americans entered Canada from the United States during that time than from the British Isles.

During the past twenty years 136,222 entries for homesteads were made by Americans, or 26 per cent. of the total number filed on. During the same period the total number of filings by Englishmen, Scotchmen and Irishmen were only about ninety thousand. This proves what the majority of Canadians believe; that the best class of permanent immigrants coming to Canada come from just across the line. It will be found that very few of them have contributed to that urban congestion which has been one of the Canadian problems of the past ten years. Immigrants from the British Isles and to a considerable extent from continental Europe have crowded to them instead of going on the land. As a result of this, Canada is now sending a delegation of experienced farmers to the British Isles, whose duty it will be to personally interview all intending immigrants and ascertain if they are likely to make suitable farmers. If not they will be discouraged from immigrating.

The American immigrants who have come into Canada in the past twenty years have brought a substantial amount of wealth with them. Immigration authorities rate the value of the average immigrant to



Hogs as Well as Pens Frequently Need an Application of Disinfectant or Vermin Destroyer.

in 1919, 20,211 persons, as compared with 8,702 in 1918, an increase of 132 per cent. The principal causes were as follows: Indirect passage, 12,317; lack of funds, 6,003; vagrancy, 377; likely to become public charges, 266; alien enemies, 239; illiteracy, 144; Hutterites, 71; laborers, 91; lost Canadian domicile, 102; insanity, 66; physically defective, 88; prostitution, 54; procurers, 23.

At ocean ports there were rejected 497, as compared with 53 in 1918; and of this number 420 were rejected as being laborers. The large proportion of laborers rejected is thus explained; in June 1919 there was an order in council passed debaring labor of the skilled and unskilled classes from entering at Pacific ports. This is effective against Asiatic immigration, and practically all the rejections above mentioned were of that class.

The immigrants who came from the United States to Canada in 1919 settled in the various provinces of Canada as follows: Maritime Provinces, 2,593; Quebec, 6,617; Ontario, 12,093; Manitoba, 4,465; Saskatchewan, 8,672; Alberta, 13,883; British Columbia, 3,601; Yukon, 140. They came from fifty-one named States and territories, with fifteen hundred from states not given. The States from which they principally hailed were as follows: Michigan, 5,886; Minnesota, 4,749; New York, 4,711; Massachusetts, 3,886; Montana, 3,438; North Dakota, 2,819; Illinois, 2,497; Washington, 3,184; Maine, 1,851; Iowa, 1,379; Wisconsin, 1,212; Pennsylvania, 1,227; New Hampshire, 1,176; Ohio, 1,167; Idaho, 1,065; South Dakota, 898; California, 743; Vermont, 714; North Dakota, 598; Missouri, 598; Rhode Island, 551; Nebraska, 519; Mississippi, 499; Kansas, 488; with the balance, 538; Connecticut, 499; Kansas, 488; with the others scattered as to origin from a few hundreds down to the one lone individual who came from Hawaii.

With American money at a premium of over ten per cent. at the present time (January) the settler coming in with ten thousand dollars of wealth suddenly finds

the country at one thousand dollars; the immigrant from the United States is much above the average in value. They rate the total value of the immigration from the south in the past twenty years, taking into consideration the value of money and effects brought with them, and the capitalized value of the individual, at not less than a billion and a half dollars. During the last fifteen years of the period, Canada paid bonuses on 17 per cent. of the British immigration and five per cent. of the continental. No bonuses whatever were paid for the immigrations from the United States, the only cost to Canada being for such propaganda and advertising as was conducted. Under the circumstances, it is not surprising that this class of immigration is rated high.

It is interesting also to note how the great human tide has been running the other way. Between 1899 and 1918, 755,322 immigrants entered the United States from British North America; so that on the whole period, Canada would seem to have a pretty heavy balance on the right side of the ledger; but during the past ten or eleven years we have been losing the ground we made up in the early part of the period under review. The yearly records for the past twelve years show the emigration from Canada to the United States as follows: 1907, 19,918; 1908, 38,510; 1909, 51,941; 1910, 56,555; 1911, 56,830; 1912, 55,990; 1913, 73,802; 1914, 86,139; 1915, 82,215; 1916, 101,551; 1917, 105,399; 1918, 32,352. Sad to say, it is believed that a good many of those who emigrated in 1916 and 1917 before the United States entered the war, left in order to escape conscription here. Probably a good many of them eventually were conscripted in one country or the other. A great many, also, were attracted by the high wages being paid in industrial employment across the line during the war.

# Fertilizer Facts and Fallacies.

By B. LESLIE EMSLIE.

"Facts are chieftains that winna ding" is an expressive Scots proverb which, reduced to tame English, means "Facts are fellows who cannot be thrown." Fallacies there are too, which have not yet been effectually refuted or overthrown, and a few of these may now be contemplated critically.

## FAMILIAR FALLACIES.

Some believe: (1) that the chemical analysis of a soil gives a reliable indication of that soil's fertilizer needs; (2) that the composition of a crop determines the kind and quantity of the fertilizer to be used; (3) that the size of the crop will be directly proportionate to the amount of fertilizer applied; (4) that fertilizers may be relied on to offset unfavorable conditions due to lack of drainage or proper cultivation and (5) an opposite aspect—that fertilizers act as a scourge or "whip" to the soil.

Notwithstanding the assertions of some to the contrary, a chemical analysis is of little value in gauging soil fertility. The total amounts of plant food substances present may be shown thereby, but not the proportions thereof, which might be deemed available for crop use within a stated period of time. The utility of a chemical analysis for this purpose becomes more apparent on contemplating the results following the application of a comparatively insignificant quantity of plant food in soluble form to the soil. Assuming that the surface soil, to a depth of nine inches, weighs two-and-one-half-million pounds to the acre, the 30 pounds of nitrogen, furnished in an application of 200 pounds—a liberal quantity—of nitrate of soda, would represent only a fraction over the one-thousandth part of one per cent. of nitrogen in that soil, and infinitesimal trace, too small to be recorded in the analytical data and yet, because of its solubility, sufficient to exert a decided influence on the crop. A more reliable and useful laboratory analysis of a mechanical nature is one which effects the separation of the clay, gravel, sand, humus, etc., of soils by means of water-decantation, sieves, etc., and includes a microscopic examination of the soil particles and simple tests for acidity and alkalinity. A knowledge of the approximate proportions of sand, clay, humus and lime present in a given soil is an infinitely more reliable guide in its treatment than a chemical analysis thereof could furnish.

The composition of the crop is not an infallible indicator of the fertilizer requirements, since crops vary in their ability to assimilate plant food. A 700-bushel crop of turnips will contain three times as much potash as would be present in a 200-bushel crop of potatoes, yet experiments prove potatoes to be very much more responsive than turnips to potash in the fertilizer. Furthermore, turnips contain five times as much potash as they do of phosphoric acid, yet, of all cultivated crops, turnips are most dependent on a readily soluble supply of phosphoric acid.

Controlling the size of the crop by the kind and quantity of the fertilizer applied has limits which, however, are not always recognized. A correspondent in Eastern Ontario asked the writer to prescribe a fertilizer which might be depended on to produce a crop of 300 bushels of potatoes to the acre, adding that he thought the potato fertilizer used in New Brunswick might suit his purpose. In replying, the writer had to confess his inability to guarantee results, pointing out that seasonal and other conditions might be more potent factors than fertilizers in productiveness.

Naturally, there is a limit to the possibilities of crop increase from fertilizing which is only one of several controlling factors, and this limit will vary, being higher in certain localities than in others, according as the environment, etc., may favor the particular crop. Thus, the average yield of potatoes in the moister, cooler climate of New Brunswick must always be higher than that of Ontario, the warm, comparatively dry climate of which favors rather such crops as corn, alfalfa, fall-wheat, etc.

Fertilizing as a substitute for cultivation is a measure that could suggest itself only to the shiftless farmer, for the progressive farmer knows that the more thoroughly the soil is cultivated, the greater will be the prospects of success from the fertilizing. Fertilizers are not a scourge to the soil, but serve to augment or maintain therein a reserve of soluble or easily soluble and available nitrogen, phosphoric acid and potash, so that—under favorable seasonal conditions—an adequate, regular nourishment of the crop may be assured. The belief, once prevalent, that the use of fertilizers led to soil exhaustion was based, doubtless, on the observation of results following the excessive and repeated use of quick lime (burned lime), land plaster (gypsum or sulphate of lime) or other substances capable of exerting an indirect fertilizing influence, but possessing no inherent fertilizing properties. Such substances would promote the rapid breaking down of soil humus with the consequent liberation therefrom of nitrogen particularly, as well as of potash from mineral compounds resulting ultimately in a serious depletion of the soil's reserve of comparatively readily available plant food substances.

## ESTIMATING FERTILIZER REQUIREMENTS.

While the nature of the soil and of the crop to be grown thereon will, in some degree determine the fertilizer to be used, the only sure guide to the requirements will be found in actual field trials.

The fertilizer application which will produce the

This is the third of a series of articles written by B. Leslie Emslie, formerly Supervisor of Investigational Work with fertilizers for the Chemical Division of the Central Experimental Farms, Ottawa. Mr. Emslie is second to none as an authority on this subject, and we commend the series to all farmers who may, in any way, be interested in fertilizers.—Editor.

largest crop yield is not necessarily always the most profitable, for beyond a certain limit the increase in yield may prove insufficient to repay the cost of the additional fertilizer. The monetary value of the crop is, of course, an important factor in determining the nature and extent of the fertilizing.

While the relative quantities of plant food in the fertilizer mixture must necessarily vary with the requirements of different crops and conditions, the percentage of nitrogen present will rarely exceed one-half that of the phosphoric acid, the latter being the dominant constituent required in all except special fertilizer mixtures.

In pre-war days, when potash was more plentiful and cheaper than it is now or will be for some time to come, there was on the market a deservedly popular high-grade mixed fertilizer, known as a "4-8-10" brand, which found particular favor among market gardeners and potato growers. Now the figures, "4-8-10" represent, in the order named, the percentages of nitrogen (or ammonia), available phosphoric acid and potash.



The Crops Grown are an Indicator of Soil Fertility.

The correlation of the terms, "nitrogen" and "ammonia", requires a word of explanation. The fertilizer manufacturer quotes nitrogen customarily in terms of ammonia. Now ammonia is simply nitrogen combined with hydrogen, a very light gas which adds but slightly to the weight of the compound. However, 14 parts by weight of nitrogen are equal to 17 parts by weight of ammonia. Therefore, to convert nitrogen into terms of ammonia, it is necessary to multiply by 17 and then divide the product by 14, and to reverse the procedure when converting ammonia into terms of nitrogen. Thereby the 4 per cent. of ammonia in the 4-8-10 fertilizer is found to equal 3.3 per cent. of nitrogen.

## COMPOUNDING A 4-8-10 FERTILIZER.

In one ton of a 4-8-10 mixture there would be present 80 pounds of ammonia (or 66 pounds of nitrogen), 160 pounds of available phosphoric acid and 200 pounds of potash. These quantities could be furnished by 425 pounds of nitrate of soda (15½ per cent. nitrogen), 1,000 pounds of superphosphate (16 per cent. available phosphoric acid) and 400 pounds of muriate of potash (50 per cent.) respectively.

It was not an unusual practice among New Brunswick potato growers to apply a ton of this 4-8-10 mixture to the acre, and our investigations have shown that, in many instances, even this large quantity did not exceed the limit of profitable application there. However, for reasons already stated, such an application would be extravagant for general conditions in Ontario, where 700 pounds of the mixture would be considered usually an ample fertilizing for potatoes. The 700 pounds would be approximately represented by 150 pounds of nitrate of soda, 350 pounds of superphosphate and 140 pounds of muriate of potash.

## LOW-GRADE FERTILIZERS ON THE MARKET TO-DAY.

Of necessity most fertilizers now produced are very low in potash as compared with those of pre-war days. However, excepting tobacco, potatoes and certain fruits and vegetables, most crops will thrive on a nitro-phosphatic fertilizer, provided they are able to obtain their limited potash requirements from manure or from the soil itself.

Last spring a returned soldier, who had acquired possession of a large farm in Ontario, consulted the writer as to the fertilizer treatment of various crops. He had already purchased several tons of fertilizers of three different brands and wished to know how and where each should be used. The task was neither pleasant nor easy, for the fertilizers were extremely low-grade materials, quite unsuitable for the crops which they were expected to benefit. Among them was a 1-8-1 brand, a grade too much in evidence to-day. It would contain, in one ton, only 20 pounds of ammonia (or 16½ pounds of nitrogen), 160 pounds of available phosphoric acid and 20 pounds of potash. These quantities could be furnished in 107 pounds of nitrate of soda, 1,000 pounds of superphosphate and 40 pounds of muriate of potash. If applied at the rate of 700 pounds per acre, this 1-8-1 fertilizer would furnish only 5½ pounds of nitrogen and 7 pounds of potash, in addition to 56 pounds of phosphoric acid, on that area. Now, despite the claims of certain fertilizer agents to the contrary, it would be absurd to expect these small quantities of nitrogen and potash to exert an appreciable influence on crop growth. Half a ton of the 16 per cent. grade superphosphate would contain the same amount of available phosphoric acid and, we venture to say, would yield results certainly not inferior to those produced by a ton of the 1-8-1 fertilizer. The chief difference would be found in the price, the phosphoric acid in the superphosphate being invariably the cheaper.

At a recent convention of the National Fertilizer Association of the United States, some commendable

resolutions relative to fertilizer control were adopted. One of these recommended that in fertilizer mixtures the guarantee of which claimed the presence of nitrogen or potash or both, the quantity of either should be not less than 2 per cent. The enforcement of such a rule would effectually eliminate 1-8-1 and other very low-grade brands and would tend to raise the standard generally.

While the Dominion Fertilizers' Act insists on the registration of every fertilizer offered for sale in Canada and contains provisions for the sampling and testing of these materials, in order to ensure conformity between the actual and guaranteed composition of each, it exercises no control over prices, the manufacturer being free to charge whatever price he pleases for his goods.

## PER-UNIT PRICE FOR PLANT FOOD IN FERTILIZERS.

The "price per unit" is a term frequently employed in the fertilizer trade, but one probably not very familiar to the average farmer. The "unit", when used in this sense, stands for 20 pounds or one per cent. of one ton of 2,000 pounds. Nitrate of soda is sold usually under guarantee of 15 per cent. of nitrogen present. Actually, there is seldom less and oftener more than 15½ per cent., so that 15½ is a reasonable estimate. Since the relation of nitrogen to ammonia is as 14 to 17 by weight, 15½ per cent. of nitrogen would equal 18½ per cent. of ammonia. Assuming then that a ton of nitrate of soda, containing 18½ per cent. (18½ units) of ammonia, costs \$100 the per-unit price of the ammonia will be approximately \$5.35.

Similarly, if a ton of superphosphate, containing 16 per cent. (16 units) of available phosphoric acid, costs \$40, the per-unit price of the phosphoric acid will be \$2.50.

Potash but we do —except warranted ing to nu times its

—Having of current acid and determini of other l

Thus, of ammon available would be

4 x 8 x 4 x

giving a t materials inferior to By th fertilizer Similar a value of

These reader ma nitrogen ready-mix may be o stances de respective

AUTO

Settl

At the have anyv of land wh be a sourc able to se neighborh clusion as as some few tract then there up" to an various ca man may cost on a similar m level farm farming s the questi much clos

One any tract running it must d difficult r any price out a com A tractor experimen the tractor Am I me the ordin has no hea the opera man and from the where the be able to cared for, Even thou it is very the fami only by k to pass ju starts op capable o arise in a the merc tractor o There mechanic operator, with a t master th they will

Potash is at present a rather unknown quantity, but we do not believe that its employment as a fertilizer—except for special crops and conditions—would be warranted at a price exceeding \$4 per unit—corresponding to muriate of potash at \$200 per ton—just about four times its former price.

VALUATION OF COMPOUNDED FERTILIZERS.

Having, in the foregoing manner, reached an estimate of current unit prices of ammonia, available phosphoric acid and potash, we are in a position to apply these in determining, approximately at least, the market value of other fertilizer materials, separate or compounded.

Thus, a 4-8-4 fertilizer, i. e., one having 4 per cent. of ammonia (or 3.3 per cent of nitrogen), 8 per cent. of available phosphoric acid and 4 per cent of potash, would be valued as follows:

4 x \$5.35:	\$21.40 worth of ammonia
8 x \$2.50:	20.00 worth of phos. acid
4 x \$4.00:	16.00 worth of potash

\$57.40

giving a total value of \$57.40 per ton, providing that the materials of which it is compounded are of grades not inferior to those taken as our standards.

By the same method of computation, the 1-8-1 fertilizer would show a value of \$29.35 per ton.

Similarly a 4-10-0 (no potash) fertilizer would have a value of:

4 x \$5.35:	\$21.40
10 x \$2.50:	25.00

\$46.40 per ton.

These deductions are approximations only, and the reader may find it well worth while to remember that the nitrogen (ammonia) and phosphoric acid present in ready-mixed fertilizers are never of greater value and may be of very much lower value than the same substances derived from nitrate of soda and superphosphate, respectively.

(To be continued.)

**AUTOMOBILES, FARM MACHINERY AND FARM MOTORS.**

**Settling the Tractor Question on One's Own Farm.**

BY L. G. HEIMPEL, B. S. A.

At the present time there are a great many men who have anywhere from fifty to three or four hundred acres of land who are undecided as to whether a tractor would be a source of loss or gain to them. From what one is able to see from work done by tractors in any particular neighborhood it is hard to arrive at any definite conclusion as to whether tractors are as paying a proposition as some would have one believe. There may be a few tractors around which are doing good work, but then there are sure to be others which are not "showing up" to any advantage. When we try to analyze the various cases before our notice we may find that one man may be doing a great deal of good work at a low cost on a fairly rolling farm while another man with a similar machine is not making very much progress on a level farm where conditions toward successful tractor farming seem to be ideal. So that trying to decide the question,—To buy or not to buy? does not come very much closer to its solution by watching the other fellow.

KNOW YOUR OWN CAPABILITIES.

One thing is certain, the success with which any tractor will be operated depends first on the man running it and secondly on the conditions under which it must do its work. At the present time it is a very difficult matter to procure hired help of any sort at any price, and it is certainly an unwise thing to try out a comparative stranger by letting him run a tractor. A tractor is too expensive a piece of mechanism for such experiments. Therefore, when a man is thinking over the tractor buying question his first thought should be: Am I mechanic enough to run the thing myself? On the ordinary Ontario farm where the tractor operator has no head mechanic to fall back on in case of trouble, the operator must be his own trouble-shooter, repairman and expert. It is a significant fact that, judging from the reports we have received, in nearly all cases where the tractor has given the results that we should be able to expect of it, the machine was run, or at least cared for, by the owner himself or a member of the family. Even though it is possible to procure an efficient operator it is very necessary that the owner or a member of the family be an efficient tractor man, because it is only by knowing the outfit one's self that it is possible to pass judgment on the actions of a stranger when he starts operations. Furthermore, unless an owner is capable of taking charge of any condition which may arise in a day's work at any time, he is immediately at the mercy of strangers and the chances for success in tractor operation have dropped considerably.

There are many men who may have the necessary mechanical turn in their make-up to make a good tractor operator, but unless they supplement this possession with a thorough knowledge of gas-engine theory and master the details of construction employed in a tractor they will be far from efficient in even a year's run. The

would-be tractor man must develop more than a passing interest in his machine. He must make himself familiar with the forces that make the crankshaft turn and must know how these forces are produced. He must also know the possible ways in which these forces can be weakened how to detect weakness as soon as it appears and how to cure it. It is in the curing of tractor ailments or in the manual work of handling wrenches and other tools only that an inborn mechanical turn is of much value. We must not forget, however, that a liking for the machine is the only good which will drive a man to study the principles of operation and construction which are so essential to success.

Once an owner or operator has gained possession of the above requirements his success as an operator and as a tractor farmer are almost assured. Once he has gained the principles, the longer his experience in the work the more proficient and more successful will he become. We have frequently made the statement that ninety per cent. of the success of tractor farming depends on the operator, the other ten per cent. on the local conditions under which the machine must do its work. These conditions are largely composed of:

SIZE AND CONDITION OF THE FARM.

The tractor, to be economically employed must either make the cultivation of more land possible with no more expense for help or must replace a reasonable number of horses. Yet it cannot, at the present stage of its perfection, entirely take the place of horses. The average hundred acre farm employs from three to four horses. It is hardly possible to cut the number of horses down to less than two on an ordinary farm of a hundred acres; in such cases the tractor would be taking the place of only one or two horses when it really should take the place of four. This objection has been in many instances overcome by the owner of the engine increasing his acreage under cultivation either by breaking up new land or pasture or by renting some adjoining land which is often possible.

A tractor and the necessary implements for it, which include plows, discs, cutting-box for silo-filling, grinder at least part ownership in a threshing machine will cost between \$2,500 and \$3,000, and it is the interest on this money and the depreciation which makes the outfit too expensive on a small acreage. To give a tractor anything like a fighting chance toward paying its way, there should be available at least seventy-five full days' work for the engine. Any farmer can figure out from the size of his farm and the nature of his fields about how many days of cultivation it will be possible to find and how many days of belt work. In cultivation operations four acres a day is a good day's plowing, averaging over a season in average conditions; for discing twelve to fifteen acres is a fair average for a 10-20 tractor.

Even though the size of farm may be favorable it is necessary to have large fields or regular outline and with no obstructions such as trees, stumps, open ditches or stone heaps if the tractor is to work to its best advantage. Land-fast boulders are a great hindrance and must be removed before best results are obtainable. Good drainage so as to ensure an absence of wet spots is also essential to advantageous tractor farming. As to contour of the ground and nature of the soil we must say that a tractor is not made to climb steep hills, though it will negotiate fairly stiff slopes with a considerable measure of success.

When one is considering the purchase of a tractor the above are the features of the proposition which he must consider. If, after examination, he finds that he and his land offer conditions which seem favorable, there should be no question as to the advisability of the venture.

**THE DAIRY.**

**Why Cow Testing Pays.**

EDITOR "THE FARMER'S ADVOCATE":

At times like these, when owing to the high price of labor, feed and machinery, a farmer has to make as much as he can out of what he grows and produces, it is surprising to me, that so few dairymen realize the importance and advantages of having their cows tested for milk and fat production. The plea that it costs too much, can hardly be raised, when one considers it can be done gratis through the Government, by means of the Record of Performance, for pure-bred cows and cow testing associations for grade cows, and practically the only expense for the farmer, is the purchase of milk scales, which cost about six dollars, and with care, will last for years. Similarly the little time it takes can hardly be raised as an objection.

From statistics gathered by Professor Leitch of Guelph Agricultural College the following table has been prepared.

Milk produced per cow	Cost per 100 lbs. of milk
Under 4,000 pounds	\$3.96
4,000—5,000 pounds	2.55
5,000—6,000 pounds	2.23
6,000—7,000 pounds	2.15
Over 7,000 pounds	2.05

The amount of milk per cow, may seem low to some dairymen, but it must be remembered that this includes all cows in the herd, including dry cows and heifers, also that the average yearly production per cow is approximately 3,500-4,000 lbs. of milk per year.

Now comes the important question: How much do your cows produce in a year? To this question, several

men will say, "I do not know exactly, but nearly all my cows give over a pailful, when they freshen and keep it up for a long time." But that is not the correct way for a dairyman to answer. He should be able to say exactly what each individual cow is producing, and testing, is the only way by which this can be found out.

We will now consider some of the advantages of cow-testing. In the first place, it enables the farmer to find out which are the poorest cows in the herd, so that those not paying for their feed (and there are a lot of them) may be got rid of; and similarly it saves good cows from being beefed or sold, for it is not always the cow that fills the pail when fresh that by the end of the year proves the most profitable. Persistency of flow, counts for a very great deal. This can only be definitely found out by weighing every milking, or if that is considered too much trouble, a very good estimate can be obtained by weighing three times per month.

Through cow-testing, a profitable herd can be built up more easily and quickly, as heifer calves can be kept from the profitable cows only. The ability to milk or produce butter-fat in large quantities is hereditary and providing a good sire is used a good heifer, will practically always be produced from a good cow.

Another important feature of cow-testing is that it enables the farmer to feed properly, that is, feed in proportion to the milk or butter-fat produced. It also shows him how some feeds give better results than others, thus effecting a big saving in the feed bill.

From a financial point of view cow-testing very soon pays, as young bulls from tested cows are sold far more easily and for much higher prices, also the cows for about double when buyers can see the records of production. This is even more pronounced in the case of pure-bred cows.

For the farmer himself, keeping records makes one more observant of those details which go to make success. It also induces reading and study, resulting in the farmer becoming a far better dairyman. He also takes more interest in his herd, and the work becomes less of a drudgery, when he realizes that the cow is an individual performer responding to careful treatment and study not a mere milking machine. To summarize, it may be said that cow-testing means a definite increase in cash receipts, a saving of time and feed on cows not worth keeping and a raising of the whole tone of dairy farming.

**Factors Which Control the Profits of Milking Cows.**

With the present high prices of all feeds, it has been stated that there is very little remuneration in dairying, unless carried on in a systematic and businesslike way, and this is no doubt correct. However, this is true of all lines of business. The manufacturer who does not produce economically cannot meet competition and eventually fails. The successful manufacturer can tell you exactly what it costs to produce a certain line of goods.

The problem of success or failure in the dairy industry rests largely with the dairyman, if he will only realize that he is engaged in a business enterprise that requires more brains, more discretion, more industry and better judgment than the average business; that he has to raise from the soil and economically feed so that his cows can manufacture milk at a profit, and then so handle the operations that no more labor will be expended than is absolutely necessary to produce results.

The dairy industry, unlike most industries and practically all manufacturing industries, cannot fail. It is necessary for the life of the people, and its success is going to be just in proportion to our discretion and rightly directed efforts.

Money cannot be made out of dairying by milking scrub cows which give two or three thousand pounds of milk in three or four summer months, and then allowed to roam around the straw stack for the balance of the year, or housed in a dark, poorly-ventilated, dirty stable, and their drinking water furnished through a hole cut in the ice. This cannot be called dairying, and produces only poor results.

The successful dairyman divides dairy cows into three classes: the registered animals; the grade cow and the scrub. The intelligent dairyman knows, however, that there are many kinds of registered animals, and many kinds of grades, based on production, though one class—that of scrub production—may embrace all scrubs.

In the ranks of grades, as among registered animals, however, there is a wide variation in production, and it is of great value to the dairyman and to the industry that the performance of each animal be known. This is where the work of cow testing or Record of Performance comes in. Low performance cows, whether grades or pure-breds, should be got rid of. The herd should be headed by a pure-bred bull with a line of descendants of high producers. Then in a few years a herd of profitable, high-producing cows will be the result.

True, the average production of milk is not large in the country, but it is steadily increasing, and it has been repeatedly and repeatedly demonstrated that the amount may be increased very materially without any great effort, and that even six or seven times the present average amount is attainable.

Twenty-five and thirty thousand pounds of milk has been produced yearly by Canadian cows. Twenty thousand pound cows are not uncommon to-day. The present high records now being made by the pronounced dairy cows prove that the average of the milk-producing animals can be very materially increased, and should be as rapidly as possible. Therefore, it is not unreasonable to expect a herd of grade cows to average at least

eight thousand pounds per cow per year, testing 3.5 per cent. fat.

If this milk is sold for the city trade at present prices, a herd of ten cows would produce eighty thousand pounds of milk per year at say, an average of \$3.40 per hundred pounds, which would total \$2,720 per year, or if sold in the form of butter-fat to the creameries, at the price prevailing for the last year, would be worth over \$200 per cow, allowing 50 cents per hundred pounds for the skim-milk, which it is worth for feeding calves, hogs or poultry.

The cost of producing one hundred pound of milk at the present time all depends on the individuality of the cow and the kind of feed.

From a glance at the history of civilized nations we learn that dairying takes a very important place. Europe has long been milking cows, and the Eastern half of the United States and Canada is now solidly in the dairy business, that the Western States, Iowa, Illinois, Minnesota, are now solidly in the dairy business. Forty years ago these were the great wheat-producing centres of the United States, but they were forced to change their system of farming and this change is now gradually working northwest. North and South Dakota are largely engaged in dairying, and this change is surely taking place in Manitoba, more especially in the southern part of the Province where grain growing has been carried on extensively for 25 or 30 years. To show the change which is taking place it is only necessary to mention that in the year 1912 we imported over a million pounds of creamery butter to meet our market requirements from Ontario and the Eastern townships. This present year we not only supplied our own market but shipped out over three million pounds, valued at \$1,820,000, and the total value of all dairy products produced in Manitoba this year amounts to \$16,789,892, and this does not tell the whole story because more dairying means more young stock, hogs and poultry produced.

Grain growing during the last few years where good crops have been secured has undoubtedly been profitable. However, this system is simply mining and gradually but surely depleting the farm of the plant food that took nature many years to store in the soil, and which in many parts is beginning to show the effects of continual grain growing, causing weeds to flourish and a deficiency of humus, whereby it cannot withstand drought. This is the point where the dairy cow comes in, and this has been the experience of all civilized countries.—Dairy Commissioner L. A. Gibson, Manitoba.

### Dairy Breed Notes.

Many people say that it is not practicable for the average farmer to test his cows for high records. The accompanying illustration shows the interior of the stable where Plain Mary, the world's champion mature Jersey cow for butter-fat production, was fed and tested. From the picture one would not judge that the conditions under which she was tested were much beyond the reach of the average dairyman. Beginning her test at eight years and eleven months, Plain Mary made a yearly record of 15,255 lbs. of milk and 1,040 lbs. of butter-fat. In view of what we said at the beginning, some of the remarks made by the Secretary of the American Jersey Cattle Club, are interesting.

"The country in which she lived is subject to severe extremes of weather and the setbacks were due to a weather variation of eighty-four degrees in one day in June, and then in December she was subjected to forty-five degrees below zero in an unheated barn. The farm is located in an unprotected spot on the shores of the Penobscot River and Mary had the benefit of all the fresh air that blew across fields of ice and snow. In spite of her handicaps she finished strong and averaged twenty-eight pounds of milk per day during the last month of her record. Plain Mary's record is more of a tribute to official test work than it is to breeding, as she does not belong to any particular strain. She reverts to St. Lambert blood chiefly, but no plan of breeding is brought out in her pedigree. As an individual she is much better than her picture. Cattle experts who have seen her say she is an almost perfect specimen of the producing dairy cow. She has plenty of barrel, strong constitution, good udder and teats, a very fine hide and every evidence of "dairy temperament," or willingness to work. Plain Mary's record was very closely supervised. There were twenty-two supervisions by official testers (each of whom stayed two days). They represented five state agricultural colleges and every one was a recognized expert in this line of work."

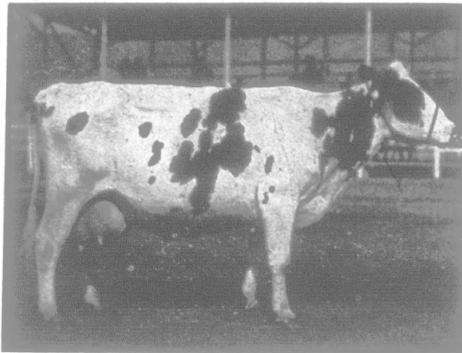
SOME FEBRUARY HOLSTEIN RECORDS.

During the latter half of February, the official tests of fifty cows and heifers were accepted for entry in the Holstein Record of Merit. Lady Keyes Mercena heads the list of fourteen mature cows, with 27.89 lbs. of butter from 143.8 lbs. of milk. Queen Colantha Dewdrop heads a list of seven senior four-year-olds, with 26.25 lbs. of butter from 581.1 lbs. of milk. The premier cow in the junior four-year-old class is Pauline Echo Lass that made 25.54 lbs. of butter from 563.4 lbs. of milk. In the senior three-year-old class, Belle De Kol Pontiac 2nd makes a fine showing with 30.02 lbs. of butter from 540.8 lbs. of milk, while in the junior three-year-old class, Hill-Crest Rauwerd Sadie, from the same stable, makes 31.86 lbs. of butter from 472.3 lbs. of milk. The junior and senior two-year-old classes are headed by two cows from another stable that made 17 and 19 lbs. of butter, respectively. The best of the semi-official or Record of Performance tests reported for this period is the three-year-old record of Queen Colantha Dewdrop, that has 860 lbs. of butter from

19,457 lbs. of milk. Next to her comes Gretqui Hengerveld Keyes, a mature cow, eight years old, making 680 lbs. of butter from 16,724 lbs. of milk.

### 71 AYRSHIRES FINISH R. O. P. TESTS.

During January and February, 71 Ayrshire cows qualified in the Record of Performance test. These included fourteen mature cows, seven four-year-olds, thirteen three-year-olds, and thirty two-year-olds. Selwood Pride heads the mature class, with 12,591 lbs. of milk and 530 lbs. of butter-fat in 361 days, her average test being 4.21 per cent. butter-fat. Briery of Springbank 3rd produced, in 365 days, 12,608 lbs. of milk and 519 lbs. of fat, when her test was 4.11 per cent. Among the three-year-olds, Aemelea Grace, with a milk test of 4.09 per cent. fat, produced, in 328 days, 396 lbs. of fat from 9,672 lbs. of milk. The highest cow in the two-year-old class was Southeraig Lady Maud 2nd, that in 365 days, with an average of 4.52 per cent. fat, produced 498 lbs. of fat from 11,007 lbs. of milk.



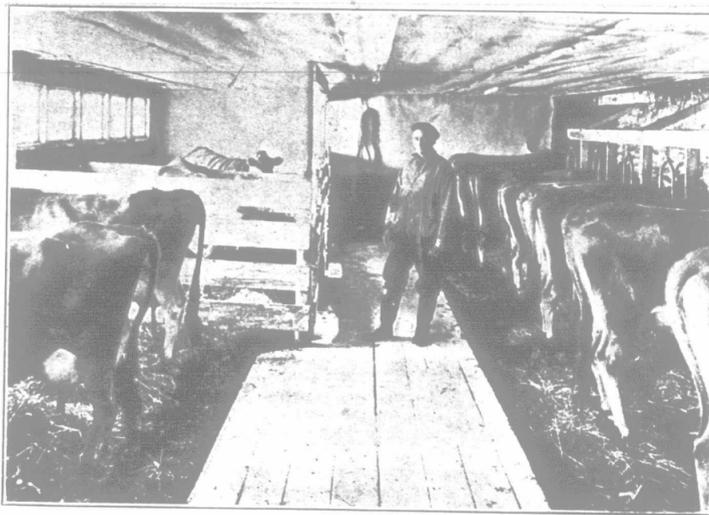
Homestead Susie Colantha.

First aged cow in milk, Canadian National Exhibition, 1919, for Haley & Lee.

### Milk Producers Reply to Commissioner Murdock.

Probably most of our readers have noticed in the daily press a statement attributed to Commissioner Murdock, of the Board of Commerce, regarding the United Farmers' Co-operative Company and the Toronto Milk and Cream Producers' Association. The following is a statement of the attitude of the Ontario Milk and Cream Producers' Association forwarded to us by J. P. Griffin, Secretary-Treasurer.

"At a joint meeting of the Ontario and Toronto Milk Producers' Association, it was brought to the attention of the members, that certain references had been made to the Toronto Milk Producers' Association by Mr. Murdock a member of the Board of Commerce, calculated to give the impression that this association



Where the Jersey's World Record was Made.

This photograph demonstrates that high records can be made even with modest stables and equipment.

was instrumental in unduly enhancing the cost of living and limiting the supply of milk to such an extent as to cause starvation among children in the city of Toronto. The remarks referred to, were contained in the Toronto Daily Star of March 23rd, as follows:

"No such reference was made to the U. F. O. or to the Toronto Milk and Cream Producers' Association, yet it might be said that there were efforts being made on their part to starve children and unduly enhance the cost of living to a far greater extent than any of these double headed monsters would ever get a chance to do."

The Milk Producers Association would like to draw attention to the fact that during the investigation into milk prices before the fair-price Board of the city of Toronto representing the Board of Commerce, it was clearly brought out that no undue profits were being

made by the producer and a compromise price was agreed upon, which was a lesser price than the evidence produced would have justified.

"If the consuming public feel that the producers are taking advantage of their position, we, together with them, will petition the Ontario Legislature to appoint a commission to bring out all the facts regarding production and distribution and also establish some permanent agency whereby such conditions and prices might be adjusted from time to time, thus safeguarding the interests of producer, distributor, and consumer and bringing to an end this continual agitation which is getting us no-where.

"We are anxious to assist to the fullest extent and cooperate with any agency looking to supply the children of the poor with an adequate supply of milk of the best quality. We do not favor skim-milk or an inferior grade of milk being supplied, as we believe that pure clean milk of the very best quality should be obtainable in sufficient quantity by every growing boy and girl.

"We feel sure that Mr. Murdock will correct the impression likely to have been made on the public mind by his statements."

### Western Dairy Conventions.

EDITOR "THE FARMER'S ADVOCATE":

Very successful dairy conventions were held during January and February in the four Western Provinces. It was my privilege to attend them for the first time in several years, and I venture to submit the following notes for the benefit of your eastern readers, because I believe that the organizations in the east might very well take some lessons from these younger associations.

I was much impressed with the way in which the conventions were carried out. The programs were well arranged, with definite objects in view. The directors took a keen and active interest in promoting the success of the meetings. The business of the associations, such as the election of officers and the report of the resolution committee, was not hurried through as a sort of necessary evil, but received full and careful consideration. The members showed no inclination to pass important resolutions without a full understanding as to meaning and effect. The presiding officers were capable men, who kept the meetings in order, confined the discussions to the questions before the chair, and made intelligent comment on the matters brought before the conventions, bringing out and emphasizing the main points.

The B. C. convention, being chiefly a producers' meeting, because the dairying in that province is largely a market milk proposition, had for its main object the education of the community as to the nutritive value of milk and its cheapness compared with other foods. With this end in view a very complete, attractive and convincing display of different foods showing their relative value to milk was installed by the Provincial Instructor in Household Science in the spacious lobby of the Vancouver Hotel, where the convention was held. It attracted so much attention that the hotel authorities requested that it should be allowed to remain for several days after the convention was over.

Citizens of Vancouver were invited to attend sessions of the convention during which addresses were given along the lines of the "Newer Nutrition" of Profs. Hopkins, McCollum and others, to emphasize the protective quality of milk, especially for infant feeding.

Both these features were again in evidence at the Manitoba convention, which was held in the new Fort Garry Hotel, Winnipeg. An "All-Canada" butter competition which include entries from all the provinces, a Dairy Show, and the concurrent meeting of the National Dairy Council, made this convention the most representative one ever held in Canada.

One of the special features of the Alberta convention, held in the MacDonald Hotel, Edmonton, was a luncheon given by the dairymen to the members of the Legislature then in session, at which

addresses were delivered to emphasize the importance of some of the schemes which are advocated for the advancement of the industry.

At the Saskatchewan convention, held at Moose Jaw, very interesting features were the Boys' and Girls' Dairy Cattle Judging Competition, and a Butter Judging Competition. Some 20 boys under 18 years of age in teams of 3 took part in the former, and a number of butter-makers participated with very much interest in the latter.

Local committees for all the conventions were on the job continually, looking after the comfort and entertainment of the delegates, and everybody went home feeling that they had had not only an instructive but an enjoyable time.

Nearly e represented. delegates, an by the cream

The dairy ized in the f instruction being at the information other and m the makers travelling ins have supplied at conventio buttr and ch and value as

While to programs as present day, hardly yet go conditions. connection it closer organi bodies devel and voting l would be to c to a consider in its broad the guidance deal with te direction wo special inter section, a ch a milk distri condensed-m could be bro there can be greater influ convention, discuss their the considera volume of b would not be time in liste particular int

As a rul crowded, and Two good s better than evenings wo thus giving p to fraternize among them

Dairy and C Dept. of A

### What

The follo Telegraph, of producing of 1919-20.

The dire Ministry of of one galle Britain duri omitting int profit.

The figur

Labor— in milk and herd. To c required. of hours th to complet etc., \$9 for 4 time equals minimum w above. A excess of th

DAILY MAI

12 lbs. hay 8 lbs. straw 56 lbs. roots

These fo grown are o at market v

Product (or its equ food) for e less manuri net, equal t

Depreci 6.6 cents rates; (b) (d) delivery

On the of cows in cow as unc

Nearly every creamery in the four provinces was represented at the conventions by one, two or more delegates, and in many cases their expenses were borne by the creamery. This is as it should be.

The dairymen's associations in Ontario were organized in the first place largely with the object of giving instruction in the new art of making cheese, there being at the time no other medium through which such information could be disseminated. As the years passed, other and more effective means were found to educate the makers in the mysteries of their calling. The travelling instructors, and later on the dairy schools, have supplied this need, so that papers and discussions at conventions relating to the processes of making butter and cheese have ceased to be of the same interest and value as they were in former days.

While to some extent this change is reflected in the programs as prepared for the conventions of the present day, it seems to me that the authorities have hardly yet got out of the well-worn track of the earlier conditions. If I have a suggestion to make in this connection it would be, first: that there should be a closer organization, and stronger and more influential bodies developed by a firmer control of membership and voting power. Having done this, the next step would be to devote more of the time of the conventions to a consideration of the business side of the industry in its broader aspects, to discuss and adopt policies for the guidance of the industry generally, rather than to deal with technical questions. A further step in this direction would be to have sections for the different special interests, as for instance a milk producers' section, a cheese section, a butter section, and possibly a milk distributors' section, an ice-cream section and a condensed-milk section. If all these varied interests could be brought together in one parent organization there can be no possible doubt that it would wield a far greater influence than so many separate units. In convention, with the sections meeting separately to discuss their special business, and meeting jointly for the consideration of general questions, a much greater volume of business could be transacted and members would not be wearied and feel that they were wasting time in listening to addresses in which they had no particular interest.

As a rule the dairy convention program is overcrowded, and there are too many sessions held daily. Two good sessions in the day are, in my judgment, better than three, unless there is great urgency. The evenings would be better spent around the hotel lobbies, thus giving plenty of time for delegates to get acquainted, to fraternize freely, and to discuss various matters among themselves.

Dairy and Cold Storage Branch J. A. RUDDICK,  
Dept. of Agr., Ottawa. Commissioner.

### What it Costs to Produce Milk in Great Britain.

The following is extracted from the *London Daily Telegraph*, and presents an outline of the present cost of producing milk in Great Britain for the winter months of 1919-20.

The director of milk supplies has issued from the Ministry of Food an estimate of the cost of production of one gallon of milk on the average farm in Great Britain during the period Dec. 1, 1919-April 30, 1920, omitting interest on capital, managerial expenses, and profit.

The figures are calculated on the following premises:

Labor—One man can milk and attend to 12 cows in milk and the proportion of dry cows that are in the herd. To carry out the work 70 hours weekly are required. (In case one man does not work this number of hours the services of another person are required to complete the work). Minimum wage Derbyshire, etc., \$9 for 48 hours plus 25c. per hour for 22 hours overtime equals \$14.50 or 17 1/4c. per day per cow. The minimum wage is higher in many counties than the above. A large proportion of cowmen are paid in excess of the minimum wage.

#### DAILY MAINTENANCE RATION PER COW, WHETHER DRY OR IN MILK.

12 lbs. hay at \$33.60 per ton (2,240 lbs.)	18.0 cents
8 lbs. straw at \$12.00 per ton (2,240 lbs.)	4.3 cents
56 lbs. roots at \$6.48 per ton (2,240 lbs.)	16.2 cents
Total	38.5 cents

These foods being in the majority of cases home-grown are calculated at the cost of production and not at market values.

Production ration for cows in milk: 3 lbs. of cake (or its equivalent in some other form of concentrated food) for each gallon of milk, at a cost of \$120 per ton less manual value at \$15.96 per ton, i. e., \$104 per ton net, equal to 13.9 cents per gallon.

Depreciation per cow at the rate of \$24 per annum 6.6 cents daily, costs of (a) Proportion of rent and rates; (b) repairs; (c) depreciation on machinery; (d) delivery, are offset by the value of calves born.

On the above data the cost of production in respect of cows in milk varies in proportion to the yield per cow as under:

#### DAILY MILK YIELD PER COW.

Items	2 gallons	1 3/4 gallons	1 1/2 gallons	1 1/4 gallons	1 gallon
Labor	17.2 cents	17.2 cents	17.2 cents	17.2 cents	17.2 cents
Maintenance Ration	38.5	38.5	38.5	38.5	38.5
Production Ration	27.8	24.4	20.9	17.4	13.9
Depreciation	6.6	6.6	6.6	6.6	6.6
Cost per cow daily	90.1	86.7	83.2	79.7	76.2
Loss per gallon of milk in cents	45.0	49.5	55.4	63.7	76.2

In addition to the cost of maintaining those cows that are in milk there is the added cost of those cows that are dry. The following figures show the costs in cents that have to be added for the maintenance ration of dry cows, in proportion to the various yields per cow in milk:

Basis of yield per cow in milk	2 gallons	1 3/4 gallons	1 1/2 gallons	1 1/4 gallons	1 gallon
In case there is one dry cow to 2 in milk	9.6 cents	11.0 cents	12.8 cents	15.4 cents	19.2 cents
In case there is one dry cow to 3 in milk	6.4	7.2	8.4	10.2	12.8

"In my opinion," adds the director, "the average cow in milk from December 1st to April 30th will yield approximately 1 1/2 gallons daily and there will be in the average herd one cow dry to two cows in milk. I therefore, estimate the average cost per gallon to be:

	Cents per gallon
For each cow in milk	55.56
For proportion of dry cow	12.84
Total cost per gallon	68.40

## HORTICULTURE.

### Vegetable Crops Under Glass.

#### PART II.—TOMATOES.

The tomato may be given second place amongst forced vegetables. The general public have acquired such a taste for greenhouse tomatoes that the demand far exceeds the local supply for the Montreal market. Good prices are obtained throughout the entire period that is possible to supply them in paying quantities. In order to make this a paying crop under forced conditions a wise selection of varieties should be made. Many bulletins have been issued which when compared are very misleading. One bulletin will place one variety away ahead of a variety which in another bulletin has taken first place. Many factors have to be taken into account in considering such reports, as for instance, the section of this continent where the tests were made,



Do Not Neglect the Farm Garden this Year.

and also the period covered by the growth of the plants. Markets may also be a determining factor. Some of the bulletins I have read show that the tests were made during the major period of growth. With such conditions any variety will produce in proportion to its bearing outdoors, hence the reason why some varieties which are according to tests made at the college, very inferior as a forcing variety. We have grown tomatoes at Macdonald College for the past 12 years and during that time have tested out a great many varieties. In the early years our mainstay was Comet which formed the bulk of the area planted. Amongst the ones being tested we discovered that Livingston's Globe gave promise of rivaling Comet, with the result that we planted a house with an equal number of each under the same conditions. Records were kept which proved that Globe equalled Comet as a producer and surpassed it in the quantity of marketable specimens. Since that time we have grown Globe exclusively with the exception of a few odd varieties being tested. Many object to Globe because it is not a red variety. The growers for the Toronto market object to it particularly because the fruit is too large. The Montreal market, however, does not seem to care about size; in fact, the Montreal people want tomatoes for slicing and prefer fair sized specimens for the purpose; hence the reason why the growers in this vicinity plant Globe. This

variety has an ideal habit of growth, the leaf stalks are far enough apart, thus offsetting the necessity of removing any of them to admit light, while the foliage is not too heavy. It is a heavy cropper, the fruits being very regular in shape, with but few small fruit that cannot be shipped. Records were kept on the Comet

variety to determine its productions when planted commercially. One house was planted for fall and early winter fruiting and produced 1,900 lbs. The plants to produce the spring and early summer crop were planted in the same solid which had been sterilized, and produced 1,700 lbs. or a total of 3,600 lbs. The bench area planted was 716 square feet thus the weight per square foot, was over 5 lbs.

#### HOW MANY CROPS PER YEAR.

The majority of greenhouse vegetable growers grow this vegetable only as an early summer crop following lettuce, but when there is a demand at good prices for tomatoes during the entire year it might be well for some of the growers at least, to cater to this trade. Our system at the college has been to have our first fruits ripening about the 15th of October, the crop lasting until first or second week in January. The same house is replanted and picking commences again third week in April continuing until July. You will notice that there is a period of three months in which no fruit is being produced. To fill this gap fruit would have to be set during the duldest months of the year, November, December, and January, and in this part of the country it is practically impossible to obtain a setting of fruit in sufficient quantities to make it pay. To complete the season until fruit from the field is available, another house is planted following a third crop of lettuce or violets. In order to produce these crops at the times stated, the seeds are sown as follows. For fall and early winter, seeds are sown June 25th. Spring and early summer crop October 25th, summer crop December 20th. For the fall crop the seedlings are pricked off into boxes 4 inches apart and planted direct from the boxes to the bench. The seedlings of the second crop are pricked off 3 inches apart in boxes and later potted into 3-inch pots which carry them nicely until benches are available. The plants for the summer crop are carried along in 4 1/2-inch pots until the third crop of lettuce or violets is finished.

#### SOIL AND PLANTING DISTANCES.

For preference a good sandy loam is best, but experience has shown me that good crops can be grown on a variety of soils providing that good drainage is given. Sandy soils give better aeration and dry quickly on the surface, which is important in the control of mildew or leaf mold. At the college the crops for the most part are grown on either raised benches or raised beds which allow a depth of from five to six inches for soil. The soil grows two crops. If this soil has been composted from fairly good sod, very little manure is added as the presence of an excess of manure is apt to cause very rank growth in the early stages. For the second crop, however, a heavy dressing of manure is given or a liberal supply of bone meal, the plants later being given commercial fertilizer or liquid manure. With permanent soils, annual applications of stable manure will usually be sufficient but should the growth indicate the need of additional plant food, liquid manure, mulching of manure, or a quickly available commercial fertilizer may be given.

For the two main crops which pass the half of their period of growth during the cold months of the year I prefer benches for reasons already given. For the late crop the solid bed is best for the reason that the soil is usually of greater depth, requiring less frequent watering, especially during summer weather.

Experiments were conducted here for several years to arrive at something definite. We found that from a commercial standpoint 18 to 20 inches apart gave the largest yields per square foot. The fall crop is spaced 18 inches apart as excellent weather conditions obtain during the setting period. The spring crop is spaced 20 inches apart on account of the less favorable conditions during the early period of growth.

#### HOUSE MANAGEMENT FOR TOMATOES.

Strong wire stakes stiffened by two comparatively thin longitudinal wires, one-half way up, the other near the top, gives excellent support, but possibly the simplest way is to use binder twine fastened to longitudinal wires, near the base and overhead. Each plant is trained

to a single stem, laterals being removed as soon as large enough to handle. When the desired height had been reached, which in the case of the fall crop, followed by spring crop, should not exceed 6 feet the top is broken off. Leaf pruning should be practiced to the extent of reducing shade and to allow for a circulation of air. This leaf pruning should not be carried to excess as maximum yields depend to a market extent on amount of foliage retained.

Pollination is a very important matter and must receive proper attention if maximum yields are expected. The best means of distributing the pollen grains is by using a rabbit's tail or piece of similar fur. Attach this to a small stake and go from truss to truss with the fur; in this way the pollen is carried from stamens to pistil. This should be done at noon or after noon hour. In order that conditions be as favorable as possible for pollination, the air in the house should be as dry as possible. All watering should be done early in the morning if possible, or soon after pollination.

Proper watering is an important factor in regulating plant growth. After plants are set in the beds, the soil immediately surrounding each should receive water, the area watered being increased as growth demands it, until a watering of the entire bench or bed is necessary. Subsequent watering when this is necessary should be thorough. Care should be exercised in watering during the period of pollination: this should be done early in the forenoon on bright days in order that the air may be dry enough for pollination at noon or immediately after. Watering at all times should be so regulated that it is done early enough on bright days so that ventilation may be given to decrease the humidity. In brief, as dry atmospheric conditions as possible at all times should be the aim.

The temperature maintained by the heating system should be as even as possible. Sudden changes one way or the other will weaken the plants and cause them to be more susceptible to disease. We have found that for our climate a night temperature of 58 to 60 degrees is best; this temperature is maintained during the dull or very cold weather. During fine weather the day temperature may be increased five degrees by fire heat before ventilation is given. Ventilation should be very carefully given during cold weather, especially if there is not much head room from plants to ridge. During fine mild weather abundance of ventilation should be given.

#### SERIOUS INSECTS AND DISEASES.

Green aphid are sometimes troublesome and are controlled by tobacco fumigation, evaporated nicotine, or spraying with nicotine solution. White fly is very troublesome, and unless kept in check will cause considerable damage. A sticky substance is exuded from the larva and pupae, which, falling upon the upper surface of the lower foliage gives it a shiny appearance. A dark fungus growth forms on this substance which hastens the destruction of the leaves already weakened by the white fly or leaf mold. The only effective means of control is by fumigating with hydrocyanic acid gas. This gas is produced by combining potassium cyanide, sulphuric acid and water in the following proportions: Potassium Cyanide,  $\frac{1}{4}$  oz.; sulphuric acid,  $\frac{1}{2}$  oz.; water, 1 oz. to 1,000 cubic feet.

A clear still night should be chosen with dry interior conditions.

Nematodes or eel worms are minute worms which enter the roots, live on the cell sap and cause the formation of galls on the roots. If the worms are numerous, the plants attacked become weakened and when badly infected usually die before they ripen any fruit. The only known means of control is steam sterilization. Numerous devices are used for applying the steam to the soil. The method adopted at Macdonald college is to lay 3-inch drain tiles in rows 18 inches apart and as deep as the drainage materials will allow. The soil is levelled over, firmed down by walking over it, watered and covered with several thicknesses of newspaper to keep steam in the soil as much as possible. Steam is then led into the tile by making a connection on the heating system. This is left on from 2½ to 4 hours according to the type of bench. This method, while not perfect, is satisfactory.

There are a number of diseases which tomatoes are subject to, any of which may cause considerable trouble and possibly loss.

Leaf mold is a fungus which appears on the under side of the leaves in the form of a white velvety mold which later changes to a greyish brown color. As their size and number increase the whole leaf loses its color, curls up and dies. This disease, though common in some parts of this continent is new to us here. It made its first appearance on the fall crop of 1918. This year again it made its appearance and I was at a loss to know what to do, but as it was a fungus, the plants were immediately dusted with flowers of sulphur to which a little lime was added to make the sulphur stick. This did not seem to check it a bit, with the result that the crop was rather a poor one. Careful watering and ventilation combined with steady temperatures are possibly the best means of preventing this fungus. Spraying with bordeaux mixture is recommended by some, but with doubtful results.

Fusarium Wilt has not been serious with us. The plants affected by the disease show a yellowing of the lower foliage which spreads upward. The plants finally wilt and die. Steam sterilization of the soil and the removal of affected plants before spores are produced is the surest means of controlling this disease.

Plants affected by tomato mosaic show pale green patches and the normal green of the leaf, giving the foliage a mottled appearance. Badly affected plants drop most of their blossoms. Very little is known as to the cause and control. Some authorities suggest that

the disease may be spread in pruning operations. Address by A. H. Walker, Macdonald College, Quebec, at the Ontario Vegetable Growers' Convention.

### Growing Tomatoes Successfully.

EDITOR "THE FARMER'S ADVOCATE":

Many persons throughout Canada have essayed tomato growing, but some have not succeeded. Therefore this luscious fruit-vegetable is not as widely used as it might be because its scarcity makes it high priced. But the tomato is really one of the most easily cultivated vegetables, and, instead of being a luxury, should be a daily visitor to every table. Its health-giving properties make it deserving of greater consideration as an article of food.

The tomato, contrary to most people's idea, is a hardy plant that will adapt itself, under proper care, to climatic conditions, and may be grown indoors or out. The writer grows them out of doors in summer, and in the windows of the living room in winter, having the ripe red tomatoes available in March when they are practically unobtainable on the market. When growing tomatoes, four points are essential—quality, appearance, and productiveness, as well as good shipping qualities.

The first consideration is to secure the proper seeds. Do not waste time, labor or ground in growing an inferior variety when the finest fruits can be had without any increased expense. Because of the tropical origin of the tomato, it requires a long season for its growth and development, and on this account, in order to secure paying crops, it is necessary to resort to methods for the lengthening of the growing season. It is easier for the gardener to accomplish this while the plant is small than when it is large, and because early fruits are more valuable than late ones, it is of advantage to the gardener to secure the crop as early in the season as is practicable.

The lengthening of the season is accomplished by sowing seeds in hot beds, in greenhouses, or even in boxes placed in the windows of the dwelling house, several weeks in advance of the time when they could safely be planted in the open. Arrange to have two dozen or more strong, stocky plants ready to set out as soon as the weather becomes warm enough in the spring, which is about the time our native trees are in full leaf, about the twentieth of May. For this purpose the seed should have been planted about the last week in March, in the hot bed, or in a shallow box or rich soil, placed in a sunny window of the dwelling. Sow seeds thinly, and when the young plants show the third leaf, transplant to flower pots, or thin to four inches apart each way in the hot bed. As soon as the plants have become well rooted, give fresh air freely on all warm days so as to keep the growth dwarf and compact, and if planted in small pots replant in larger pots before they become stunted. If the plants are allowed to grow tall and spindly from standing too closely, the advantage of the early start will be lost. For a few days before the plants are to be set out, they should receive fresh air by ventilation at night, and if there is no danger of frost, the covering of the hot bed can be removed to harden the plants and prepare them for transplanting to the open ground.

Treated in this way the plants should be ready to flower as soon as set out, and it is from this first cluster of blossoms that the earliest fruits are produced. Should there be danger of frost after the plants have been set in the garden, they can be protected at night by covering each plant with a box or pail, removing the covering during the day, and replacing it at night whenever there is danger of frost. In re-setting the plants from the bed to the garden, as much soil as possible should be taken up with them, and a hole large enough to receive the roots and adhering soil should be made in which to set the plants. If the weather is dry, water should be put in the holes before setting, and after the plant is set, dry earth should be drawn up and packed firmly about the stem. When the plants take hold of the soil and start into new growth, loosen the soil about them and keep constantly loose and fine by frequent hoeing. For earliest returns it is desirable to train forced plants to a single stem by tying them to stakes, four or five feet in height. The stakes should be firmly driven into the ground beside the plants, and the plants fastened to them by wide bands of cotton, to prevent the wind whipping them about and to keep the fruit off the ground. Water the plants with water, in which some commercial fertilizer or poultry droppings has been dissolved, about three times weekly. All side shoots must be kept pinched out, only the central stem being allowed to develop, but the side shoots must not be despised. Set them out, and they will speedily develop into husky plants for later fruiting. Set all plants two feet apart in the rows, and allow three feet between rows.

When the early plants start into growth early in June, a second sowing of seed can be made in a drill to furnish plants for a late summer and fall crop. These will come into bearing after the early plants have ceased to produce fine fruit. This seed should be sown very thinly, so that the plants may develop a compact, sturdy growth in the seed bed, and if they come up too quickly the plants should be thinned out to stand five inches apart each way, which will give you a stocky plant ready for transplanting about six weeks after the seed is sown. These plants can take the place of the early peas, radishes, etc., which have already been gathered in districts where two sowings are worth while. If the ground is not yet clear, they can be set out at the present distance apart, between the rows of these crops, which will shortly be removed. While these late settings

will well repay the extra labor of training them to stakes, they will do quite well if set five feet apart and allowed to trail upon the ground. Late vines produce less leaf growth, and fruit sets more quickly and more heavily than in early planting, because of warmer weather conditions. Late planting is not only desirable to keep up the supply of fine fruit for the table, but also furnishes a supply of nice, solid fruit for canning and other culinary purposes. A good supply of large, well-developed green fruit can be gathered just before frost, and put away in a cool, dry cellar to ripen, thus continuing the supply of fresh, ripe fruit well into the winter.

In putting the fruit away for fall and winter use, they should be spread out thinly and allowed to ripen slowly so that they will be in good condition for about nine weeks after they have been taken from the vine. In preparing the soil for growing tomatoes, it should be made very rich with well-rotted manure, to give the plants nourishment enough to make a strong growth and ripen a large crop of fruit. Fresh manure should not be used for this purpose in the spring, as it will cause an extra growth of vine and foliage, so that the fruit would not mature until quite late in the season.

An excellent plan for the home garden is to dig the fresh manure into the soil in the fall of year, that it may be absorbed during the winter months, thus making the soil in the best possible condition for spring planting. Commercial fertilizers are good on heavy soils, and should be applied broadcast on the surface after the soil has been spaded and raked into the surface when preparing the soil for planting. The second application, about a handful for each plant, can be hoed in near the roots, after the plants are well grown and commence to fruit, and will prolong the season of growth and bearing. To protect the young plants from black flies, dust with tobacco dust or finely-ground plaster, or dust from the highway. Leaf blight and leaf curl can be prevented by the use of Bordeaux mixture as a spray, and if a little Paris green be added to the mixture, it will do away with cut worms and other insect pests. Tomato rot, which appears on the blossom end of the fruit, may be guarded against by pulling off any fruit showing this as soon as it appears.

Halifax Co., Nova Scotia.

M. McLAREN

## POULTRY.

### Simple vs. Compound Poultry Rations.

Trials of simple mixtures of common grains along side of mixtures containing a greater variety of feeds for poultry were conducted at the Michigan Agricultural College, and are reported in the following brief paragraphs from a bulletin of that station. We present them herewith for those who are interested in feeding for egg production:

"To determine the value of a greater variety in the scratch grain and dry mash rations for laying hens, the following mixtures were fed to like pens and like numbers of S.-C. White Leghorn pullets. A difference of 97 eggs in production in favor of the simple ration was noted from this experiment. The rations used were as follows:

SIMPLE RATIIONS.	COMPLEX RATIIONS.
Scratch Grain:	Scratch Grain:
100 lbs. cracked corn	100 lbs. cracked corn
100 lbs. whole wheat	100 lbs. whole wheat
	100 lbs. kaffir corn
	100 lbs. barley
	40 lbs. buckwheat
	25 lbs. sunflower seed
Mash:	Mash:
100 lbs. wheat bran	100 lbs. cornmeal
100 lbs. ground oats	100 lbs. wheat bran
40 lbs. meat scrap	100 lbs. middlings
	150 lbs. gluten feed
	100 lbs. meat scrap

"Both pens received liberal quantities of buttermilk and sprouted oats each day. Oyster shell and grit were available for free access at all times. The pens were artificially lighted from 5.30 to 7.30 in the morning and from 4.30 to 6.30 in the evening, to approximate the average daylight and working hours for the fowl under summer conditions. By so doing we have found the egg production to be increased about one-fourth for the winter months.

"All fowls were trap-nested and kept in well-ventilated, muslin-front pens. The fluctuation of the curves in the accompanying graphs are accounted for by a similar drop of the thermometer. During the warmer periods both pens produced more abundantly, as has been shown heretofore is the case with egg yields. Commensurate with the temperature curve and the daylight curve the egg production fluctuates.

"The results of this experiment seem to warrant the continued use of the more common grains as the basis of rations for good egg production."

Constant care and attention is necessary for the successful incubation of eggs and the brooding and rearing of chicks. The Dominion Experimental Farms recommend that if more than one hundred chicks are desired an incubator is almost a necessity. If hens are used only those which seem determined to set should be allowed to do so. They should not be clumsy or nervous on the nest. Be sure that the sitting hen is absolutely free from all vermin, and that she has plenty of fresh water and some whole grain every day.

## Hatches Seventy-five Per Cent.

EDITOR "THE FARMER'S ADVOCATE":

In your issue of the 18th inst., under "Poultry," as to the hatching and fertility of eggs you give some good instruction on poultry keeping, but not much to encourage your discouraged correspondent.

My first experience with an incubator was about forty years ago, and the incubator consisted of a metal tank about two feet square, inside a wooden box or casing, with about three inches of sawdust packed between the tank and case. Under the tank was a drawer for the eggs, and under that a tray to hold wet sand, a screw plug in the top of the tank and a tap at the bottom through the side to draw off water. No lamp or other heating arrangement was used. I filled the tank with boiling water and allowed it to stand three days before putting the eggs in the drawer. A thermometer was placed in the drawer. I drew off about two gallons of water from the tap and poured in at the top the same quantity of boiling water every twelve hours, and hatched ninety to ninety-five per cent.—strong chicks.

Since then I have had various incubators, and though the modern ones are less trouble, it would be difficult to get better results, though with any of them if I did not get seventy-five per cent. healthy chicks I would consider it very bad. The poultry-keeper when gathering the eggs for setting should keep them large end up. When in the incubator, turn the eggs every day and give plenty of ventilation, and finally, just before they are due to hatch, put the eggs in water at 104 degrees Fahrenheit and give them a good soaking. And above all things see that the rooster is not related to the hens from which the eggs are gathered. If the poultry keeper gives intelligent care there should be nothing like twenty-five per cent. mortality.

MORRIS MCD. STEVEN.

Sunbury Co., New Brunswick.

## FARM BULLETIN.

### Dairy Council Activities.

Secretary D'Arcy Scott, of the National Dairy Council of Canada, informs us that the Board of Railway Commissioners have delivered a final judgment granting the request of the council for the dismissal of the railway company's application for increased rates on milk in baggage cars. The old rates are confirmed as they existed prior to May 1, 1919 and Mr. Scott says that many thousand dollars annually are saved to the dairymen by this decision secured by the Council.

We are also informed that on March 16 the application of the railway companies for the elimination of commodity rates on cheese to Montreal came before the Board of Railway Commissioners. Mr. Scott was assisted by officers of the Eastern Ontario Dairymen's Association, officers of the Ontario Department of Agriculture, and the Montreal Board of Trade, in opposing this application. We quote Mr. Scott as follows: "We pointed out that in other cases the Board had come to the conclusion that where a stable article of food enjoyed a commodity rate, that rate should not be cancelled. We also pointed out that cheese had been subject to the three general increases, which had gone into effect in the last few years. We showed that the cost of producing cheese had gone up more rapidly than the selling price of cheese, and that in the present unsettled state of the cheese market, the trade could not stand any further increase in rates. We therefore urged that the Railway Companies Application be dismissed. The Railway Commission reserved its decision. I am inclined to the opinion that the present rate will not be interfered with under present conditions."

### The Provincial Legislature Prepares to Work.

"The Debate on the Address," the oratorical production that had such a phenomenal run in Queen's Park, Toronto, is ended. Two weeks ago we could have broken the news with a stronger feeling of satisfaction, but we can still feel more or less happy in the recollection that "it might have been worse." You see, only twenty-nine of the 110 members of the House spoke, so that the Province was spared the expense of waiting until the other eighty had also performed. That is some consolation, we must admit, but there is little consolation in remembering that it took our 111 men in Toronto about as long in 1920 to deliver these 29 speeches as it did for Sam Hughes in 1914 to rustle up over 30,000 men and get them away to England, fully equipped and ready for war. Sir Sam had something to show for his time, but all our talkative members can show is a message to the King which in substance reads something as follows: "Your Majesty's speech received. Many thanks." Well, it's nice to think that it's over anyway, isn't it?

After completing the arduous duties already mentioned, it seemed to relieve everybody to take a preliminary center up and down the legislative line-up. The Easter recess was coming along, and two days was hardly sufficient time in which to descend from the ridiculous to the practical. Still they did manage to go a considerable distance and we expect—no, we should be truthful and say we hope—that the present week will usher in a more practical and hard-working dispensation. The Honorable Peter Smith, Provincial Treasurer, is on Tuesday, April 6, to deliver his budget speech. This will be some event because it will be Mr. Smith's "maiden" speech as Provincial Treasurer; it will embody

the first financial proposals of the new Coalition Government; and even without these two circumstances it always stands as the one matter of vital interest to the voter who wants to know how things are coming financially.

Agriculturally, there are two bills before the House that are important. There are more, of course, but these two introduced by the Minister of Agriculture are of considerable interest. The one is of marked interest to dairymen and has been referred to before. It is designed to protect the patrons of factories or companies where milk and cream purchased from producers is paid for according to milk-fat test. It does not concern itself with cheese factories or other companies where milk is not paid for according to test. This bill has received its second reading and has been referred to the agricultural committee. The second bill has also been referred to before, and has reached the same stage as the one just discussed. It has to do with the establishment of community halls and athletic fields and with providing grants for encouraging the same. Last year a bill of this nature was passed, and the present bill is a revision. Full particulars will be given readers of "The Farmer's Advocate" regarding both the bills when they are finally passed. It is a hopeful sign also to note another bill, introduced by one of the members, designed to shut out the quack veterinarians who have for so long been allowed to practice for fees in Ontario. Qualified veterinary practitioners in Ontario and, in fact, in Canada are too few, and young men are deterred from entering the profession in Ontario because of the fact that quacks are allowed to commit their depredations on the live stock of the farmer unchecked.

By a bill introduced by the Provincial Treasurer, the Province proposes to take a much heavier slice than formerly out of inherited estates. The succession duties are to be greatly increased, especially in the case of large estates which pass to non-relatives. Where the estate is from \$25,000 to \$50,000 and passes to wife, husband, children, parents, etc., the Act remains unchanged at one per cent. On estates up to \$150,000 the rate has been increased by 1/2 per cent., and from there on the succession duty increases by 1/2 per cent. for each additional \$100,000 until 10 per cent. is collected from estates of over \$1,000,000. Where from \$50,000 to \$100,000 passes to one relative, 2 1/2 per cent. will be exacted as compared with one per cent. at present. As the law now reads, 5 per cent. is exacted on all over \$450,000 passing to one relative, but the new Act will take 7 per cent. of all over \$400,000 and a regularly increasing amount from larger bequests until an estate of \$3,000,000 passing to one relative would yield 45 per cent. of the total. Where the estate goes wholly or partly to ancestors other than parents or grandparents or to aunt, uncle or their descendants, the province will take 5 per cent. of all amounts between \$5,000 and \$25,000, and 25 per cent. of all amounts over \$1,000,000. Individual amounts passing to relatives of this class will be made to yield an additional tax amounting to 6 per cent. on amounts of \$25,000 to \$50,000, and a maximum of 60 per cent. On amounts passing to others than relatives, 10 per cent. will be collected on amounts of from \$5,000 to \$10,000, and as high as 60 per cent. of amounts over \$800,000. Estates will have 18 months to pay their taxes.

Two bills fostered by the labor element in the Government caused some argument during the week and developed some opposition. One bill proposes to extend the municipal franchise to all adults of a family, provided the head of the house has the necessary qualifications and provided all of the family reside at home. This bill means that if a man has the right to vote in all municipal affairs and has a wife and four adult children, all six may vote on the father's qualifications instead of only one as formerly. The other bill is one permitting any householder to offer himself without further property qualification as a candidate for municipal office. The bald effect of this bill would be that the "reddest" Bolshevik extant could, if he managed to find lodgment with his family in a hovel on the outskirts of the largest city in Ontario and paid a rental of 50 cents per month, offer himself as a candidate for mayor without further endorsement than the fact that he was a householder and maintained a home. Whether he could get elected or not would be a different matter and the argument that is offered in favor of letting him force his name on the ballot paper is that the people can be trusted. The general argument in favor of the bill is that the home is the important thing in municipal or national life and that the man who lives in the house pays the taxes whether he rents or owns. It is said also that brains and not mud—or money—count, and this also seems to "listen" like democracy. One naturally is inclined to pull back in the harness when something like this comes along, because it is impossible not to fear the advent in municipal affairs of some blissful ignoramus who may fancy that his ability to spend other people's money is equal to his own conceit and his ability to bluff the people. It has been said that the few create and the many enjoy civilization, and if this is literally and absolutely true there would seem some sense and justice in the contention that if a man—householder if you like—cannot or does not desire to acquire the small amount of property now required for qualification, his brains are not of the right variety to inhabit the head of a municipal officer. But then they come back at you with William Ewart Gladstone and John Bright, who were unseated from small burrough councils in England in times past because they lacked property qualifications, and point out what outstanding national figures they eventually became. No doubt they also came to own property too. Then, it is argued, there are no property qualifications needed for a member of the Provincial Legislature, and why

should they be required in the lesser sphere of municipal affairs. An answer comes back quickly that in municipal affairs taxation is direct and that matters are entirely different when the agony of paying taxes is short and sharp from the alternative condition when the so-called "painless" method is followed and the bewilderment of indirect taxation is experienced. This argument sounds weak and it is just as weak as it sounds, because taxes are taxes just the same as "pigs is pigs." Nevertheless, it does seem ridiculous to imagine a mayor or a reeve of a township who in private life is a street cleaner or a hired man (no office to either since both may be brainy and democratic) with no right to vote on money by-laws. However, the debate on the second reading of this bill is adjourned in the Legislature and probably some new arguments will be thrown into the scales one way or the other. Whichever way it goes, so long as we are just and democratic in our laws, what matters a few peeved citizens? Like old High Cost of Living, they are always with us.

### Canada's Railways Have Heavy Deficit.

During last week at Ottawa it was brought out by Dr. J. D. Reid, Minister of Railways and Canals, that the Canadian National Railways System, including the Grand Trunk Pacific, had a total deficit in 1919 of \$47,000,000, made up approximately as follows: Operating loss on C. N. R., \$6,500,000; operating loss on I. C. R. and Transcontinental, \$7,500,000; operating loss on G. T. P., \$5,500,000; fixed charges on G. T. P., \$8,500,000; interest and fixed charges on C. N. R., I. C. R., and Transcontinental, \$19,000,000. The National System, not including the G. T. P., earned \$94,000,000 during 1919, or almost \$12,000,000 more than 1918, notwithstanding which the operating loss was \$14,000,000. On the whole system, operating costs, exclusive of the G. T. P., jumped from \$84,000,000 to \$108,000,000, the wage bill having exceeded \$73,000,000, an increase of \$39,000,000 during the year.

The estimates have been tabled in the House and show that while Canada's expenditure for the fiscal year ending March 31, 1920, will total \$900,852,231.73, for the fiscal year ending March 31, 1921, the estimates call for an expenditure of \$537,149,428.09, or a decrease of \$363,702,803.64. During the present fiscal year, expenditure has been largely increased by a war appropriation of \$350,000,000, in addition to \$40,000,000 for an emergency employment fund, \$40,000,000 for Government ship building \$25,000,000 for housing, and \$35,000,000 for railway equipment. Apparently \$38,000,000 will be required for demobilization during the next fiscal year, while \$20,000,000 will be expended for ship building, \$13,000,000 for housing and nearly \$17,000,000 for railway equipment. The increase in interest and sinking fund payments necessitated by the Victory Loan last fall amounts to \$35,433,613.87. Two million dollars will be required for the completion of the new Parliament Buildings and \$1,000,000 for Canada's share of expenditure made by the Imperial War Grades Commission. Of the \$537,149,428 asked for by the Finance Minister, \$440,496,333 will come from the consolidated revenue fund, \$68,189,695 for capital services, in addition to the amount required for demobilization. The appropriation authorized by statutes show an increase of \$35,924,596.68 over the present fiscal year. The soldiers' land settlement will require \$50,017,000, an increase of about \$5,000,000.

### Higher Price for Graded Butter.

It is understood that at a largely attended meeting of the Toronto Produce Exchange, on Thursday, April 1, all members present agreed to pay a differential of one per cent. per pound of properly pasteurized and graded creamery butter over unpasteurized and ungraded. This arrangement will take effect after May 15, provided fifty per cent. of Ontario butter offered for sale in 56-lb. boxes will be graded and properly pasteurized, and a certificate of grade and pasteurization furnished covering each churning. The wholesale produce merchants and brokers of Ontario and members of the Canadian Produce Association have pledged their support to bring about the grading of all creamery butter in Ontario. With regard to pasteurization, 170 degrees Fahrenheit for ten minutes is recommended.

### Summer Milk Price Being Arranged.

During the last two or three weeks, several meetings with milk distributors have been held by the Ontario Milk and Cream Producers' Association, in order to bring about a satisfactory arrangement with regard to the summer price of milk. A meeting of the executive of the Producers' Association met the distributors on Thursday, April 1, and it is understood an agreement was reached subject to the ratification of the general producers' meeting to be held Monday, April 5. The general basis of this agreement is said to be that while the price to the consumer will remain the same, the price to the producer will vary during the various months, being highest toward the end of July and August and lowest during a flush season in June.

of training them to stake  
feet apart and allowed  
vines produce less leaf  
quickly and more heavily  
use of warmer weather  
not only desirable to keep  
table, but also furnishes  
anning and other culinary  
of large, well-developed  
just before frost, and put  
to ripen, thus continuing  
well into the winter.  
for fall and winter use,  
only and allowed to ripen  
good condition for about  
taken from the vine.  
owing tomatoes, it should  
rotted manure, to give the  
make a strong growth.  
t. Fresh manure should  
in the spring, as it will  
and foliage, so that the  
ite late in the season.  
ome garden is to dig the  
e fall of year, that it may  
er months, thus making  
dition for spring planting,  
on heavy soils, and should  
surface after the soil has  
e surface when preparing  
econd application, about  
e hoed in near the roots,  
and commence to fruit,  
of growth and bearing.  
om black flies, dust with  
blaster, or dust from the  
of curl can be prevented  
re as a spray, and if a  
e mixture, it will do away  
ent pests. Tomato rot,  
end of the fruit, may be  
any fruit showing this

M. McLAREN

RY.

ound Poultry

AS.

of common grains along  
greater variety of feeds  
the Michigan Agricul-  
l in the following brief  
at station. We present  
re interested in feeding

a greater variety in the  
s for laying hens, the  
pens and like numbers  
s. A difference of 97  
the simple ration was  
the rations used were as

COMPLEX RATIONS.

atch Grain:  
00 lbs. cracked corn  
00 lbs. whole wheat  
00 lbs. kafir corn  
00 lbs. barley  
00 lbs. buckwheat  
25 lbs. sunflower seed  
h:  
00 lbs. cornmeal  
00 lbs. wheat bran  
00 lbs. middlings  
00 lbs. gluten feed  
00 lbs. meat scrap

quantities of buttermilk  
Oyster shell and grit  
at all times. The pens  
to 7.30 in the morning  
ng, to approximate the  
urs for the fowl under  
ng we have found the  
out one-fourth for the

nd kept in well-venti-  
ctuation of the curves  
e accounted for by a  
During the warmer  
e abundantly, as has  
ease with egg yields.  
ature curve and the  
s fluctuates.

ent seem to warrant  
ommon grains as the  
action."

necessary for the suc-  
brooding and rearing  
mental Farms recom-  
d chicks are desired  
ty. If hens are used  
to set should be allow-  
e clumsy or nervous  
ing hen is absolutely  
he has plenty of fresh  
y day.

# Toronto, Montreal, Buffalo, and Other Leading Markets

Week Ending April 1. Receipts and Market Tops.

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

CATTLE						CALVES					
Receipts			Top Price Good Steers (1,000-1,200)			Receipts			Top Price Good Calves		
Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending
Apr. 1	1919	Mar. 25	Apr. 1	1919	Mar. 25	Apr. 1	1919	Mar. 25	Apr. 1	1919	Mar. 25
Toronto (U. S. Y.)	3,766	5,552	6,999	\$13.75	\$15.50	\$13.75	2,239	1,157	1,988	\$25.00	\$17.00
Montreal (Pt. St. Chas.)	358	408	908	13.75	15.00	1,525	2,511	1,031	17.50	14.50	17.00
Montreal (East End)	433	513	368	13.75	15.00	1,405	1,058	965	17.50	14.50	17.00
Winnipeg	1,731	3,101	1,386	12.25	15.25	82	113	145	15.00	14.50	16.00
Calgary	1,462	1,926	1,959	13.80	14.00	130	—	231	11.00	14.50	16.00
Edmonton	1,100	442	667	12.50	13.50	35	141	77	15.00	10.25	12.00

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	Week Ending	Same Week	Week Ending
Apr. 1	1919	Mar. 25	Apr. 1	1919	Mar. 25	Apr. 1	1919	Mar. 25	Apr. 1	1919	Mar. 25
Toronto (U. S. Y.)	3,141	5,379	7,193	\$19.25	\$20.50	\$20.50	154	287	671	\$20.00	\$20.00
Montreal (Pt. St. Chas.)	918	1,178	1,112	19.75	20.25	20.25	32	95	75	16.00	17.00
Montreal (East End)	651	630	969	19.75	20.25	20.25	91	61	42	16.00	17.00
Winnipeg	1,678	8,282	3,590	21.00	19.75	23.00	136	156	162	15.75	15.50
Calgary	1,042	2,012	665	20.75	19.50	20.75	1,007	601	365	13.00	13.00
Edmonton	1,105	431	1,190	20.50	19.50	20.60	244	14	12	13.00	15.50

## Market Comments.

### Toronto (Union Stock Yards).

Receipts for the week were comparatively light, and trading was featureless, with few changes in prices. Only seventeen hundred cattle were on hand on Monday, but while commission firms endeavored to advance quotations, they were only successful in obtaining slight advances in a very slow market. On Tuesday, trading was quiet, but on Wednesday it became more active, and cattle were marked up fully 25 cents per hundred, all classes participating in the advance. The week's supply was barely sufficient to take care of the local trade and very few cattle were purchased for export to Buffalo, while shipments of stockers and feeders to country points were limited to a few hundred head. The quality on the whole was good, many choice cattle being on sale. The offering included about one hundred head of heavy cattle, and these were readily absorbed at prevailing prices; five steers which averaged close to fourteen hundred pounds were sold at \$14.50 on Monday, and the best load, which averaged thirteen hundred pounds, went to the scales at \$13.30. The balance of heavy class sold during the week from \$13 to \$14.25 per hundred. For steers ranging in weight from ten hundred to twelve hundred pounds, a top price of \$14 was paid, three steers which averaged eleven hundred pounds being weighed up at that price. Numerous small loads moved from \$13.25 to \$13.75 per hundred, while the best straight load averaged eleven hundred pounds, and realized \$13.25 per hundred. Handy-weight butcher steers included many of baby-beef quality, and these in most cases commanded a premium; one bullock which weighed seven hundred and eighty pounds topped the week's market at \$15.75, several sales were made from \$13.50 to \$13.75, straight loads sold up to \$13, thirteen head which averaged nine hundred and eighty pounds bringing that figure, while numerous small drafts moved from \$12.50 to \$13. The big proportion of the good quality handy-weight cattle moved, however, from \$11 to \$12.50 per hundred, medium quality from \$9.50 to \$10.40, and common stock from \$7 to \$9 per hundred. Cows and bulls were in good demand at steady to firmer values. One cow which weighed fourteen hundred and eighty pounds sold at \$15, a pair of cows which averaged thirteen hundred and thirty pounds at \$14.25, and best quality generally from \$10.25 to \$11.50 per hundred. Choice bulls sold from \$10 to \$11.35, and at a top of \$12.50; common quality in both cows and bulls ranged from \$7 to \$9.50 per hundred. On account of the light supply, the stocker and feeder trade was scarcely as brisk as formerly; good feeders were quoted from \$10.50 to \$11.50 per hundred, stockers from \$9 to \$10.50, and grass cows from \$7.50 to \$9. The milk cow trade was quiet, good milkers selling from \$140 to \$170 each, medium quality from \$100 to \$140, and common from \$70 to \$100. Calves are being marketed in increasing numbers, and following a decline on the Buffalo market, local prices were also easier. One calf which weighed two hundred and twenty pounds sold at \$25 on Monday, while low sales were made from \$21 to \$24. Top quality calves averaged \$13.75

TORONTO					MONTREAL (Pt. St. Charles)				
CLASSIFICATION	No.	Avg. Price	Price Range	Top Price	No.	Avg. Price	Price Range	Top Price	
STEERS heavy finished	68	\$13.69	\$12.75-\$14.35	\$14.50	—	—	—	—	
STEERS good 1,000-1,200	190	12.72	12.00-13.25	13.75	19	\$13.60	\$13.50	\$13.75	
STEERS common 1,000-1,200	35	10.66	8.75-11.50	12.00	—	—	—	—	
STEERS good 700-1,000	1,032	11.75	11.25-12.75	13.00	41	12.00	11.50-12.50	13.50	
STEERS common 700-1,000	321	9.87	8.50-10.75	10.75	51	10.50	8.00-11.00	11.25	
HEIFERS good	757	11.89	11.00-12.75	13.00	18	12.00	11.00-13.00	14.00	
HEIFERS fair	165	10.48	9.50-11.25	11.75	4	9.75	9.00-10.25	13.00	
HEIFERS common	66	8.39	7.50-9.00	10.50	24	7.50	7.00-8.50	10.50	
COWS good	211	10.26	9.75-11.25	11.50	44	11.25	10.50-13.00	13.00	
COWS common	481	8.78	7.50-10.00	10.00	61	7.75	7.00-9.00	9.00	
BULLS good	100	10.36	9.75-11.25	11.50	11	11.00	10.00-11.50	12.00	
BULLS common	24	8.78	7.75-10.00	10.00	17	8.25	8.00-9.00	10.00	
CANNERS & CUTTERS	58	6.05	5.75-6.50	6.50	13	6.00	5.25-6.50	6.50	
OXEN	2	—	—	—	15	10.00	10.00	12.00	
CALVES veal	2,224	18.80	17.00-21.00	25.00	1,521	15.50	14.50-16.25	17.50	
CALVES grass	15	11.00	9.00-12.00	12.00	4	—	—	—	
STOCKERS good 450-800	179	10.25	9.75-10.50	10.50	—	—	—	—	
STOCKERS fair 450-800	43	9.00	8.50-9.50	10.00	—	—	—	—	
FEEDERS good 800-1,100	34	11.25	11.00-11.50	11.75	—	—	—	—	
FEEDERS fair 800-1,100	—	—	—	—	—	—	—	—	
HOGS selects	2,418	19.03	18.75-19.25	19.25	584	19.75	19.75	19.75	
HOGS heavies	32	18.00	17.75-18.25	18.25	9	—	—	—	
HOGS (fed and watered) lights	607	16.92	16.75-17.25	17.25	281	19.70	—	19.75	
HOGS (fed and watered) sows	84	14.90	13.75-16.25	16.25	38	15.75	15.75	15.75	
HOGS (fed and watered) stags	—	—	—	—	6	—	—	—	
LAMBS good	93	18.45	17.00-19.50	20.00	—	—	—	—	
LAMBS common	13	16.00	15.00-17.00	17.00	4	—	—	—	
SHEEP heavy	44	13.76	11.00-15.00	15.00	12	12.50	12.00-13.00	13.00	
SHEEP light	4	7.25	—	9.00	16	12.00	12.00	12.00	

Wednesday, most of the offering selling from \$17 to \$21, with common calves from \$10 to \$15. The sale of spring lambs continued to be the feature of the sheep market, and \$19 each was paid for a pair of spring lambs this week. Most of the sales were made from \$10 to \$17 each. Yearlings were moved at lower levels, \$19 to \$20 buying top quality, with ewes from \$10 to \$15. The hog market was weaker, packers making a determined effort to lower initial cost of hog products. On Monday \$19 to \$19.25 was paid for selects, but for the balance of the week, local packers were successful in buying fed and watered hogs at \$19.75, with a few decks going to local butchers at \$19, while as high as \$18.25 and \$18.50 l. o. b. was paid. The total receipts from January 1 to March 25 inclusive were 66,712 cattle, 11,148 calves, 83,064 hogs and 14,889 sheep; compared with 80,087 cattle, 9,377 calves, 88,878 hogs and 25,167 sheep.

### Montreal.

Seven hundred and seventy-two cattle, twenty-nine hundred and thirty calves and fifteen hundred and sixty-nine hogs were taken for sale during the week, compared with twelve hundred and twenty-six cattle, one thousand and one calves, and one thousand and one hundred

and eighty-one hogs, offered during the previous week. Receipts of sheep and lambs did not show much variation during the month of March. Good prices were paid for selected animals. One heifer which weighed eleven hundred pounds sold at \$14 per hundred, and four steers which averaged twelve hundred and seventy-five pounds moved at \$13.75. Choice fat cows and heifers brought \$13, and a straight load of steers which averaged ten hundred and ninety pounds was sold at \$13.50. Fat bulls which weighed from thirteen hundred and fifty pounds to eighteen hundred pounds brought from \$11 to \$12. Fairly good butcher steers with a few good heifers and fat cows sold in mixed lots at prices ranging from \$11 to \$12.50. One fat ox was sold for \$12. A number of rough oxen which averaged fifteen hundred pounds were sold at \$10. All other grades of cattle were slow to move at prices about equal with those paid during the previous week. There is an accumulation of frozen meat in stock and buyers are discouraging, as much as possible, the shipment of any large numbers of cattle to the markets at present, as dealing is not brisk. The top price for calves during the week was \$17, this figure being paid for a selected lot, numbering about eighty head. There are not nearly as many light calves being offered this year as last, and

a larger percentage than usual are selling around the top figure, or, for the past week from \$15 to \$16 per hundred. Very common calves brought \$10. Sheep sold from \$12 to \$13 per hundred, if of good grading and for \$11 to \$12 if common. Only one hundred and twenty-three sheep and lambs were offered, and no market was established. Despite the fact that there were about thirty per cent. fewer hogs on the market than during the previous week, prices ruled 50 cents lower. Nearly all sales were made at \$20 off car weights. The market closed unsettled. PT. ST. CHARLES.—The total receipts from January 1 to March 25, inclusive, were 6,971 cattle, 4,865 calves, 13,418 hogs and 4,769 sheep; compared with 8,985 cattle, 8,797 calves, 14,893 hogs and 5,013 sheep received during the corresponding period of 1919. East End.—The total receipts from January 1 to March 18, inclusive, were 8,715 cattle, 4,863 calves, 7,887 hogs and 3,797 sheep; compared with 10,895 cattle, 5,266 calves, 8,196 hogs and 5,509 sheep, received during the corresponding period of 1919. Winnipeg. The market opened under a fairly active demand at prices steady at the previous week's decline. Light receipts during the early part of the week was

APRIL  
responsi  
trading,  
occurred  
was firm  
some few  
were few  
butcher  
veal calf  
good pro  
to \$9.50  
The best  
\$11.50,  
from fair  
from \$8.  
Receipt  
Stock Y  
April 5,  
616 calv  
lamb.  
higher,  
25 to 50  
to \$15; b  
cattle, \$  
\$13.75 p  
cents hig  
\$11.50.  
Calves \$  
to \$20.  
ers bid, \$  
Manito  
liam).  
northern,  
Manito  
liam).—  
96c.; ext  
95c.; No.  
Manito  
liam). No  
\$1.47; fee  
Ontario  
according  
car lot, \$  
Americ  
prompt s  
Ontario  
outside).—  
Peas.—  
—No. 2,  
Barley.  
side)—M.  
Buckwhe  
outside)—  
Rye.—  
—No. 3,  
Manito  
ment star  
Ontario  
shipment  
to \$10.45  
Millfee  
real freig  
ton, \$45;  
flour, per  
Hay.—  
ton, \$27  
Straw—  
per ton, \$

**Markets**

Department of Agriculture, Live Markets Intelligence Division

**Top Price Good Calves**

Week Ending	Same Week	Week Ending
1919	1919	Mar. 25
17.00	17.00	17.00
14.50	14.50	17.00
14.50	14.50	17.00
14.50	14.50	17.00
10.25	10.25	12.00

**Top Price Good Lambs**

Week Ending	Same Week	Week Ending
1919	1919	Mar. 25
16.00	16.00	17.00
16.00	16.00	17.00
15.50	15.50	15.50
13.00	13.00	15.50
13.00	13.00	15.50

**NTREAL**

(Charles)

Price Range

Bulk Sales

Top Price

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

13.50

responsible for the slow condition of trading, and very few price changes occurred. Stocker and feeder movement was firm under heavier receipts than for some time. Butcher steers and heifers were few in number, as also were choice butcher cows, canners and cutters, and veal calves. Stocker steers and heifers of good promise moved readily from \$8.50 to \$9.50, and fair heifers from \$7 to \$8. The best feeder steers offered sold around \$11.50, and the majority, which were from fair to good grading, changed hands from \$8.50 to \$11.

**Toronto Produce.**

Receipts of live stock at the Union Stock Yards, West Toronto, on Monday, April 5, numbered 107 cars, 1,691 cattle, 616 calves, 1,446 hogs, 29 sheep and lambs. Active market, prices unevenly higher, in spite of 75 cents, but average 25 to 50 cents. Few top steers at \$14 to \$15; best loads of 1,000 to 1,100 pound cattle, \$13 to \$13.50; about one load at \$13.75 per hundred. Cows, 25 to 50 cents higher; best, \$10 to \$11; few up to \$11.50. Bulls slow at steady prices. Calves \$1 to \$2 lower. Best veal, \$19 to \$20. Sheep and lambs steady. Packers bid, \$18.75, fed and watered for hogs.

**Breadstuffs.**

Manitoba Wheat.—(In store Ft. William) No. 1 northern, \$2.80; No. 2 northern, \$2.77; No. 3 northern, \$2.73. Manitoba Oats.—(In store Ft. William) No. 2, C. W., \$1; No. 3, C. W., 96c.; extra No. 1 feed, 96c.; No. 1 feed, 95c.; No. 2 feed, 94c. Manitoba Barley.—(In store Fort William) No. 3 C. W., \$1.67½; No. 4, C. W., \$1.47; feed, \$1.35½. Ontario Wheat—f.o.b. shipping points according to freights)—No. 1 winter, per car lot, \$2 to \$2.01; No. 2 winter, per car lot, \$1.98 to \$2.01; No. 3 winter, per car lot, \$1.92 to \$1.93; No. 1 spring, per car lot, \$2.02 to \$2.03; No. 2 spring, per car lot, \$1.98 to \$2.01; No. 3 winter, per car lot, \$1.95 to \$2.01.

**American Corn.**

(Track, Toronto, prompt shipment.) No. 3 yellow, \$1.93; Ontario Oats.—(According to freights outside)—No. 3 white, \$1.02 to \$1.04. Peas.—(According to freights outside)—No. 2, \$3. Barley.—(According to freights outside)—Malting, \$1.78 to \$1.80. Buckwheat.—(According to freights outside)—\$1.65 to \$1.70. Rye.—(According to freight outside)—No. 3, \$1.83 to \$1.85. Manitoba Flour.—(Toronto)—Government standard, \$13.25. Ontario Flour.—(In jute bags, prompt shipment)—Government standard, \$10.25 to \$10.45, Montreal; \$11, Toronto. Millfeed.—(Car lots, delivered, Montreal freights bags included)—Bran, per ton, \$45; shorts, per ton, \$52; good feed flour, per bag, \$3.60 to \$3.75. Hay.—(Track, Toronto)—No. 1, per ton, \$27 to \$28; mixed, per ton, \$25. Straw.—(Track, Toronto)—Car lots, per ton, \$16 to \$17.

**Farm Produce.**

Butter.—Butter kept stationary during the week, selling as follows, wholesale: Fresh-made creamery squares, 68c. per lb.; creamery solids at 65c. per lb.; and choice dairy at 55c. to 60c. per lb. Eggs.—New-laid eggs also sold at practically unchanged prices, wholesale, namely 53c. to 56c. per dozen. Cheese.—Cheese also kept stationary, wholesale. The old at 32c. per lb., and new at 29c. per lb. Poultry.—Receipts were light and prices did not vary in poultry. The following prices being quoted for liveweight and dressed varieties to the producer. Live-weight prices—Chickens, spring, 30c. per lb.; chickens, milk-fed, 35c. per lb.; ducklings, 40c. per lb.; hens, under 4 lbs., 30c. per lb. hens, over 5 lbs. 35c. per lb.; roosters, 25c. per lb.; Guinea hens, per pair, \$1.25. Dressed.—Chickens, young, 35c. per lb.; chickens, milk-fed, 40c. per lb.; ducklings, 40c. per lb.; hens, under 5 lbs., 32c. per lb.; hens over 5 lbs., 35c. per lb.; turkeys, young, 55c. per lb.; roosters, 25c. per lb. Guinea hens, \$1.50 per pair.

**Seeds—Wholesale.**

Following are the prices that wholesalers were paying for alsike and clover at country points; alsike, No. 1 fancy, bushel, \$33 to \$34; No. 1, \$32 to \$33; No. 2 choice, bushel, \$31 to \$32; No. 3 bushel, \$29 to \$30.

Red Clover, No. 1 fancy, bushel, \$34 to \$35; No. 1 bushel, \$33 to \$34; No. 2, bushel, \$31 to \$32; No. 3, bushel, \$29 to \$30. Sweet clover, No. 1 fancy, \$21 to \$22; choice, \$19 to \$20.

**Seeds Retail.**

Dealers quote the following retail prices for clover and timothy seeds. Red Clover, high grade No. 1, Government, \$48 per bushel; No. 2 Government, \$45.60 per bushel; No. 3 Government, \$42.60 per bushel. Alsike, high-grade, No. 1 Government, \$45.60 per bushel; No. 2 Government, \$43.80 per bushel; No. 3 Government, \$41.40 per bushel. Alfalfa, high-grade, No. 1 Government, \$39 per bushel; alfalfa, Canadian-grown, No. 1, \$42 per bushel; sweet clover white blossom, fancy, \$29.40 per bushel; sweet clover white blossom, choice, \$27.60 per bushel; timothy, high-grade, No. 1 Government, \$11.52; No. 2 Government, \$10.32 per bushel.

Hides f.o.b. country points.—Beef hides flat cured, heavy, 22c. to 25c.; light, 25c. to 27c.; green hides, heavy, 20c. to 22c.; light, 24c. to 26c.; deacon or bob calf, \$2.50 to \$3; horsehides, country take-off, \$8 to \$10; No. 2, \$8 to \$9; No. 1 sheepskins, \$2.75 to \$3.75; yearling lambs, \$1.75 to \$2.50; horse-hair, farmers' stock, 40c. to 42c.

City Hides—City butcher hides, green flats, 25c; calf skins, green flats, 50c.; veal kip, 30c.; horsehides, city take-off, \$8 to \$10.

Tallow—City rendered, solids in barrels, 15c. to 17c.; country solids in barrels, No. 1, 12c. to 15c.; cakes No. 1, 15c. to 17c.

**Wholesale Fruits and Vegetables.**

Potatoes have been very firm the past few days; most of the wholesalers quoting them at \$5 per bag; a few still going at \$4.85 and \$4.90.

Turnips and carrots are weaker at 90c. to \$1.25 and \$1.50 to \$2 per bag, respectively.

Parsnips and beets have kept about stationary at \$2.50 to \$2.75 and \$2.25 to \$2.50 per bag, respectively—with light offerings.

Onions have been decidedly firm—choice domestic lines selling at 8c. to 9c. per lb., while some extra fine stock from California brought \$11.50 to \$12 per 112-lb. bag.

**Montreal.**

Horses.—There is actually said to be a shortage of horses. It is a long time since such a situation was reported before. No doubt the need for additional animals to make up for the disadvantages of poor roads is in large part accountable for the better demand. No change is reported in price, however. Heavy draft horses, weighing from 1,500 to 1,600 lbs. are reported selling at \$250 to \$300 each; light draft, 1,400 to 1,500 lbs., \$200 to \$250; light horses, \$125 to \$175 each; culls, \$75 to \$100 and good saddle and carriage animals, \$175 to \$250 each. Dressed Hogs.—The tone of the market for dressed hogs was quite firm and prices were practically higher. City-abattoir-killed hogs sold at 28½c. per lb., while light country-dressed hogs sold at 26½c. per lb.

Poultry.—The market for poultry was quiet. Very little fresh-killed or live stock is arriving and trading was mostly in cold-storage stock, with turkeys selling at 53c. to 54c. per lb., and 38c. to 40c. for chickens.

Potatoes.—The offerings of potatoes included some better quality than was recently available. Prices were firm but practically unchanged, though some of the retailers were asking as high as 75c. for 12 lbs. Car lots of Quebec white stock were quoted at \$3.85 to \$3.90 per bag of 90-lbs., ex-track.

Maple Products.—Maple sugar has been selling at as high as 30c. per lb. though it is not thought that this price will long be available. Maple syrup has been selling at \$2.75 to \$3 per gallon tin. Supplies were not particularly large though it is said that an enormous quantity was on the farmers' market and that the make is fairly large.

Eggs.—The market for eggs has been on the easy side yet there has been no sharp decline and none is looked for although it is expected that lower prices will develop during the first half of this month. Quotations are now 51c. to 55c. per doz., according to quantity.

Butter.—Supplies of creamery in cold store are fairly large and as the new make creamery is not far off there is some

hesitation regarding prices, some holders are asking 63c. for finest grass creamery while others are said to be prepared to sell at 60c. and even less, with under-grades available at 57c.

Cheese.—The market was steady. Small cheese were quoted at 27½c. to 28c. per lb. for local account, and large at ½c. less.

Grain.—No. 2 Canadian Western oats were quoted at \$1.05½, No. 3 being \$1.01; No. 2 feed, 99c.; tough No. 2, \$1.01½; tough, No. 3, \$1.01; and tough, No. 1 feed, 99c. per bushel, ex-track.

Flour.—Prices were steady and demand fair. Manitoba spring wheat flour was \$13.25 per bbl., in jute, ex-track, in carload lots, less 10c. per bbl. for spot cash. Ontario winter wheat flour, in broken lots, \$11.30 to \$11.40, in new cotton bags, and \$11 in second-hand jute bags, ex-store. White corn flour, \$10.50, in small lots.

Millfeed.—The market was firm and steady, \$50 for bran, per ton, in broken lots, and \$58 for shorts, when taken with flour and about \$4 more straight.

Baled Hay.—Sales of baled hay were taking place at \$30 to \$31 per ton for No. 2 timothy, \$28 to \$29 for No. 3, and \$26 to \$27 for clover mixed, ex-track.

Hayseed.—Timothy seed, 17½c. to 20c. per lb.; 65c. to 67c. for clover and alsike; 40c. to 45c. for sweet clover; 58c. to 60c. for alfalfa, track, Montreal.

Hides.—Prices were steady at 28c. per for steer and cow hides; 22c. for bulls; 65c. to 67c. per lb. for calf skins; kips 25c. Sheep skins, \$4.25 each; horses, \$10.

**Buffalo.**

Cattle.—Cattle trade was rather uneven and erratic at Buffalo last week. To start with, good weight steers have been showing gradual and continued weakness as western markets for the past several weeks and eastern killers would only take hold on the local market at prices that compared favorably with the west. Some few sales of shipping steers sold possibly steady, but most of the offerings in this line ruled by 25c. to 40 cents. Market was also weak on the general run of butchering grades. It was the last week of Lent, during which beef consumption is very much restricted and in addition, Government frozen beef has been on the market and while not cutting a large figure, nevertheless had its effect and in consequence local killers who are the main support on these grades, took hold slowly and at prices that were a full 15c. to 25c. under the preceding week. Best steers sold up to \$14.25, with best Canadians \$12 to \$12.50. Stocker and feeder trade ruled dull, heavy bulls sold a quarter to a half lower, handy kinds 15c. to 25c. lower, while with milk prices declining dairy cows generally found hesitating sale at a full \$10 to \$15 per head decline. Offerings for the week totaled 5,650 head, as against 4,750 for the previous week and as compared with 5,700 head for the corresponding week a year ago. Quotations:

Shipping Steers — Canadians — Best heavy, \$12 to \$12.25; fair to good, \$11 to \$11.50; medium weight, \$10.75 to \$11; common and plain, \$10 to \$10.50.

Butchering Steers.—Yearlings, fair to prime, \$12.50 to \$14.25; choice heavy, \$12.50 to \$13; best handy, \$12.50 to \$13; fair to good, \$11 to \$11.50; light and common, \$9 to \$10.

Cows and Heifers.—Heavy heifers, \$11 to \$12.50; best heifers, \$10.50 to \$11; good butcher heifers, \$9.50 to \$10; fair butchering heifers, \$8 to \$9; light, common, \$6 to \$7; very fancy fat cows, \$10.50 to \$11; best heavy fat cows, \$9.50 to \$10; medium to good, \$8 to \$9; cutters, \$5.50 to \$6; canners, good, \$4.50 to \$5.25.

Bulls.—Best heavy, \$9.75 to \$10.25; good, butchering, \$8.50 to \$9; sausage, \$8 to \$8.50; light bulls, \$7 to \$8. Stockers and Feeders.—Best feeders, \$9.50 to \$10; common to fair, \$8 to \$9; best stockers, \$8 to \$8.50; fair to good, \$7.75 to \$8.25; common, \$6 to \$7.

Hogs.—Prices were higher the first half of last week and the next two days the market was erratic. Monday hogs weighing better than 250 pounds sold from \$15 to \$15.75, some on the heavy mixed order ranged from \$15.75 to \$16.25, desirable mixed grades sold largely at \$16.40 with bulk of the good yorkers \$16.50 and general price for pigs was \$16.

Thursday the top was \$16.60, with bulk of the light hogs selling at \$16.50 and pigs \$15.25 to \$15.75, and Friday mediums and heavies ranged from \$16 to \$16.50, desirable mixed grades moved at \$16.75

and \$16.85, with yorkers selling up to \$17, and pigs landed at \$16. Receipts for the week were 25,500 head, being against 27,431 head for the week before and 22,800 head for the same week a year ago.

Sheep and Lambs.—Market was quite active all of last week. Monday best wool lambs sold at \$20.50, with clips \$16.75 down and trade the next few days was higher. Tuesday's top was \$20.75, Wednesday the best brought \$21, and Thursday and Friday top wool lambs made \$21.50, with clips selling from \$18 to \$18.75. Cull lambs that carried wool ranged from \$19.50 down. Sheep were scarce and firm all week. Wool wethers reached \$16.50, clipped wethers made \$14 and unshorn ewes ranged from \$14.50 down. For the past week receipts were 21,300 head, as compared with 17,793 head for the week before and 15,500 head for the same week a year ago.

Calves.—Prices were given a hard jolt the fore part of last week, but before the week was out part of the decline was regained. Monday tops sold at \$20.50, and the next three days buyers got the best from \$19 to \$19.50. Friday prices were up \$1.50, bulk selling at \$21. Cull grades were little changed all week, selling largely from \$16 down. Receipts for the week were 8,100 head, the week before there were 7,619 head and for the same week a year ago the run totalled 5,250 head.

**Chicago.**

Cattle.—Compared with a week ago, market mostly steady. Fat steers, \$14.25 beef steers and fat she stock, 25c. to 50c. higher; yearlings, 50c. to 75c. up; canners irregular, mostly steady; feeders and calves dull.

Sheep.—Compared with a week ago, market steady. Eighty to 82 pound shorn lambs, \$17.25 to \$17.50; woolled stock unchanged.

Hogs.—Market for light grades steady to 10c. higher. Other grades steady to 25c. lower. Bulk, \$15 to \$16; top, \$16.30; heavy, \$14.50 to \$15.65; medium, \$15.25 to \$16.15; light, \$15.75 to \$16.15; light lights, \$15.15 to \$15.85; heavy packing sows, smooth, \$13.25 to \$14; packing sows, rough, \$12.75 to \$13.25; pigs, \$13.50 to \$15.25.

**Sale Dates.**

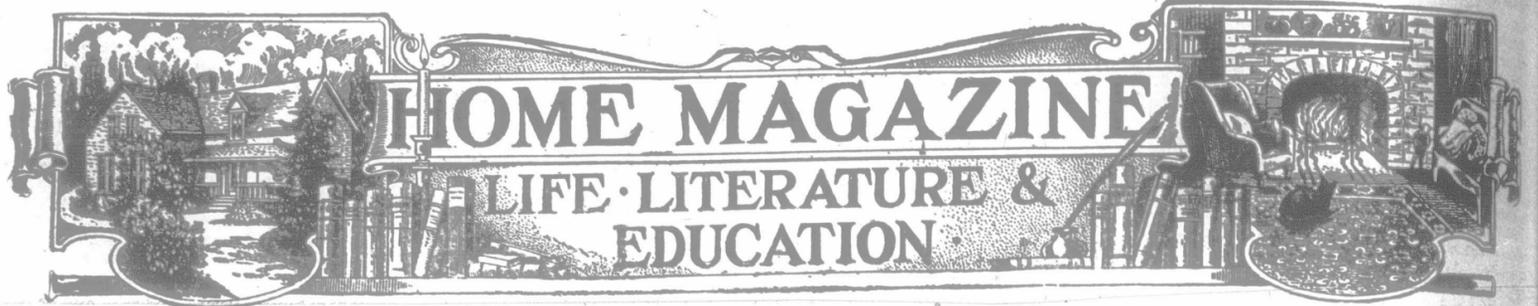
April 9, 1920.—Carmichael Bros., R. 3, Ilderton, Ont.—Dairy cows and steers.  
April 13, 1920.—Geo. Crawford, Oro Station, Ont.—Shorthorns.  
April 16, 1920.—Geo. W. Bethune, Ryckman's Corners, Ont.—Holsteins.  
April 20, 1920.—Aberdeen-Angus cattle Albany, New York.  
May 12, 1920.—Elgin Pure-Bred Holstein Sale, St. Thomas, Ont.  
May 20, 1920.—Ayrshire-Cattle Breeders' Association of New England, consignment sale, Springfield, Mass.  
June 2, 1920.—Can. Aberdeen-Angus Association, Exhibition Grounds, Toronto, Ontario.  
June 3, 1920.—Hood Farm, Inc. Lowell, Mass.—Jerseys.  
June 9, 1920.—International Sale of Milking Shorthorns, Euclid, Minn., U. S. A., R. R. Wheaton, Thorndale, Ont.  
June 10, 1920.—Second National Ayrshire Sale, Chicago, Ill.  
June 15, 16, 17 and 18.—Live-Stock Breeders' Association of the District of Beauharnois, Limited, Ormstown, Que.

The Wise Doc.—A member of a national medical association tells the following story at the expense of a physician: "Are you sure," an anxious patient once asked—"are you sure that I shall recover? I have heard that doctors have sometimes given wrong diagnoses and treated a patient for pneumonia who afterward died of typhoid fever."

"You have been woefully misinformed," replied the physician indignantly. "If I treat a man for pneumonia, he dies of pneumonia."

Farmer (bursting into the village inn): "What d'ye think, Silas? The bones of a prehistoric man have been found on Jim White's farm!"

Innkeeper: "I hope poor Jim 'll be able to clear himself at the coroner's inquest."



### The Footfarer.

Now that spring is in the land,  
Now that April wakes the world,  
I would take my scrip in hand,  
Roving with old Solitude.

I would leave the haunts of men,  
All the rabble of the mart;  
I would be a child again,  
Close upon my mother's heart.

Being kin to every star  
In the marvelous spring nights,  
I would journey forth afar,  
Drinking in long-lost delights.

For the world was made for me,  
I who love her music so;  
I was meant for Arcady,  
Where the April tides sing low.

I would lie upon the breast  
Of my mother all day long,  
She who eases my unrest  
With her musical low song:—

She it is who calls me forth  
When the springtide wind begins,  
That in faring south or north,  
I can cease to think of sin;

Yea, and even when the rain  
Of sweet April falls on me,  
I can hear a loved refrain  
In the welcome minstrelsy;

Glad because I am without,  
Following my vagrant will,  
Putting all my cares to rout  
When I feel the first new thrill.

Mother, I would forth with you,  
I would take your outstretched hand;  
Let us fare amid the dew,  
Now that spring is in the land.  
—From "The Quiet Singer," by Charles  
Hanson Towne.

### Making Old Things New and Ugly Things Beautiful.

A GROUP of people were talking a few evenings ago, about taste in furnishing, and one of the party brought up the question as to what one can do if one is already loaded down with a variety of things, badly chosen and indifferent in quality. "It is too expensive," she said, "to get rid of them all at second-hand prices and get new ones at present prices."

Her observation was very sensible, and touched the real reason why so many people who really have better taste are surrounded by ugly things.

But—  
—Well there is no need to be hopeless and just "let things go," even if one is so hampered.

Perhaps the first thing to consider is that a great many of these offensive things (in some houses, at least) can really be "done without." It is necessary to remember, *always*, that clutter suggests disorder, and that crowdedness is never beauty. "If people could only be persuaded how much better is airy emptiness than space filled with tawdry bric-a-brac and unnecessary furniture," said a famous decorator, "many of our rooms would present a more cultured appearance." Why not, then, look over the collection, see it with discriminating eye, and decide to be heroic and get rid of a lot of it?

Perhaps, in the disgust of the first examination, one may feel, helplessly, that *all must go*, and think, with a grim smile, of a certain "joke" that applies to the situation—

"All things go." There should be a national holiday called "All Things Go Day," when

every house, barn, shed, garage, etc., should be relieved of all its junk.

"That's right, old man, but do you realize how little there would be left of many a happy home?"

In looking over the hopeless mass one may feel, indeed, that "all" should be "doomed." But really that does not at all follow. Much may be salvaged, and when one sets to work one may find a real pleasure in working out just what can be done with various ugly things to make them, if not positively beautiful, at least attractive and in harmony with the color scheme. . . . This cheap, ugly bedroom set, for instance, if given two coats of white paint and a top one of cream enamel, will be lovely for the white and yellow guest room one has wished for. Can't you see it?—The walls covered with inexpensive but pretty cream paper sprigged with yellow and topped by a cream drop ceiling, the floor painted brown, with a brown or olive green rag rug before the dresser and another before the bed; white dotted muslin curtains, sash length, at the windows; a white dimity spread on the bed with a comforter covered with cheesecloth, dyed yellow and tied with yellow yarn, placed at the foot; yellow flowered washstand china; and a low rocker, painted cream, with a little white and yellow chintz cushion on the seat. Don't you think the room lovely already?—And perfectly charming with the addition of a fern in a pot, a dotted muslin cover on the dresser, and two or three sepia prints, framed in narrow brown frames, on the walls?

"All very well for a bed-room," you say, "But there is such a hodge-podge of furniture downstairs!"

Well, why not shuffle it about? Here, for instance, are some light imitation oak chairs, some dark mission, some up-

pumice to soften the high gloss) is about the easiest to apply, and a dark walnut shade very good, but if you wish something more daring you may even use a black paint, with a coat of glossy black enamel on top. Black wood work, you know, is quite good with some of the flowered chintzes (with or without some black in them) if you have set your heart upon chintz. There are also some brownish-gray paints that are quite good for chairs, etc., if that color chances to fit into the color-scheme. . . . Then, the ugly upholstery?—Why not, if the covering is very ugly either dye it or replace it with something prettier?—plain rep, or heavy dark cretonne or tapestry, or good shadow chintz. And be sure you take off all the fringe and tassels and replace them with a plain furniture braid put on with round-topped black furniture tacks. . . . The light rattan chairs should certainly be stained to match the rest of the furniture, and there will be no objection at all to leaving them in the same room with the upholstered pieces.

Next turn to the rugs and portières: They are ugly and crude in color, the rug, perhaps, green, and the portières fawn or red. Why not do without the portières altogether?—They are not really needed, as a rule, and are seldom a positive note of beauty in a room. If, however, they *must* be used, then dye them—always keeping your color-scheme in mind. And, if the rug is very glaring, and ugly, have it dyed, also, or, if it is old and threadbare, send it to a place where it will be torn to shreds and made into two or three of the pretty, small, "hit-or-miss" rugs that are often so much prettier than the original carpet. Stain or paint the floor to a shade of brown and put the small rugs on it. A floor does not need to be covered nowadays; indeed, some of the very prettiest rooms have

and say if you are not satisfied: Remember that it is safe to keep away from pattern, you have covered the walls with buff or sand-colored alabastine, or "cut-meal" or "ingrain" wall paper, or "cotton" or "dotted" wall paper, or "dropped" two or three feet on the wall if the wall is very high. Your rugs, over the plain dark brown floor (may be a light floor, if you are very much afraid of marks showing) have no pattern, yet are pretty, and clean, and pleasing. The portières are "butternut" brown. The lace curtains (which could not be discarded because they were too "good") have also been dyed to a butternut shade, and hang, unstarched, just to sash-length; they are drawn well over the wall, and the cut-off portion has been made into a lambrequin which runs all across the top between the side curtains. The curtains next the glass are of cream fishnet, or scrim, or cheesecloth dyed to a deep cream with yellow ochre. The wooden and rattan chairs have been painted walnut brown, as also, the bookcase; the upholstered ones have been covered with a figured chintz in which brown is combined with old rose and olive green, and the tones of yellow, all softly mingled rather than standing out sharply. There is a brown crash runner, with a monogram embroidered in old rose or dull yellows and browns, on the table, and a little yellow crock filled with yellow tulips. The big, old jardinière that holds the fern at a window has been painted coppery brown or dark green. . . . This room is only one suggestion. Perhaps you have chosen a green and sand scheme, and the walls are sand, the portières, curtains and rugs and upholstery sage green, etc.; or you may have liked the blue note, and have made the walls honey-color, the hangings and upholstery Deft blue.—The one is as attractive as the other, provided that you keep in mind the rule given so often: "Have no more than two colors in large quantities, in any room, with small portions of a third color, if necessary, to give a touch of brightness and character."

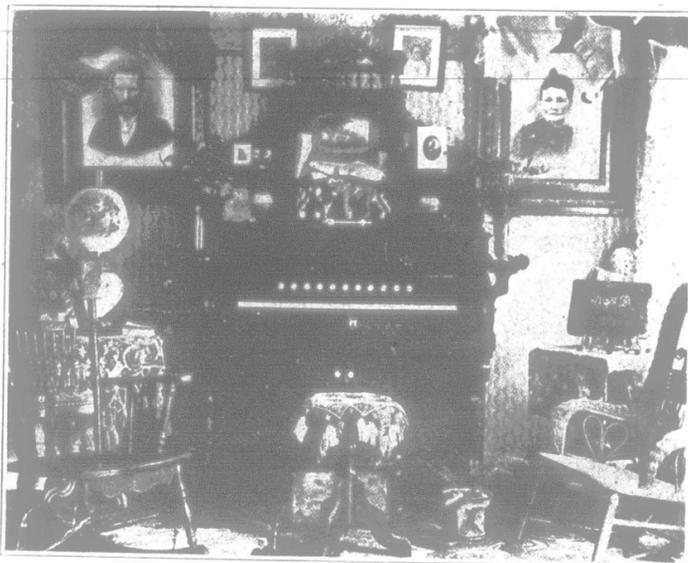
#### The Heroic Act of Discarding.

We have salvaged the carpets, furniture, (most of it), portières, curtains, and some of the ornaments.

But there is a mass of stuff left. See!—Lambrequins, white vases with red flowers, big crayon portraits, gaudily colored chromos, cheap gilt frames, a huge lamp with gaudy flowers, photos on little easels, a leather or wax "wreath," many and variously colored cushions, mottoes worked in wool (a generation old), a painted velvet panel (twenty years old),—heaps of other things. What is one to do with them?

Right here: If you want to make a beautiful house arise, like the phoenix of old, from the ashes of its predecessors, you will almost *have to* reduce a lot of this stuff to ashes—not by a literal bonfire, of course, but to the ashes of oblivion so far as your house is concerned. Perhaps you can give some of it away to some person who has nothing at all—not even good taste—and may really enjoy what you are anxious to discard; perhaps you can sell some of it at a second-hand store; if there is anything left over you will do well to burn it, or give it to the children for their playhouse. . . . Sometimes, of course, there are things, ugly in themselves but hallowed because of some memory or sentiment connected with them. These one cannot touch with ruthless hand, but it is always possible to give them a place in the privacy of one's own chamber, where they can be regarded as sacredly as one chooses, without being submitted to the scrutiny of uncarving eyes.

But in regard to the things that are both useless and ugly, and that have been kept on and on because one did not well know what else to do with them, it is necessary to take drastic measures. Usually the first step in making a house



The Mid-Victorian Parlor.  
An excellent spot to weed out.

holstered pieces, and some cream rattan or wicker. Granted, the conglomeration does look hopeless,—but *keep your color scheme in mind* and think well.

Perhaps there is a den, a library, or little living-room that is much used, in the house. Why not put all of the mission pieces in one of these rooms, where they will suit?—That will leave the imitation light oak chairs, the upholstered pieces and the light rattan. Would it not be possible to relegate some of the light oak chairs to the dining-room and stain the rest to an unobtrusive dark color that will fit in upon your color scheme? A warm stain, troubled with oil and

bare floors, which are not so very difficult to keep shining if one has a dustless mop.

The ugly, big-patterned, gaudily-colored carpet and portières have now been made inconspicuous, if not positive notes in the color-scheme—for you have followed the rule that *always* works well, viz., "make all ugly things that cannot be replaced or removed, as *unobtrusive as possible*." And you have found out that a dark dye, of good, pleasing color, can obliterate a multitude of sins, huge figure and ugly, expressionless "flowers". So now take a look at your living-room, as finished,

beautiful one will see the e in regard and is it should be at all. S vases (cr brown cr flowers). mat rags rugs are paint the cream, or whichever Perry or (cents up). into a "se like to bu with plain match yo hand-pain the feathe want to u (glass-cov When y and ugly, useful but paint and your room you have then you you did could do v After all, transform beauty,— to buy be money.

#### Impr

BY  
"T is very had saw it I statement painted a against th shrub close lines. Its it was con stood on a Down s a summer three bed-summer k permanent rooms for All the red ferent kind colors and the paint forlorn lo We set house wa to town, I paint an very simp pleased t paper w thorough wood wor first coat bed-room a deep o down stai in a soft narrow ordinary ceilings. ments, of round eac stain. T stained. Simple looked w it made pictures i Doing all for mater lars, and have just sum. There kitchen, the yard further in ever, we of the lit wide, w where in son raml one side and hon bushes. from the of which border, coming t

beautiful is in just such elimination, and one will be glad afterwards when one sees the effect. The question to be asked in regard to each article is: "Is it useful and is it beautiful?" A useless thing should be supremely beautiful to be kept at all. So get rid of the cheap, flowered vases (a blue and white bowl or a little brown crock will be much better for flowers). And tear the lambrequin into mat rags (braided or hit-or-miss hooked rugs are quite "good" anywhere). And paint the cheap gilt frames brown, or cream, or gray, or "weathered" oak—whichever best suits the color-scheme. And replace the colored chromos by good Perry or Copley prints (that cost from 5 cents up). And put the feather wreath into a "sentimental box"—if you don't like to burn it. And re-cover the cushions with plain crash or denim, or chintz to match your upholstery. And put the hand-painted panel tenderly away with the feather wreath, unless, haply, you want to use it for the bottom of a tray (glass-covered); it will be lovely for that.

When you have discarded the *useless and ugly*, when you have reduced the *useful but ugly* to unobtrusiveness by quiet paint and dye, when you have built up your rooms to form the perfect picture you have formed in your mind's eye, then you will be glad, and wonder why you did not long before see what you could do with the materials at your hand. After all, it is no small achievement to transform ugly things into things of beauty,—especially in these days when to buy beautiful new ones costs so much money.

### Improving a Small Farm Home.

BY "A COUNTRY WOMAN."

"It is a good farm but the house is very poor," was the description I had of our home-to-be, and when I saw it I quite agreed with the latter statement. It was a small, box-like, unpainted affair which stood out bleakly against the winter sky without a tree or shrub close enough to break its severe outlines. Its redeeming features were that it was comparatively new and sound and stood on a good foundation.

Down stairs there were two rooms and a summer kitchen and upstairs there were three bed-rooms. We decided that the summer kitchen could be made into a permanent one, leaving the other two rooms for living-room and dining-room. All the rooms were very dirty and painted either red or blue. Each one had a different kind of paper, but all were in bright colors and with no regard for the color of the paint. Altogether it was a very forlorn looking little place.

We set up a coal heater and while the house was warming up we made a trip to town, bringing back a supply of paper, paint and muresco. We decided on a very simple color-scheme, and the effect pleased us very much. After the old paper was removed and the house thoroughly cleaned we painted all the wood work white, using a light buff as a first coat. Then we murescoted the three bed-rooms, both walls and ceiling, using a deep cream color. The two rooms down stairs and the little hall we papered in a soft grey-green, finishing with a narrow oak moulding. We used the ordinary white ceiling paper for the ceilings. Keeping in mind the measurements of our rugs we painted a border round each floor and finished it with oak stain. The stairs were also painted and stained.

Simple white curtains on brass rods looked well with the soft green wall and it made a good background for our pictures in their narrow, dull gold frames. Doing all the work ourselves the outlay for material was less than twenty dollars, and we felt that the result would have justified the expenditure of a larger sum.

There still remained, of course, the kitchen, the outside of the house, and the yard, but the spring work stopped further improvements for a time. However, we kept steadily in mind a picture of the little house freshly painted, with a wide, white-pillared porch in front, where in imagination I could see a crimson Rambler and a white Clematis. At one side we planned to have white lilacs and honeysuckle, and at the other rose bushes. The lawn was to be divided from the garden by a lattice fence in front of which we would have a gay flowered border. Gradually the dreams are coming true.

### Your Health.

"MEDICUS."  
Alcohol.

In a recent article we pointed out that alcohol was a depressant to the heart and circulation and to the nervous system. If the dose is large enough it is actually dangerous to the circulation in serious diseases like pneumonia.

Its depressing effect on the nervous system sometimes has its advantages. For the boys in the trenches who had to go "over the top" the rum rations took away any fear they had. They were willing to undertake unnecessary risks, to undertake jobs that required extra courage. Why? Because the rum had depressed their nervous system. On the other hand their judgment was not as good as it would have been had they not taken the rum. So in diseases it perhaps has an important role to play in helping us to face a serious illness with a more equable state of mind. Its depressing effect is well known to the unfortunate who cannot sleep. A hot drink at night after a day of stress and strain may be the beginning of the alcoholic habit.

Insurance companies have learned to their sorrow that even the moderate drinker is not a good risk. They have accepted many such men as insurable, but the mortality among the moderate drinkers, whose health at the time of the examination was satisfactory, is from 25% to 75% greater than among the class of total abstainers.

So much for the disadvantage of alcohol. It has its advantage. It is a food that is rapidly absorbed from the stomach. As stated in a previous article, it is most important that feverish patients should be fed more than these same people take when they are well. If your patient is not receiving enough food he will rapidly develop acidosis (a future article will deal more in detail with acidosis). Acidosis is often the cause of death. If the patient refuses food, if the patient vomits, then alcohol may save his life. In that way can we explain the extensive use of whiskey by the doctors 20 or 30 years ago. In those days it was "feed a cold but starve a fever." The patients were underfed and developed acidosis, and whiskey will relieve the acidosis. (Sugars and starches will also relieve acidosis). So the patient was between two difficulties. If he didn't take the whiskey he had to fight the acidosis; if he took the whiskey he had to run the

risk of it killing him by depressing his heart. So often he got well *in spite* of the treatment.

Whiskey, then, should not be given in any fever, if you give your patient sufficient food. If your patient is feverish and is not taking sufficient food, whiskey may be of service.

In the next series of articles we plan to discuss the function of the different foods, e.g., carbohydrates, fats and proteins, then apply these facts to the practical problems of infant feeding, nutritional clinics, prenatal care, etc. Some recent work at the Mayo Clinic on the cause and cure of cancer by diet alone, may be of sufficient interest to discuss. Finally the climax of these articles should be the discussion of the prevention of diseases.

### Hope's Quiet Hour.

#### Eyes Front!

Fulfil ye my joy . . . . in lowliness of mind each counting other better than himself; not looking each of you to his own things, but each of you also to the things of others. Have this mind in you, which was also in Christ Jesus.—Phil. II 3-5.—R. V.

St. Paul goes on to speak of the mind of Christ, which the converts in Philippi are told to reproduce in themselves. He says that He was originally in the form of God, but emptied Himself and took the form of a servant (a bond-servant, or slave) and humbled Himself so that he became obedient unto the horrible death of crucifixion. From highest heaven to the dreadful agony and shame! From Almighty power to the helplessness of nailed hands and feet! This is indeed a revelation of the marvellous love of our Master. Is there any sign in us of the same mind?

Last week I spent an evening with the Dickens' Fellowship Society of Toronto. A scene was acted from "Great Expectations" which impressed me very much. There was Miss Havisham, old and grey in her yellow bridal white! She tottered feebly about her candle-lit room, pointing with a bony finger to the table, and explaining to her terrified boyish visitor that a bride-cake was there. It was covered with cobwebs, dust and mould, and was

being gnawed by the sharp teeth of mice; but—Miss Havisham declared—her own heart was tortured by sharper teeth than teeth of mice.

Dickens has vividly pictured the horror of a self-centred existence, carried to an extreme. - Because the bride was basely deserted on her wedding day, she recklessly threw away the rest of her life. She refused to go out, stopped the clocks in the house, remained dressed in her white satin and lace, and kept the mouldering remains of the wedding-feast on the dining-table until she died in old age.

It is a terrible picture of a life wasted in degrading self-pity. Of course, it is a caricature, but it has a great purpose. It is a warning to us all that a selfish life is horrible decay. Dickens does not leave us in doubt about his opinion. He says: "In shutting out the light of day, she had shut out infinitely more; in seclusion, she had secluded herself from a thousand natural and healing influences; her mind, brooding solitary, had grown diseased, as all minds do and must and will that reverse the appointed order of their Maker. . . . The vanity of sorrow had become a master mania, like the vanity of penitence, the vanity of remorse, the vanity of unworthiness, and other monstrous vanities that have been curses in this world."

She did not go forward, in soldierly courage, with eyes front. Rather were her eyes sunken, turned on herself in the frantic luxury of self-pity. She trained a beautiful young girl with the express purpose of having her break the hearts of men. That was her way of "getting even" with the man who had treated her so cruelly. She tried to overcome evil with worse evil—and two wrongs never yet made a right.

Think of the mind of Christ Jesus! He turned from His own cross to shower the blessing of forgiveness on those who drove the nails through His hands and feet. The women, who wept in sympathy with His pain, were sadly told to weep for themselves and their doomed nation. He was too full of loving pity for them to have room for self-pity.

St. Paul says that each of us is a member of Christ's body. Let us learn from our own bodies the lesson of living for others. The eyes give guidance to the whole body, the feet carry it, the hands work for it. Every cell is working for the good of the whole body, every drop of blood is "doing its bit" unwearyingly.



A Living-room in Perfect Taste.



## What Food Costs— About 60c a Day for a Man

It costs about 60 cents a day to feed a man. To feed a family of five, on the average, costs about \$610 yearly. The average workingman spends about 43 per cent of his earnings on food. Food costs have soared about 90 per cent in four years.

### Must have 12,000 calories daily

A family of five, including three young folks, needs some 12,000 calories daily. The average family does not get that, and is underfed. Those 12,000 calories in some foods cost many times as much as in others. So this food question is enormously important.

### Save 85 per cent on breakfasts

Quaker Oats supplies the supreme breakfast. It is rich in calories of energy—1810 per pound. It is rich in minerals, rich in protein. It forms almost the ideal food in balance and completeness. Yet it costs one cent a large dish. It costs 6 cents per 1,000 calories. It costs one-ninth what meats, eggs and fish cost, on the average, for the same calory nutrition. Note the comparisons with other necessary foods, based on prices at this writing. Mark what it saves on a breakfast for five, compared with other dishes.

#### Cost Per 1,000 Calories



Quaker Oats, 6c  
Per 1,000 Calories



Average Meat, 45c  
Per 1,000 Calories



Eggs, 70c  
Per 1,000 Calories



Average Fish, 50c  
Per 1,000 Calories

Breakfast Costs	
Dish of Quaker Oats . . . . .	1c
Two Eggs . . . . .	10c
Bacon and Eggs . . . . .	16c
One Chop . . . . .	12c
Serving of Fish . . . . .	8c

See how much you can save on breakfasts by serving Quaker Oats. Your folks will be better fed. The costlier foods, which are also needed, can be served at dinner, and the breakfast saving will help cut the cost. Proper nutrition and proper economy call on housewives to consider these things.

# Quaker Oats

World-Famed for Flavor

Millions of people the world over have been won to Quaker Oats. We flake them from queen grains only—just the rich, plump, flavory oats. We get but ten pounds from a bushel. This extra flavor means extra delight, and at no added cost.

Packed in Sealed Round Packages with Removable Cover

3376

The heart and lungs are unseen, and forgotten—as long as they are well—but they work 24 hours a day, 7 days a week, with no holidays, from birth till death. "I Serve" is their motto, as they purify the blood and send it flying on its helpful way. If any member of my body is working for itself alone, it must be diseased. Selfishness is disease.

I heard a clergyman say yesterday that selfishness is not only one of the worst sins, but "it is sin." Sin is self-will, he said. When our Lord described the Judgment Day (St. Matt. XXV 31-46) He declared that the great division of men would be made in this principle. Those in the right will be the people who have lived helpfully and self-forgetingly; those on the left will be the people who have seen others in need and passed by unheedingly.

This morning a friend of mine was talking about people who have "moods." She said: "One day I meet a certain person and she is smiling and friendly. The next day she may pass me by in cold silence, and I think I have in some way offended her."

It is not an easy thing to live with a person who is changeable as a weathercock—a self-centred person who is constantly getting offended or dropping into a fit of the blues. Such a person is not walking with eyes front, but rather keeping her eyes fixed on her own troubles of mind, body or spirit, and forgetting her neighbor's rights.

If we spend time and strength lamenting our misfortunes, we are really proclaiming our our incapacity. God gives us materials and we can use them to build a house of joy or a house of sorrow. Where there's a will there's a way. The Great Teacher has pointed out a way to the heights of blessedness from the valley of mourning; and the fiery furnace of persecution blossoms into joy when the Son of Man walks there with His chosen friends.

It is foolish as well as wrong to be depressed and discouraged. Success is a far greater thing than worldly prosperity. A man may be a prince in soul when he is poor—as David was when he was hunted by Saul like a partridge in the mountains. And he may grow discussed in spirit when easy prosperity lulls him into the dull sloth of selfishness.

When this stage of life is over we shall probably thank God for the hard times, at least as fervently as we thank Him for the easy and pleasant times.

If there is joy in heaven over each repentant sinner, just think of the joy there when the recording angel is writing down in God's Book of Life the story of one of earth's "blue Mondays." How many women have sent up their praises to God as they bent over the wash-tub or hung out the clothes in the sunshine! A woman told me yesterday that, when she is taking X-ray treatment for cancer, she spends the time in prayer. "Can you tell me any better way of occupying the time?" she asked. I certainly couldn't. Another woman, who goes out like Martha-by-the-day," told me to-day that she always prayed when going to her work.

Pessimists may groan over the wickedness of the times, but God is listening gladly to many silent prayers going up from millions of working people in working days.

The mind of Christ Jesus was to save the world. If the cross stood in the way that could not change His purpose. He was no ascetic. He did not choose pain for its own sake; but He would not allow pain to keep Him from His great purpose of seeking and saving lost sinners. A friend of mine lent me a book the other day. She had underlined many passages, and this one in particular was heavily underscored: "This is the Christian's job: to go out into a world that is not Christ's and turn it into a world which is His. . . . No time for dawdling, no leisure for excessive preoccupation with ourselves, we must hurry towards the battles that must be fought. No time for funk-holes, no possibility of escaping service."

We are at last roused to echo our Lord's prayer for His friends, that they may be "one", and we should help our prayers by fellowship of service—that means working with and for each other. Fostlick says that a traveller across America in springtime sees a great many fences—the signs of division. But in summer the fences are hidden by grain. So, if men and women work together for the common good—as they did during

the war—the fruits of their common labour will cover up many of the fences which look so ugly, and which divide them from others who love their Lord. In time of war disloyalty to our allies is disloyalty to our leader and weakening to our cause. Our Leader's faithful soldiers are our comrades. They are linked in living fellowship with us, being members with us of His Body, and we should gladly serve those who are "Friends, bretheren, sisters of Lord Jesus Christ."

DORA FARNCOMB.

### For the Sick and Needy.

The Q. H. P. was nearly empty a week ago, but kind friends have been pouring in gifts generously. One dollar came from Mrs. J. E. B., five dollars from Mrs. W. E. G., "Another friend," and Mrs. A. W. C., Ingersoll, Ont., sent two dollars each. There has been a lot of sickness this winter, and the kindness of our readers has brought help to many troubled people. I gratefully acknowledge also the papers sent for the shut-in.

DORA FARNCOMB.  
6 West Ave., Toronto.

## 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 a stamped envelope ready to be sent on. (4) Allow one month in this department for answers to questions to appear.

### Spring Housecleaning.

IN a well-regulated house, "housecleaning" is less a task than it used to be,—doing away with tacked down carpets and dusty feather beds has seen to that. Nevertheless spring housecleaning must be done. Wall-paper needs cleaning, woodwork needs an especial rub, winter clothes have to be packed away and summer ones put in their place, the attic needs a brushing up, and the cellar a thorough cleaning. If these things are not done there will be more or less confusion all summer.

Cleaning the cellar is the most important operation of all, but that job should be left until some bright balmy day when the windows can all be left open and everything left clean and sweet and dry before nightfall; to go at it sooner may only mean to invite prolonged dampness, even if one should escape the danger of taking cold, as one so often does, if not careful, when cleaning out the basement.

The rest of the house, however, may be done little by little about the last of the "furnace days," and it is always a good plan to begin at the top and work downwards. If one works from beneath upwards the lower rooms are continually in confusion, more or less, and the dust from above insists on filtering down into the cleaned rooms. Begin with the attic, then clean out the boxes, wrap things to be packed away in newspaper, put in some moth balls if you like, then close down so tightly that a moth cannot get in. Heavy coats and furs should be hung out in bright sunshine for 2 or 3 hours, then beaten lightly, brushed well and tied in stout bags which may be suspended in the attic. The furs may be put in heavy paper flour bags, fur and cloth coats in longer bags kept for the purpose, made of heavy fibre paper or glazed cotton. Tie the top so tightly that a moth cannot get in. It is a good plan to have a number of cotton bags made of old sheets in which winter dresses, etc., may be placed, on a hanger. Tie tightly about the top and suspend to a hook as usual. If you are very careful you will first stuff the sleeves with soft paper. Winter hats and shoes will also find a place in the attic. Tie the hats neatly in their boxes, so that not a speck of dust can enter. If you have not shoe-trees, stuff the shoes with paper until not a wrinkle is left; they will last longer for the precaution.

### Cleaning the Wall Paper.

Now that wall-paper is sold at a price that classes it among the luxuries, you may feel like making the old last another year; and may be glad to know that it can be greatly freshened. A cleansing paste is sold for the purposes; I believe you can get it at "Woolworth's." If

you wish  
1/2 lb. of  
flour.  
water and  
and 3 in  
cloth, be  
then ta  
cleaning  
windows  
no light  
with ga  
vessel c  
closed  
"fool wi  
are som  
soiled p  
quite so  
Besides  
them.  
in circle  
Spots  
covering  
water to  
Leave ut

To ma  
work lo  
over wit  
water to  
little soa  
time to  
dull glo  
Several  
sold at  
one may

Rav  
Oil  
Ben  
Am  
Alco

Shake be

White  
with wh  
water, t  
rubbing

Polish  
ly clean  
trace of  
have be  
should b  
with a p  
night, if  
brick or  
Clean  
and appl  
purpose  
better.  
varnish  
good ide  
once in  
afterwa  
Japan  
with wa  
few drop  
soap wil  
Carpe  
should b  
through  
the dust  
with the  
it as fol

Wat  
Soa  
Gas  
Tur  
Alco

The s  
mild so  
Go-over  
this usi  
keep the  
mixture  
it away  
If the  
be suffi  
to go ov  
warm w  
turpenti

D  
NOW  
N t  
in  
and in a  
—even  
the the  
the new  
is to be  
sick chil  
part tha  
you don  
is that  
liberty  
a brick  
to a pl

fruits of their common  
er up many of the fences  
ugly, and which divide  
ers who love their Lord,  
loyalty to our allies  
our leader and weakening  
Our Leader's faithful  
r comrades. They are  
fellowship with us, being  
us of His Body, and we  
rve those who are.  
theren, sisters of Lord

DORA FARNCOMB.

**Sick and Needy.**

was nearly empty a  
kind friends have been  
generously. One dollar  
E. B., five dollars from  
"Another friend," and  
Ingersoll, Ont., sent two  
there has been a lot of  
inter, and the kindness  
as brought help to many  
I gratefully acknowl-  
pers sent for the shut-in.

DORA FARNCOMB,  
6 West Ave., Toronto.

**Single Nook**

pendence in this and other  
kindly write on one side of  
always send name and address  
s. If pen name is also given  
not be published. (3) When  
be forwarded to anyone, please  
velope ready to be sent on  
nth in this department for  
to appear.

**Housecleaning.**

ated house, "houseclean-  
sk than it used to be,—  
h tacked down carpets  
r beds has seen to that.  
ing housecleaning must  
paper needs cleaning,  
an especial rub, winter  
be packed away and  
ut in their place, the  
shing up, and the collar  
ning. If these things  
ere will be more or less  
mer.

llar is the most import-  
all, but that job should  
bright balmy day when  
all be left open and  
an and sweet and dry  
to go at it sooner may  
ite prolonged dampness,  
ld escape the danger  
as one so often does,  
hen cleaning out the

house, however, may  
little about the last of  
ys," and it is always  
gin at the top and work  
ne works from beneath  
r rooms are continually  
e or less, and the dust  
on filtering down into  
ms. Begin with the  
a out the boxes, wrap  
ed away in newspaper,  
balls if you like, then  
tly that a moth cannot  
ats and furs should be  
t sunshine for 2 or 3  
n lightly, brushed well  
t bags which may be  
attic. The furs may  
paper flour bags, fur  
onger bags kept for the  
heavy fibre paper or  
ie the top so tightly  
ot get in. It is a good  
umber of cotton bags  
ets in which winter  
be placed, on a hanger,  
the top and suspend  
al. If you are very  
st stuff the sleeves with  
er hats and shoes will  
in the attic. Tie the  
eir boxes, so that not  
in enter. If you have  
f the shoes with paper  
kle is left; they will  
precaution.

Water ..... 2 qts.  
Soap Jelly ..... 1 oz.  
Gasoline ..... 2 oz.  
Turpentine ..... 1 oz.  
Alcohol ..... 2 oz.

The soap jelly may be made of any  
mid soap melted with a little water.  
Go-over the surface of the carpet with  
this using rags washed frequently to  
keep them clean. Put just a little of the  
mixture in the basin at a time, and throw  
it away when soiled.

If the rugs are not much soiled it will  
be sufficient, after beating and sweeping,  
to go over them with rags wrung out of  
warm water to which a little ammonia or  
turpentine have been added.

**Does This Concern You?**

**N**OW please read this paragraph  
through. If you live near London  
it may concern you especially  
and in a way that you are not expecting—  
—even though I tell you right here that  
the theme of what I am about to say is  
the new Hospital for Sick Children which  
is to be built in London very soon for the  
sick children of all Western Ontario. The  
part that may concern you in a way that  
you don't expect (if you live near London)  
is that the Ingle Nook is taking the  
liberty of suggesting to you that you put  
a brick or two in the Hospital by coming  
to a play that is to be put on in its

you wish to make your own mix together  
1/2 lb. powdered pumice and 3 lbs. rye  
flour. Make into a very stiff paste with  
water and shape into rolls 6 inches long  
and 3 inches across. Tie each in cheese-  
cloth, boil for an hour, let dry over night,  
then take off the muslin and use for  
cleaning the paper. If the doors and  
windows can all be left open and there is  
no light or fire near, a cloth dampened  
with gasoline may be used. Keep the  
vessel containing the gasoline tightly  
closed. Gasoline is too dangerous to  
"fool with." Dry bread, or bits of dough  
are sometimes used for brushing down  
soiled paper, and will help, but are not  
quite so effective as the cleansing pastes.  
Besides it looks like extravagance to use  
them. Always brush directly down, not  
in circles.

Spots on paper may be removed by  
covering them with pipe-clay mixed with  
water to the consistency of heavy cream.  
Leave until it dries then brush off.

**Freshening Furniture.**

To make furniture and stained wood-  
work look almost like new wipe it all  
over with a cloth wrung out of warm  
water to which has been added a very  
little soap and a tablespoonful of turpen-  
tine to the quart. Apply a little at a  
time and rub each portion, at once to a  
dull gloss with dry cloths or chamois.  
Several good furniture renovators are  
sold at any good hardware store. Or  
one may be made as follows:

- Raw linseed oil ..... 1 1/4 pts.
- Oil of turpentine ..... 5 oz.
- Benzine ..... 2 1/2 oz.
- Ammonia water ..... 2 1/2 oz.
- Alcohol ..... 2 oz.

Shake before using.

White woodwork may be cleaned  
with whiting and water. Dip a rag in  
water, then in the whiting, and apply,  
rubbing it off at once.

**Floors.**

Polished floors should first be thorough-  
ly cleaned with warm water to which a  
trace of soap and a little turpentine  
have been added. Afterwards they  
should be polished, when thoroughly dry,  
with a good floor wax. Let stand over  
night, if possible and rub with a padded  
brick or weighted brush.

Clean linoleum with warm soft water,  
and apply any of the mixtures sold for the  
purpose they make the linoleum wear  
better. Some even coat it with floor  
varnish to make it last longer. It is a  
good idea, at least, to rub linoleum over  
once in a while with boiled linseed oil,  
afterwards rubbing until it is dry.

Japanese matting should be cleaned  
with warm salty water to which a very  
few drops of ammonia have been added;  
soap will make it yellow.

Carpets and rugs, like the matting,  
should be taken out of doors and cleaned  
thoroughly. First beat and sweep all  
the dust from it, or clean it thoroughly  
with the vacuum cleaner, then brighten  
it as follows. Mix together,

- Water ..... 2 qts.
- Soap Jelly ..... 1 oz.
- Gasoline ..... 2 oz.
- Turpentine ..... 1 oz.
- Alcohol ..... 2 oz.

The soap jelly may be made of any  
mid soap melted with a little water.  
Go-over the surface of the carpet with  
this using rags washed frequently to  
keep them clean. Put just a little of the  
mixture in the basin at a time, and throw  
it away when soiled.

If the rugs are not much soiled it will  
be sufficient, after beating and sweeping,  
to go over them with rags wrung out of  
warm water to which a little ammonia or  
turpentine have been added.

**Does This Concern You?**

**N**OW please read this paragraph  
through. If you live near London  
it may concern you especially  
and in a way that you are not expecting—  
—even though I tell you right here that  
the theme of what I am about to say is  
the new Hospital for Sick Children which  
is to be built in London very soon for the  
sick children of all Western Ontario. The  
part that may concern you in a way that  
you don't expect (if you live near London)  
is that the Ingle Nook is taking the  
liberty of suggesting to you that you put  
a brick or two in the Hospital by coming  
to a play that is to be put on in its

**FIVE ROSES FLOUR**  
for Breads-Cakes  
Puddings-Pastries



**THRIVING children prefer  
the bread you make with  
Five Roses Flour. It is stored  
with the flavor, vitality and  
easily-digested nourishment  
of prime Manitoba wheat.**

*Nutritious :: Wholesome  
Keeps Well*

**Subscribers**—You can have SIX MONTHS' SUBSCRIPTION FREE, by securing  
the name of one NEW SUBSCRIBER, and sending his \$1.50 for one  
year's subscription to  
**The Farmer's Advocate and Home Magazine**

benefit on the nights of Friday and  
Saturday, April 16 and 17 (8.15 p.m.) and  
a matinee at 2.15 Saturday afternoon  
April 17. The play is a very good English  
one, "Liberty Hall," and it is to be  
presented at the Majestic Theatre, under  
the auspices of the Women's Press Club  
by an All-Star local cast. The prices  
are: Nights: Reserved Seats:—floor \$1.00;  
2 front rows in balcony \$1.00; to wide  
aisle in balcony 75 cents. . . Not Re-  
served:—back part of balcony and top  
gallery, 50 cents. . . Matinee:—floor,  
75 cents; 2 front rows in balcony, 75  
cents; to wide aisle in balcony, 50 cents. .  
Not Reserved:—back part of balcony  
and top gallery, 25 cents. . . Those of you  
who wish to come and have no friends  
in the city to do the business for you may  
send your order to me (Junia) if you  
desire reserved seats for any time on  
Saturday, April 17. To avoid confusion  
I cannot promise to reserve any seats for  
Friday night. Be sure, if you write to me,  
to state whether you want seats reserved for  
afternoon or evening. I will get the best  
seats I can for the money and leave your  
tickets at the box office, to get as you go  
in to the theatre. But be sure to send  
your order as soon as possible; if it  
reaches me later than April 12 I may not

**Crown Brand  
Syrup**



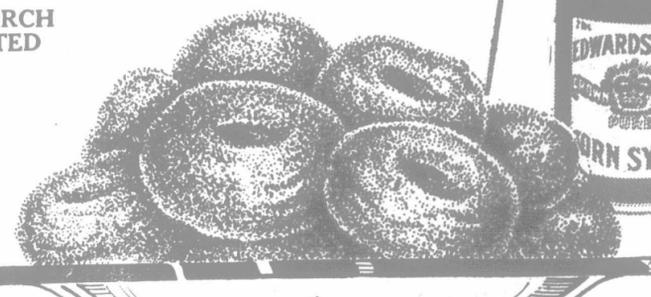
*"How I add digestion  
to doughnuts"*

**DOUGHNUTS** were just doughnuts—until  
I discovered "The Great Sweetener."  
They eat so easy, these fried cakes, they digest  
so well that I want all ambitious housewives  
to enjoy my recipe. That one cupful of  
"CROWN BRAND" Syrup works wonders  
—it mellows the whole recipe. I am proving every day  
to an admiring household that "CROWN BRAND"  
Syrup is, in truth, "The Great  
Sweetener." Then, each spoon-  
ful adds digestibility, because  
"CROWN BRAND" Syrup is  
practically predigested. And digesti-  
bility in doughnuts is everything!  
In these days of the high cost of bak-  
ing, "CROWN BRAND" Syrup is so  
reasonably priced. Don't admit to  
anyone that YOU haven't tried it!

*Aunt Mary*

**THE CANADA STARCH  
COMPANY LIMITED  
MONTREAL**

**At your  
Grocer's in  
2, 5 and  
10 lb. tins**

**Wall Paper.**

paper is sold at a price  
ong the luxuries, you  
ng the old last another  
glad to know that it  
eshened. A cleansing  
he purposes; I believe  
t "Woolworth's." If



Westclox Big Ben—just tell him when

**M**AYBE you swear at him some mornings when you'd give anything in the world for forty winks more!

But, after all, you swear by him because he's only carrying out your own orders and calling you exactly when you say.

And isn't that what you want? A clock that takes time seriously; that lets you sleep right up to the last tick; and then keeps good time all day.

Right there's the reason why Westclox alarms have so many friends: they run and ring on time. Why shouldn't they? Every Westclox has that same good construction that got Big Ben up in the world.

Western Clock Co.—makers of Westclox  
La Salle and Peru, Ill., U. S. A.

be able to get any seats at all. By the way, why not get up a theatre party? They promise to be popular in connection with this play.

To return: The Sick Children's Hospital really should interest everyone in Western Ontario. At present children in that district who require special treatment have to go to Toronto, often a long journey and very much "out of the way" from home. If any of you who read this wish to contribute a small sum towards building the institution, but live too far away to take advantage of the play offer, you may send your donation to Mrs. F. J. Greenaway, Gen Sec. I. O. D. E. 352 King St., London, Ont. All money sent to her will find the right channel and will be very thankfully received.

**Furnishing Inexpensively.**  
To "The Farmer's Advocate".

I want to fit my parlor up as a living-room with as little expense as possible. I do not know just how a living-room should be furnished so have come to you for advice. I have a dark green rug on the floor, pale green paper on the wall and an old-fashioned parlor suit. How could I use that furniture in a living-room? Would cretonne curtains over the lace ones look good?

Grenville Co., Ont. A Subscriber.  
Perhaps you may find a few hints in today's articles of our Home Department. If your pale green paper has no pattern, or very little pattern, you might

cover it with two coats of sand-colored murexco. If, after trying a bit, you find the pattern comes through, it may be necessary to remove the paper, cover the wall with manilla paper, and then give one coat of murexco. That will not cost very much money, and will make a greater difference than you can imagine in giving your room an artistic appearance. At present there seems to be too much green; the sand-colored paper would give just the right contrast to your green rug. The old-fashioned parlor suite will do splendidly in a living-room; some of the very old furniture is prettier and better made than any you can buy nowadays. Yes cretonne curtains at the sides with a narrow valance along the top would be very nice over the lace ones. Have one or two cushions of the same material, and tint your lace curtains cream with a little yellow ochre in the rinsing water.

**Javelle Water.**

For "U. E. O.", Duffin Co., Ont.  
Javelle Water, for removing stains and bleaching white goods, is made as follows: Put 1 lb. bicarbonate of soda into a kettle, add 1 gal. boiling water and let boil from 10 to 15 minutes, then stir in 1 lb. chloride of lime. When all is thoroughly dissolved strain quickly through cheesecloth to remove any hard particles of the lime which may be left, as these will eat holes in the goods with which they come in contact. To use the Javelle Water, add a cupful to the water in the wash tub before boiling the clothes.

**Wool Comforters.**

So many methods for preparing wool for comforters have come that surely there should be no cold toes next winter. We publish three, in which the treatment is given in slightly different detail. Also we thank "Farmer's Wife," Frontenac and others whose letters do not appear because no more are necessary.

Dear Friends of the Ingle Nook.—As we have taken "The Farmer's Advocate" as long as I can remember it is an old friend. I do enjoy reading the Ingle Nook chats with all their cheery helpfulness. In the last number I see "A Farmer's Wife" wishes to know how to make wool comforters and as we have made them for years I thought I might help. The main point is to have the wool thoroughly boiled in suddy water then well washed and dried before carding. If she could send it to the woolen mill to card it would be easier handling; if not it may be done by hand with cards like our grandmothers used, bring careful to make them even, and let them come well together so there will be no bare spots in the comforters when finished. It would not be necessary then to inter-line unless she wishes. If she cards the wool herself the bats will be smaller and will require closer quilting. Do not tie, as the wool has a tendency to lump up leaving bare spots. Quilt not more than three or four inches apart. Two pounds of wool should be enough to make a good warm comforter unless she wants it extra large.

If "Farmer's Wife" has not the wool

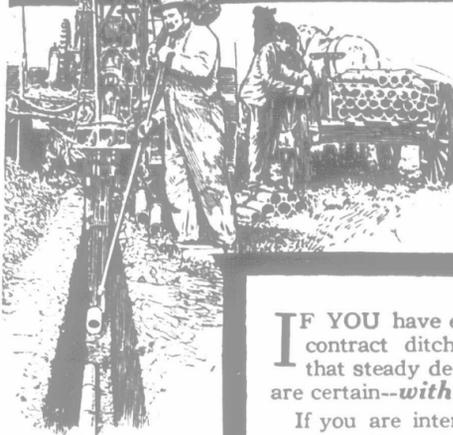
of her own she can buy it ready for use done up in bundles similar to cotton balls. "ANOTHER FARMER'S WIFE."  
Elgin Co., Ont.

Dear Junia.—I am going to reply to a request re wool comforters. I have made them successfully. In the first place wash the wool thoroughly with hot soap-suds, then put in it the boiler and boil for 5 or 10 minutes. This is imperative for it is the boiling that prevents it creeping through. After boiling rinse in hot water and squeeze as dry as you can. Then I put mine in old lace curtains (made like bags) and hang on the clothes line for several days until thoroughly dry. If you have the old-fashioned carders you can card it into bats. If not take it to a woolen mill and have it carded. If no mill is handy it can be successfully picked, that is pulled apart until it is a fine, fluffy article like heaps of snow. Do not put the wool in any thing thin, but get the best art print or cover down proof sateen. They will last a life time and it is well worth the trouble. I have made two wool comforters and two down comforters and am very much pleased with my work.

A READER OF "THE ADVOCATE."  
Halton Co., Ont.

Dear Junia.—I am sending my experience with wool comforters. Wash the wool well and then boil it in a large kettle or pan see that it boils well then dry and pick it and pull and pat it down in nice flat bunches and put on the lining without casing and it will

## Contract Ditching A Big-Profit, Spare-Time Business for Farmers



**Ed. Uvaas Made \$1900 in 84 Days' Work**

I purchased one of your No. 1 traction ditching machines in April, 1918, and the gross earnings from 84 days' operation were \$2200. I paid out for help and supplies \$287.00, and my repair bills amounted to \$20. This netted me \$1902.00. My crew consisted of one man, beside myself. I had never done contract ditching before getting your machine, and my farm work took up considerable of my time.  
ED. UVAAS, Larsen, Wisconsin

**\$6,350 from one Season's Ditching for J. E. Griffith**

I own and operate a No. 1 Contractor's Buckeye Ditcher and as an investment it cannot be beat. I recommend it to any one going into the business.

I have dug 268 rods in 10 hours, and I dug 18,370 rods earning \$6,350 during the 1918 season. During that time I was often held up by lack of tile, and harvest. I average 175 rods per day.

J. E. GRIFFITH,  
London, Ontario.

**R. W. Sherrard made \$71.00 in one day**

On one job I cut 117 rods of ditch, averaging 42 inches deep, made four connections and two curves in one actual day's work, for which I received \$71. I passed the 41 mile mark of ditching with my machine on this job, and the machine is in A-1 condition. This, in a little over three years, and I have not run the machine one half the time, having other work to attend to.

R. W. SHERRARD,  
Rochester, Indiana.

**IF YOU** have ever looked into the contract ditching field, you know that steady demand and big profits are certain—with the right ditcher.

If you are interested in getting the cream of the contracts in your vicinity, get in touch with us immediately. Whether you are an experienced contractor or just thinking of getting into the work, on either a full-time or part-time basis, get the facts regarding the

**"A Perfect Trench at One Cut"**  
**BUCKEYE**  
Traction Ditcher

This machine is the undisputed leader under all conditions of soil and climate. It furnishes its own power. It cuts through hardpan and frost. It operates well in swampy land. It gives you 100 to 150 rods of ditch each day—every foot clean, smooth, true to grade and ready for tile or pipe.

Drop us a line today. Let us show you how others have become independent through this work—how you can do the same, right in your locality.

**Free Book Tells How**

Our interesting book, "Dollars in Ditches," will be sent to you on request. It shows what hundreds of others are doing with Buckeye traction ditchers. It tells how this big institution stands behind you. It describes the machine in detail. It shows the average prices charged and the average profits made.

A letter or post card will bring it free.

**The Buckeye Traction Ditcher Co.**  
206 Crystal Ave. Findlay, Ohio.

never work th  
to have a set  
never learned  
the wool in as  
too large a b  
quilts and com  
old and the ab  
they were mad  
You can p  
We like three  
light weight m  
to a tie down  
this will be of  
of recent issu  
Peel Co., O

**Spr**

**One-Egg On**  
with a little m  
1½ tablespoon  
add more milk  
half a pint. P  
cover and cool  
too quickly, ur  
then place in t  
Dot with butte  
the omelet pla  
hot canned p  
thing else you

**Dandelion G**  
lion plants wit  
to retain the c  
and crowns, d  
through sever  
to cook using v  
adheres to the  
dry, cut up fi  
pepper and sa  
hot on buttere  
are rich in vit  
cellent food v  
potatoes.

**Steamed M**  
¼ cup mola  
fat, ¼ cup s  
½ cup hot wa  
for 3 hours i  
dividual dish  
good sauce fl  
serves eight.

**Apple Sau**  
sugar, 1½ cu  
1½ cups appl  
mon, ¼ cup  
1½ square cl  
be used. Cre  
add apple sa  
Sift all dry ing  
first mixture  
richer cake is  
raisins, ½ cu  
chopped nuts

**Corn Chow**  
4 cups potato  
salt pork, 1 s  
milk, salt ar  
in small piec  
onion and bro  
minutes then  
to the fat, th  
water and co  
and milk. H  
and serve.

**Baked Rice**  
steak, 2 cups  
tomatoes, 2¼  
grated cheese  
dash of Cayer  
cubes and bro  
fat. Add be  
Season highl  
is tender. J  
the fire add  
until just me  
to use up ch  
hand.

**Seri**

**"H**  
BY  
(Serial rights  
Advocate

**CH**  
On the floo  
who was co  
looked at her  
"What's th  
"Laura's h  
again with h  
alone for th  
in my room  
"Very wel  
they went d  
borah was s  
the talking.

never work through. My mother used to have a set of cards for carding but I never learned to use them, so just put the wool in as I picked it by not picking too large a bunch at a time. I have quilts and comforters thirty to forty years old and the above mentioned is the way they were made.

You can put in from one to three lbs. We like three lbs. for a comforter made of light weight material or one and one-half to a tie down crazy quilt. Hoping that this will be of some use to the enquirer of recent issue.

Peel Co., Ont. "FARMER'S WIFE."

Spring Cookery.

**One-Egg Omelet.**—Beat 1 egg well, with a little milk and pinch of salt, add 1 1/2 tablespoons flour, beat again, then add more milk gradually until it measures half a pint. Put in a well-greased spider, cover and cook on top of the stove, not too quickly, until the bottom is browned; then place in the oven for the top to dry. Dot with butter and fold. You may serve the omelet plain, or put grated cheese, hot canned peas, fried onion or anything else you like between the fold.

**Dandelion Greens.**—Cut out the dandelion plants with a sharp knife, being sure to retain the crowns. Cut off the leaves and crowns, discarding the roots. Wash through several waters and put at once to cook using very little water except what adheres to the leaves. When done drain dry, cut up fine, seasoning with butter, pepper and salt, re-heat and serve very hot on buttered toast. All kinds of greens are rich in vitamins and are a very excellent food when eaten with bread or potatoes.

**Steamed Molasses Pudding.**—One egg, 1/4 cup molasses, 2 tablespoons melted fat, 1/4 cup sugar, 2 teaspoons soda in 1/2 cup hot water, 1 1/4 cups flour. Steam for 3 hours in a mould, or in small individual dishes for 1 hour. Serve with good sauce flavored with vanilla. This serves eight.

**Apple Sauce Cake.**—One cup brown sugar, 1 1/2 cups flour, 1 teaspoon soda, 1 1/2 cups apple sauce, 1 teaspoon cinnamon, 1/2 cup shortening or chicken fat, 1 1/2 square chocolate, or cocoa may be used. Cream sugar and fat together, add apple sauce and melted chocolate. Sift all dry ingredients together, add to the first mixture and bake in a loaf. If a richer cake is desired add 1/2 cup chopped raisins, 1/2 cup chopped dates, 1 cup chopped nuts—or any one of the three.

**Corn Chowder.**—One cup canned corn, 4 cups potatoes (diced), small piece of salt pork, 1 slice onion, 4 cups scalded milk, salt and pepper. Cut the pork in small pieces and fry out. Add the onion and brown. Parboil the potatoes 5 minutes then drain. Add the potatoes to the fat, then add 2 cups boiling potato water and cook until done. Add corn and milk. Heat to boiling point, season and serve.

**Baked Rice and Steak.**—One lb. round steak, 2 cups boiled rice, 1 cup canned tomatoes, 2 1/4 level teaspoons salt, 1/2 cup grated cheese, 1/4 teaspoon pepper or a dash of Cayenne. Cut the steak in inch-cubes and brown them thoroughly in the fat. Add boiled rice and tomatoes. Season highly. Cook slowly until meat is tender. Just before removing from the fire add the grated cheese stirring until just melted. This is a good way to use up cheese that has become too hard.

Serial Story

"His Family."

BY ERNEST POOLE.

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

CHAPTER XXXII.

On the floor below she met her father, who was coming out of his room. He looked at her keenly:

"What's the trouble?"

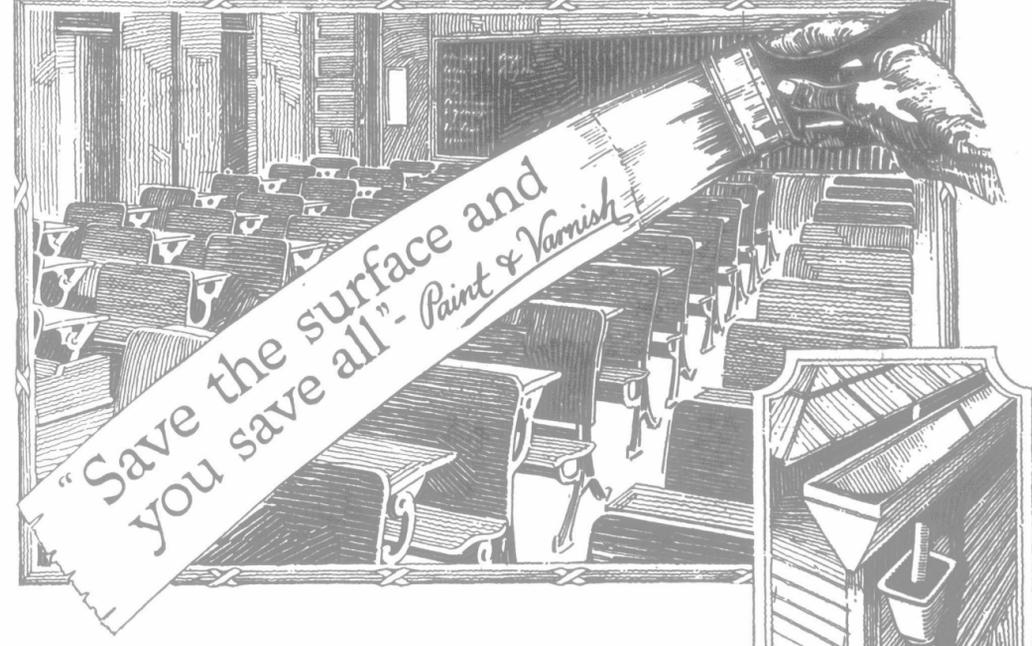
"Laura's here," she answered. "Trouble again with her husband. Better leave her alone for the present—she's going to stay in my room for a while."

"Very well," her father grunted, and they went down to dinner. There Deborah was silent, and Edith did most of the talking. Edith, quite aware of the

"SALADA" Tea is Pure Tea, Fragrant and of Delicious Flavor, stimulating and refreshing. "Watch for the Name" on every genuine sealed packet.

"SALADA"

27 Years in Public Service.



A school room Lesson too seldom learned

SCHOOL days are rough days for school furniture; there is hardly any varnished article that has to stand what desk and chairs in the school go through.

Their salvation is surface protection. Ordinary wear and tear leave their surfaces uninjured. It is a hard test but varnish is equal to it!

Interest to you lies in what it teaches.

It teaches that in your own home you can have the same protection.

You know better than anyone else what the good floors and good furniture in your home have to stand. You know, but do you think much about it?

Do you accept it as a necessary evil or do you realize that by keeping every surface intact under a tough, enduring protective coating you will save your property—save replacing furniture—save repairing, indoors and out?

The surface is the danger point. The surface is the point attacked. Whether property be wood, metal, stucco or concrete the surface is the place where deterioration tries to get a foothold. It has no chance if there is always a protective coating in the way.

Look at all your property from this extremely important angle. Save the surface and you save all.

THIS ANNOUNCEMENT is issued by the Canadian Save the Surface Campaign Committee, for the purpose of educating the public in the Preservative and Protective value of Paint, Varnish and Allied Products for the Conservation of Property, and has received the approval of the Canadian Trade Commission in the following words:

"The realization of the above objects will lead to employment during the Reconstruction Period and bears our entire approval.

THE CANADIAN TRADE COMMISSION



*Harry M. Jones*  
Commissioner.

"SAVE THE SURFACE AND YOU SAVE ALL" Paint & Varnish

WOOD	PLASTER	CONCRETE	MANUFACTURED PRODUCTS	METAL	BRICK
------	---------	----------	-----------------------	-------	-------

Many people never think of their cave troughs until a leak occurs. Cave troughs cannot be expected to last indefinitely unless given surface protection. Inspect them frequently. Paint them thoroughly.

ing Time Farmers

Made \$1900 in Days' Work

one of your No. 4 machines in April, 1915, and things from 84 days' operation. I paid out for help \$287.00, and my repair bill to \$20. This netted me a profit of \$1900. I had never done one before getting your machine. It took up considerable time.

AAS, Larsen, Wisconsin

into the you know big profits ditcher.

etting the r vicinity, Whether you st thinking a full-time arding the

KE

ted leader climate. It rough hard-vampy land. ditch each ue to grade

ow you how through this ight in your

How n Ditches," It shows kevestration stands behind It shows the profits made. free.

her Co. ay, Ohio.

y it ready for use ilar to cotton balls. ARMER'S WIFE."

going to reply to mforters. I have lly. In the first thoroughly with in the boiler and tes. This is imiling that prevents After boiling rinse eze as dry as you in old lace curtains ang on the clothes until thoroughly the, old-fashioned into bats. If not mill and have it handy it can be is pulled all apart article like heaps the wool in any the best art print ateen. They will is well worth the two wool com-omforters and am th my work. HE ADVOCATE."

sending my ex-omforters. Wash boil it in a large it boils well then and pull and pat nches and put on eing and it will



### Mrs. Smith Helps Out

"—And, oh yes, I want a bag of Cream of the West Flour."

"Now that's too bad! I'm completely sold out of it, Mrs. Young. But I'm getting some in the day after to-morrow."

"Not till then?"

"I'm afraid not. We've had quite a run on it lately. Mrs. Fred Smith got the last bag this morning."

"Oh! Well that's all right. I'll borrow some from her. I'm baking bread to-morrow, and I simply *must* have



## Cream of the West Flour

the hard wheat flour that is guaranteed for bread

Maple Leaf Milling Co., Limited, - Toronto, Canada

12

### BABY COVERED WITH ECZEMA

When 4 Days Old. Cross and Cried. Cuticura Heals.

"My baby brother had eczema which began when he was about four days old. It came in little pimples and then a rash, and he was covered. He was so cross that he could not sleep, and he cried.

"This lasted about two months before we used Cuticura. It helped him, so we bought more, and he was all healed after we had used two cakes of Soap and two boxes of Ointment." (Signed) Miss Almeda Williams, Youngs Cove, N. B., May 22, 1918.

Use Cuticura Soap, Ointment and Talcum for all toilet purposes.

Soap 25c, Ointment 25 and 50c. Sold throughout the Dominion. Canadian Depot: Lyman, Limited, St. Paul St., Montreal. Cuticura Soap shaves without mug.

### Sweet Clover Seed

\$22.50 per bus. delivered

Government Standard, No. 1 for purity. It is fast, taking the place of other clovers. It yields heavy crops and is a sure catch. Mail your order to-day, our stock is limited.

A. S. HUNTER & SON, Durham, Ontario

"Advocate" Advts. Pay.

### Supply and Demand Govern Price and Profits

The demand for food exceeds the supply, consequently prices are up and producers are assured good profits. The more produced, the larger the returns!

Wise farmers will cultivate every available acre. If this means outlay of capital beyond your immediate cash resources, discuss the subject of a loan with the manager of our nearest branch.

## THE DOMINION BANK

780

### WANTED

### CORD WOOD IN CARLOTS

Highest prices paid. We will buy any kind of 4 foot wood. Write at once, stating what you have.

BEACHVILLE WHITE LIME CO., :: Beachville, Ontario

she give up one evening, just one, and get Laura out of this snarl she was in? He heard her at the telephone, and presently she came back to them.

"Oh, Edith," she said casually, "don't send any supper up to Laura. She says she doesn't want any to-night. And ask Hannah to put a cot in my room. Will you?"

"Yes, dear, I'll attend to it."

"Thanks." And again she left them. In silence, when the front door closed, Edith looked at her father. This must be rather serious, Roger thought excitedly. So Laura was to stay all night, while Deborah gallivanted off to those infernal schools of hers! He had little joy in his paper that night. The news of the world had such a trick of suddenly receding a million miles away from a man the minute he was in trouble. And Roger was in trouble. With each slow tick of the clock in the hall he grew more certain and more disturbed. An hour passed. The clock struck nine. With a snort he tossed his paper aside.

"Well, Edith," he said glumly, "how about some chess this evening?" In answer she gave him a quick smile of understanding and sympathy.

"All right, father dear." And she fetched the board.

But they had played only a short time when Deborah's latchkey was heard in the door. Roger gave an angry hitch to his chair. Soon she appeared in the doorway.

"May I talk to you, father?" she asked.

"I suppose so." Roger scowled.

"You'll excuse us, Edith?" she added.

"Oh, assuredly, dear." And Edith rose, looking very much hurt. "Of course, if I'm not needed—"

At this her father scowled again. Why couldn't Deborah show her sister a little consideration?

"What is it?" he demanded.

"Suppose we go into the study," she said.

He followed her there and shut the door.

"Well?" he asked, from his big leather chair. Deborah had remained standing.

"I've got some bad news," she began.

"What is it?" he snapped. "School burnt down?"

Savagely he bit off a cigar.

"I've just had a talk with Harold," she told him. He shot a glance of surprise and dismay.

"Have, eh—what's it all about?"

"It's about a divorce," she answered.

The lighted match dropped from Roger's hand. He snatched it up before it was out and lit his cigar, and puffing smoke in a vigilant way again he eyed his daughter.

"I've done what I could," she said painfully, "but they seem to have made up their minds."

"Then they'll unmake 'em," he replied, and he leaned forward heavily. "They'll unmake 'em," he repeated, in a thick, unnatural tone. "I'm not a'goin' to hear to it!"

In a curious manner his voice had changed. It sounded like that of a man in the mountains, where he had been born and raised. This thought flashed into Deborah's mind and her wide resolute mouth set hard. It would be very difficult.

"I'm afraid this won't do, father dear. Whether you give your consent or not—"

"Wun't, wun't it! You wait and see if it wun't!" Deborah came close to him.

"Suppose you wait till you understand," she admonished sternly.

"All right, I'm waiting," he replied. She felt herself trembling deep inside.

She did not want him to understand, any more than she must to induce him to keep out of this affair.

"To begin with," she said steadily; "you will soon see yourself, I think, that they fairly loathe the sight of each other—that there is no real marriage left."

"That's fiddlesticks!" snapped Roger.

"Just modern talk and new ideas—ideas you're to blame for! Yes, you are—you put 'em in her head—you and your gabble about woman's rights!" He was angry now. He was glad he was angry. He'd just begun!

"If you want me to leave her alone," his daughter cut in sharply, "just say so! I'll leave it all to you!" And she saw him flinch a little. "What would be your idea?" she asked.

"My idea? She's to go straight home and make up with him!"

She hesitated. Then she said: "Suppose there's another woman."

"Then he's a beast," growled Roger.

"And yet you want her to live with him?"

### Do Your Banking by R. F. D.



Make the mail your messenger; and save yourself the long rides to town. Deposits may be made—butter and cheese cheques cashed—money withdrawn—just as easily and safely by mail as in person. Write the manager to tell you all about this convenient plan of **Banking By Mail**—or call in and have it explained, the next time you are town.

## THE MERCHANTS BANK OF CANADA

Head Office: Montreal Established 1864.  
 With its 138 Branches in Ontario, 44 Branches in Quebec, 1 Branch in New Brunswick, 2 Branches in Nova Scotia, 36 Branches in Manitoba, 46 Branches in Saskatchewan, 86 Branches in Alberta, and 12 Branches in British Columbia, serves rural Canada most effectively.  
 WRITE OR CALL AT NEAREST BRANCH.

## TO BUY SEED GRAIN

This Bank is desirous of being of assistance to progressive farmers. Should an advance be necessary to buy seed grain—call and see our local Manager. He will be glad to discuss with you any matters in relation to the financing of your products.

## IMPERIAL BANK OF CANADA

180 Branches in Dominion of Canada.

## Lister PREMIER Cream Separator

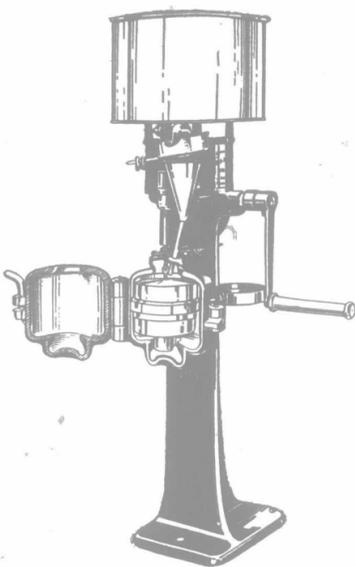
YOU have always had the highest opinion of the thoroughness and reliability of machines made up to the high British standard, and rightly so.

The Lister Premier Cream Separator helped to build the world-wide reputation. One trial will convince you that for clean-skimming, easy cleaning and easy running it has no equal. No working parts are exposed to dust. It is the simplest machine made—can be taken apart and reassembled in a few minutes.

Skim-milk delivery is up high enough to permit of large can being used. Discs are aluminum and never can rust. They go on in any order. This saves time and bother. All revolving parts run in oil—ensuring continuous easy-running and cleanliness.

See our agent in your town or write direct for full particulars.

Lister Engines and Grinders  
 —Lister Silos and Silo  
 Fillers — Avery Tractors



R. A. Lister & Company (Canada), Limited  
 58-60 Stewart St., TORONTO

He scowled, he felt baffled, his mind in a whirl. And a wave of exasperation suddenly swept over him.

"Well, why shouldn't she?" he cried. "Other wives have done it—millions! Made a devilish good success of it, too—made new men of their husbands! Let her show him she's ready to forgive! That's only Christian, ain't it? Hard? Of course it's hard on her! But can you tell me one hard thing she has ever had to do in her life? Hasn't it been pleasure, pleasure from the word go? Can't she stand something hard? Don't we all of us have to? I do—God knows—with all of you!" And he puffed his cigar in a fury. His daughter smiled. She saw her chance.

"Father," she said, in a low, clear voice, "You've had so many troubles. Why not leave this one to me? You can't help—no matter how hard you try—you'll only make it worse and worse. And you've been through so much this year—you've earned the right to be quiet. And that's what they want, both of them—they both want it quiet, without any scandal." Her father glared, for he knew about scandal, he handled it in his office each day. "Let me manage this—please," she said. And her offer tempted him. He struggled for a moment.

"No, I won't!" he burst out in reply. "I want quiet right enough, but not at the price of her peace with her God!" This sounded foolish, he felt that it did, and he flushed and grew the angrier. "No, I won't," he said stubbornly. "She'll go back to him if I take her myself. And what's more," he added, rising, "she's to go straight back to-night!"

"She is not going back to-night, my dear." And Deborah caught her father's arm. "Sit down, please—" "I've heard enough!"

"I'm afraid you haven't," she replied. "Very well." His smile was caustic. "Give me some more of it," he said.

"Her husband won't have her," said Deborah bluntly. "He told me so himself—to-night."

"Did, eh—then I'll talk to him!" "He thinks," she went on in a desperate tone, "that Laura has been leading—her own little life—as he put it to me."

"Eh?" "He is bringing suit himself." "Oh! He is!" cried Roger hoarsely. "Then I will talk to this young man!" But she put out a restraining hand:

"Father! Don't try to fight this suit!" "You watch me!" he snarled. Tears showed in her eyes:

"Think! Oh, please! Think what you're doing! Have you ever seen a divorce-court—here, in New York? Do you know what it's like? What it can be like?"

"Yes," Roger panted. He did know, and the picture came vividly into his mind—a mass of eager devouring eyes fixed on a girl in a witness chair. "Tomorrow I see a lawyer!" he said.

"No—you won't do that, my dear," Deborah told him sadly. "Laura's husband has got proofs."

Her father looked up slowly and glared into his daughter's face. "I've seen them myself," she added. "And Laura has admitted it, too."

Still for a moment he stared at her. Then slowly he settled back in his chair, his eyes dropped in their sockets, and very carefully, with a hand which was trembling visibly, he lifted his cigar to his lips. It has gone nearly out, but he drew on it hard until it began to glow again.

"Well," he asked simply, "what shall we do?"

Sharply Deborah turned away. To be quiet, to be matter of fact, to act as though nothing had happened at all—she knew this was what he wanted now, what he was silently begging her to be for his sake, for the family's sake. For he had been raised in New England. And so, when she turned back to him, her voice was flat and commonplace.

"Keep her here," she said. "Let him do what he likes. There'll be nothing noisy, he promised me that. But keep her here till it's over."

Roger smoked for a moment, and said, "There's Edith and her children." "The children needn't know anything—and Edith only part of it." "The less, the better," he grunted. "Of course." She looked at him anxiously. This tractable mood of his might not last. "Why not go up and see her now—and get it all over—so you can sleep?"

Over Roger's set heavy visage flitted a

## Dye That Skirt, Coat or Blouse

"Diamond Dyes" Make Old, Shabby, Faded Apparel Just Like New.

Don't worry about perfect results. Use "Diamond Dyes," guaranteed to give a new, rich, fadeless color to any fabric, whether wool, silk, linen, cotton or mixed goods,—dresses, blouses, stockings, skirts, children's coats, draperies,—everything! A Direction Book is in package. To match any material, have dealer show you "Diamond Dye" Color Card.

## Deafness



Perfect hearing is now being restored in every condition of deafness or defective hearing from causes such as Catarrhal Deafness, Relaxed or Sunken Drums, Thickened Drums, Roaring and Hissing Sounds, Perforated, Wholly or Partially Destroyed Drums, Discharge from Ears, etc.

**Wilson Common-Sense Ear Drums**  
 "Little Wireless Phones for the Ears" require no medicine but effectively replace what is lacking or defective in the natural ear drums. They are simple devices, which the wearer easily fits into the ears where they are invisible. Soft, safe and comfortable. Write today for our 168 page FREE book on DEAFNESS, giving you full particulars and testimonials.  
**WILSON EAR DRUM CO.,** Incorporated  
 795 Inter-Southern Bldg. LOUISVILLE, KY.

### BOOST YOUR TOWN

By Organizing a Band.  
 We will gladly supply you free of charge with full information as to the formation of a good band.  
 Complete Outfits Suggested for Bands.  
**THE WILLIAMS & SONS CO. LIMITED**  
 468 KING ST. WEST, TORONTO



### PREVENT BLACKLEG LOSSES

by using Scientifically Prepared Vaccines  
**Blackleg Vaccine (Blacklegoids)**  
 The reliable blackleg vaccine in pill form.

**Blackleg Aggressin**  
 (GERM-FREE BLACKLEG VACCINE)  
 A natural aggressin.

**Blackleg Filtrate**  
 (GERM-FREE BLACKLEG VACCINE)  
 An aggressin made from cultures.

WRITE FOR FREE INSTRUCTIVE BOOKLETS ON BLACKLEG AND ITS PREVENTION.  
 Animal Industry Department of  
**PARKE, DAVIS & CO.**  
 WALKERVILLE, ONT.

# SEEDS

**Buying from Keith Saves the Middleman's Profit**

## Present Prices:

Red Clover	Per Bushel
No. 1 Gov. Standard	\$45.00
No. 2 " " (Fancy sample, a few grains Fox-tail, too much for No. 1)	43.00
No. 3 " " " "	41.00
No. 3 " " " "	39.00
Alsike Clover	
No. 1 Gov. Standard	45.00
No. 3 " " (No. 1 for purity)	42.00
No. 2 " " " "	42.00
No. 3 " " " "	39.00
Alfalfa Clover	
No. 2 Gov. Standard, Ontario Variegated	43.00
Sweet Clover (Scarified \$1.00 per bush. extra)	
No. 2 Gov. Standard, White Blossom (No. 1 for purity)	25.00
No. 2 " " " Yellow "	25.00
Timothy	
No. 1 Gov. Standard	9.50
No. 2 " " (No. 1 for purity)	8.75
Barley	
Price per bushel—bags free	2.75
Oats	
Banner—Grown in Prince Edward Island	2.00

## Get Our Seed Catalogue FREE

Fifty-four years of seed experience have enabled us to incorporate in our 1920 Seed Catalogue an invaluable fund of information for the agriculturist. It explains in simple language when and how to plant and the best varieties for different sections to produce best results. Write for it at once. It is free. Address Dept. A.

**GEO. KEITH AND SONS**  
124 KING ST. E. — TORONTO

# Clover Seed

I have again secured a nice lot of No. 1 Red Clover Seed, which I am able to offer at \$48.00 per bushel F.O.B. Listowel. I have also about 1,000 bushels of select yellow biennial sweet clover seed, the kind that makes finest and most nutritious hay. Price No. 1 \$30.00, No. 2 \$26.00 F.O.B. Listowel. White Blossom Sweet Clover \$25.00 per bushel F. O. B. Listowel. Orders accompanied by cash will be filled in rotation as received until supply is exhausted.

**J. W. SANGSTER, Listowel, Ont.**

## PRIZE SEED WHEAT

Red Marquis, first prize Richmond Hill Seed Competition, at \$2.90 per bus. f. o. b. Richmond Hill  
**JOHN ROBINSON, Summit Farm, Jefferson P.O.**

# "Direct-to-You" Prices on FIELD ROOTS

**Highly-Productive Qualities Splendid Selection of Varieties**

**YOUR** Root crop is a very important one. The growth of root-fed stock is greatly influenced by the quality of the roots. We have taken special care in the selection and production of our Field Root Seeds. Our 54 years' experience in the seed business has enabled us to produce seeds yielding maximum crops at a minimum of cost. Keith Seeds are quality seeds—and they cost you less.

## YOU NEED THIS BOOK

in planning your field and garden crops and flower garden. It gives authoritative information—gathered from 54 years of practical experience—on when, where and how to plant different varieties for the best results. It will enable you to produce profitably. And it will prove to you that Keith Seeds are lower in price. Write for a copy at once, addressing Dept. A.

**We Prepay Railway Freight In Ontario and Quebec on all orders of \$25.00 or over.**

Because we sell direct to you we eliminate the middleman—giving you the benefit of his profit.

**MANGELS—\$40 per 100 lbs.**

Prizetaker—One pound pkgs. 50c. per lb.; 5 lbs. or more in bulk, 45c. per lb. Giant Half Sugar—one pound pkgs. 50c. per lb.; 5 lbs. or more in bulk 45c. per lb. Yellow Intermediate—One pound pkgs. 50c. per lb.; 5 lbs. or more in bulk, 45c. per lb. Mammoth Long Red—One pound pkgs. 50c. per lb.; 5 lbs. or more in bulk, 45c. per lb.

**SWEDE TURNIPS—\$55 per 100 lbs.**

Prizetaker— $\frac{1}{4}$  lb., 30c.;  $\frac{1}{2}$  lb., 45c.; one lb. pkgs. 75c. per lb.; 4 lbs. or more, 70c. per lb. Canadian Gem— $\frac{1}{4}$  lb., 30c.;  $\frac{1}{2}$  lb., 45c.; one lb. pkgs. 75c. per lb.; 4 lbs. or more, 70c. per lb. Elephant or Jumbo— $\frac{1}{4}$  lb., 30c.;  $\frac{1}{2}$  lb., 45c.; one lb. pkgs. 75c. per lb.; 4 lbs. or more, 70c. per lb. Scottish Champion— $\frac{1}{4}$  lb., 30c.;  $\frac{1}{2}$  lb., 45c.; one lb. pkgs. 75c. per lb.; 4 lbs. or more, 70c. per lb.

**CARROTS—\$60 per 100 lbs.—Mammoth Smooth White Intermediate— $\frac{1}{4}$  lb. 30c.;  $\frac{1}{2}$  lb., 50c.; 1 lb., 75c.; 4 lbs. or more, 70c. per lb.**

**Farmers' Club Orders Divided Without Extra Charge.**

**It is FREE**

**WE SELL DIRECT No Middleman's Profit**



**GEO. KEITH AND SONS**  
124 KING ST. E. — TORONTO

# Greatest Tire Offer Ever Made!

While other tire dealers advanced their prices 20% on March 1st, we still offer the greatest tire bargains ever known in Canada. These tires will give you more mileage per dollar than any other tire on the market, regardless of price.

We will ship genuine new tires on approval to any address in Canada.

All you need do is send in your order by mail or wire. The tires will reach you express paid C.O.D. If you are satisfied—buy them—if not, ship them back at our expense.

You will never get tires elsewhere at these prices. Look at them:

Size	Plain Tread	Non-Skid Tread
30x3 $\frac{1}{2}$	\$13.50	\$16.50
32x3 $\frac{1}{2}$	17.00	20.00
31x4	18.00	22.00
33x4 $\frac{1}{2}$	20.00	24.00
34x4 $\frac{1}{2}$	22.00	26.00
35x4 $\frac{1}{2}$	28.00	32.00

Other sizes in proportionately low prices. When ordering state size and style—whether "Clincher" or "Straight Wall," plain or non-skid.

**Tubes Extraordinary!**  
30x3 $\frac{1}{2}$ —fully guaranteed—\$2.25.

**Security Tire Sales Co.**  
516 Yonge Street, Toronto

**BOY'S AND GIRL'S** You can earn a lot of money by securing new subscriptions to THE FARMER'S ADVOCATE AND HOME MAGAZINE. You can do it in your SPARE TIME. Write for instructions. THE WILLIAM WELD CO., LTD., London, Canada

smile of grim relish at that. Sleep! Deborah was funny. Resolutely he rose from his chair.

"You'll be careful, of course," she admonished him, and he nodded in reply. At the door he turned back:

"Where's the other chap?" "I don't know," she answered. "Surely you don't want to see him—" Her father snorted his contempt:

"See him? No. Nor she neither. She's not to see him. Understand?" "I wouldn't tell her that to-night."

"Look here," Roger eyed his daughter a moment. "You've done well. I've no complaint. But don't try to manage everything."

He went out slowly and climbed the stairs. Outside the bedroom door he paused. When had he stood like this before? In a moment he remembered. One evening some two years ago, the night before Laura's wedding, when they had had that other talk. And so it had come to this, had it. Well, there was no use making a scene. Again, with a sigh of weariness, Laura's father knocked at her door.

"Come in, Deborah," she said. "It isn't Deborah, it's I." There was a little silence.

"Very well, father, come in, please." Her voice sounded tired and lifeless. He opened the door and found the room dark. "I'm over on the bed," she said. "I've had a headache this evening."

He came over to the bedside and he could just see her there, a long shadow upon the white. She had not taken off her clothes. He stood a moment helplessly.

"Please don't you talk to me!" His daughter fiercely whispered. "I can't stand any more to-night!"

"I won't," he answered. "It's too late." Again there was a pause.

"What time is it?" she asked him. But he did not answer.

"Well, Laura," he said presently, "your sister has told me everything. She has seen your husband—it's all arranged—and you're to stay here till it's over."

"You want to stay here, don't you?" "Yes."

"Then it's settled," he went on. "There's only one other thing—the other man. I don't know who he is, and I don't want to know. And I don't want you to know him again. You're not to see him. Understand!" For a moment Laura was silent.

"I'm going to marry him, father," she said. And standing in the darkened room Roger stiffened sharply.

"Well," he answered, after a pause, "that's your affair. You're no longer a child. I wish you were," he added.

Suddenly in the darkness Laura's hand came out clutching for his. But he had already turned to the door.

"Good-night," he said, and left her.

In the hallway below he met Deborah, and to her questioning look he replied, "All right, I guess. Now I'm going to bed." He went into his room and closed the door.

As soon as Roger was alone, he knew this was the hardest part—to be here by himself in this intimate room, with his worn blue rug, these pictures and this old mahogany bed. For he had promised Judith his wife to keep close to the children. What would she think of him if she knew?

Judith had been a broad-minded woman, sensible, big-hearted. But she never would have stood for this. Once he recollected, she had helped a girl friend to divorce her husband, a drunkard who ran after chorus girls. But that had been quite different. There the wife had been innocent and had done it for her children. Laura was guilty, she hadn't a child, she was already planning to marry again. And then what, he asked himself.

"From bad to worse, very likely. A woman can't stop when she's started downhill." His eye was caught by the picture directly before him on the wall—the one his wife had given him—two herdsmen with their cattle high up on a shoulder of a sweeping mountain side, tiny blue figures against the dawn. It had been like a symbol of their lives, always beginning clean glorious days. What was Laura beginning?

"Well," he demanded angrily, as he began to jerk off his clothes, "what can I do about it? Try to keep her from remarrying, eh? And suppose I succeeded, how long would it last? She wouldn't stay here and I couldn't keep her. She'll be independent now—her looks will be her bank account. There'd be some other

## From the Felling of the Tree to the Finished Barn

Preston Barn Experts control the quality of the lumber that goes into

# PRESTON STEEL TRUSS BARN

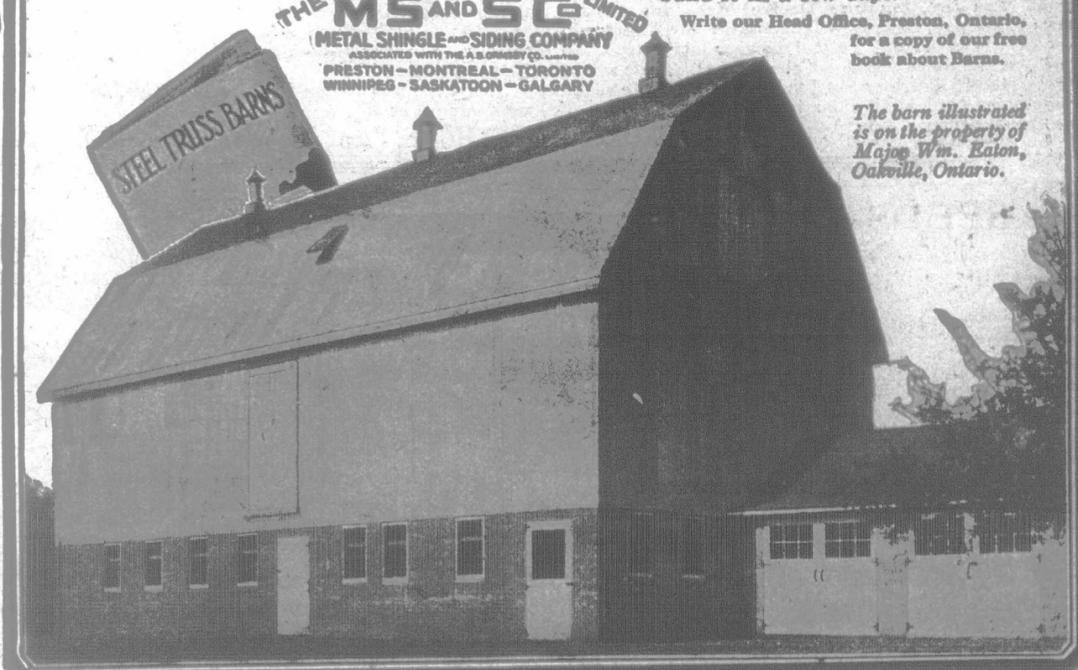
Every plank and board that goes into the construction of a Preston Steel Truss Barn is cut from logs taken out of our own timber limits, handled by our own men and made into lumber by our own saw and planing mills. Nothing but the best goes into Preston Steel Truss Barns.

But the biggest feature of all to recommend Preston Barns to you, is the complete fire protection they insure. Equipped with the Preston System of Lightning Protection, such a barn is safe from electric storms—and being encased in metal, it cannot catch fire from without.

No "raising bee"—no big gang of men—to put up a Preston Barn. A few men will build it in a few days.

Write our Head Office, Preston, Ontario, for a copy of our free book about Barns.

THE M S AND S C LIMITED  
METAL SHINGLE AND SIDING COMPANY  
ASSOCIATED WITH THE A. S. OSBORN CO. LIMITED  
PRESTON - MONTREAL - TORONTO  
WINNIPEG - SASKATOON - CALGARY



The barn illustrated is on the property of Major Wm. Eaton, Oakville, Ontario.

## The Value of Saving

All successful men began by saving. Later, perhaps, they invested, but they first had to accumulate capital.

The first step towards wealth is to open a Savings Account. The second, is to save regularly.

Come in and ask about our simple, convenient, Savings Accounts. Interest compounded every six months soon amounts up.



## THE BANK OF NOVA SCOTIA

Paid-up Capital \$ 9,700,000  
Reserve Fund - 18,000,000  
Resources - - 220,000,000

We invite your account. Special facilities for Banking by Mail 310 Branches. General Office Toronto.

## THE MOLSONS BANK

Incorporated in 1855

Capital and Reserve \$9,000,000

EXPANSION AND FINANCING GO HAND IN HAND

Our managers will gladly discuss your banking requirements with you.

Over 120 Branches



## MAIL CONTRACT

Sealed Tenders, addressed to the Postmaster-General, will be received at Ottawa until noon, on Friday, the 14th day of May, 1920, for the conveyance of His Majesty's Mails, on a proposed Contract for four years, six times per week over Thorndale No. 3 Rural Route, from the first day of October next. Printed notices containing further information as to conditions of proposed Contract may be seen and blank forms of Tender may be obtained at the Post Offices of Thorndale, Belton and London, and at the office of the Post Office Inspector, London.

Post Office Inspector's Office, London, 2nd April, 1920.

CHAS. E. H. FISHER, Post Office Inspector

## 1,000 Live Hens Wanted

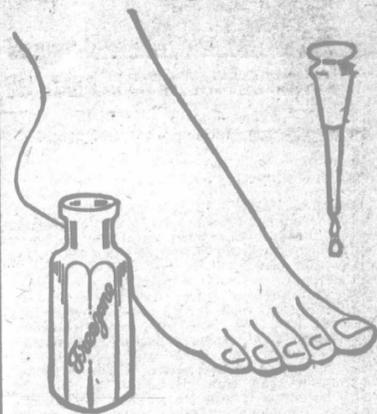
We have a special market for heavy live hens which enables us to pay the very top market price. It will pay you to sell your live poultry and eggs to

C. A. MANN & CO.

78 King Street London, Ontario

## LIFT OFF CORNS!

Apply few drops then lift sore, touchy corns off with fingers



Doesn't hurt a bit! Drop a little Freezone on an aching corn, instantly that corn stops hurting, then you lift it right out. Yes, magic!

A tiny bottle of Freezone costs but a few cents at any drug store, but is sufficient to remove every hard corn, soft corn, or corn between the toes, and the calluses, without soreness or irritation.

Freezone is the sensational discovery of a Cincinnati genius. It is wonderful.

"What are your impressions of No Man's Land?"

"I didn't get into the war," answered the morose citizen. "My only vivid idea of No Man's Land is home while spring housecleaning is going on."—Washington Star.

es on  
OTS

allies  
arleties

OU NEED  
HIS BOOK

anning your field and  
en crops and flower  
en. It gives authori-  
e information—gath-  
from 54 years of  
tical experience—on  
n, where and how to  
t different varieties for  
best results. It will  
le you to produce  
stably. And it will  
e to you that Keith  
are lower in price.  
e for a copy at once,  
essing Dept. A.

Is FREE

ELL  
OT  
Middle-



AND  
SONS  
TORONTO

Offer  
e!

anced their prices 20%  
reatest tire bargains  
es will give you more  
tire on the market,

s on approval to any

in your order by mail  
each you express paid  
d—buy them—if not,  
ense.

s elsewhere at these

Tread	Non-Skid Tread
50	\$16.50
00	17.00
00	25.00
00	34.00
00	33.00

ionately low prices,  
and style—whether  
t Wall," plain or

rdinary!  
anted—\$2.25.

e Sales Co.

, Toronto

g new subscriptions to  
OME MAGAZINE  
Write for instructions.  
London, Canada

## HIGH-CLASS PURE-BRED HOLSTEINS

A Great  
Dispersion Sale of  
**46 Head**  
Forty-four Females  
and  
Two Bull Calves



Lakeview Dutchland Artis

This splendid herd of high-producing, pure-bred Holsteins have all been bred on the farm (except three foundation cows), and are the get of such noted sires as Sir Aggie Wayne-Lad, a splendid son of Johanna Rues 4th Lad, who has over 31 tested daughters and 18 producing sons. The second herd sire, Johanna De Kol Mercedes, and the present herd sire, Lakeview Dutchland Sir Abbekerk, a worthy son of that great Lakeview sire, Dutchland Colantha Sir Mona (the sire of champions). There will be in this sale 18 daughters of Johanna De Kol Mercedes. The present herd sire's dam is the 25-lb. daughter of S. FRANK SMITH & SON Auctioneer

The property of GEORGE H. BETHUNE, Ryckman's Corners, Ont., will be held at the farm, Lot 7, Concession 1, Glanford Township (3 miles south of Hamilton).

Ryckman's Corners

Friday  
**April 16th, 1920**

Madam Posch Pauline, one of the greatest cows in America, and there will be in the sale 9 of his yearling daughters, 9 heifer calves and one bull calf. Although there has never been any testing done in this herd, there is the breeding and individuality that go to make high records. Production has ever been the aim in the building up of this herd. As the farm has been sold there will positively be no reserve. Farm is 2 miles west of Ryckman's Corners. Sale commences 1 p.m.

Credit will be given on furnishing approved joint notes with interest at 6%.

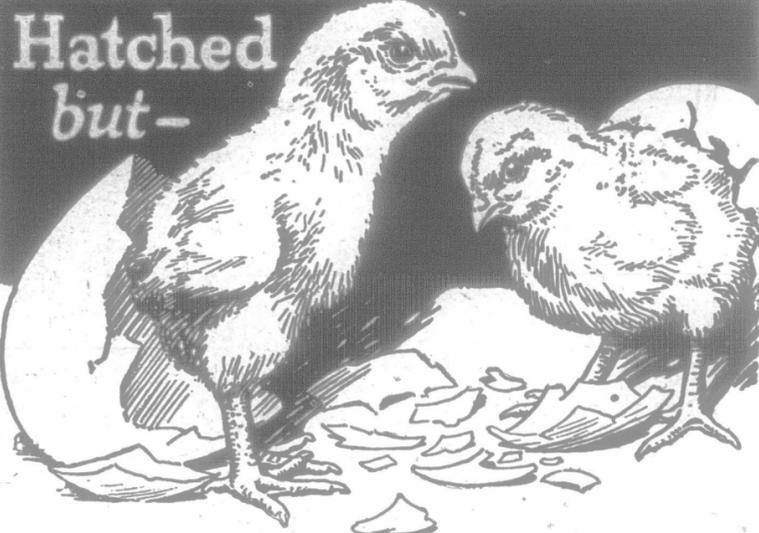
**GEORGE H. BETHUNE, Prop., Ryckman's Corners, Ontario**

### SEEDS

	Per Bus.
No. 1 Red Clover..... Gov't Stan.	48.00
No. 2 Red Clover..... " "	44.00
No. 1 Alsike..... " "	44.00
No. 2 Alsike..... " "	42.00
No. 1 Alfalfa Nor..... " "	35.00
No. 2 Alfalfa—Home-Grown..... " "	49.50
No. 1 Alfalfa, Grimm's..... " "	49.50
No. 2 Sweet Clover—Wht. Blossom, Gov't Stan..... " "	25.50
No. 2 Timothy (No. 1 Purity) Gov't Stan..... " "	9.00
Timothy and Alsike mixed (per 100 lbs.)..... " "	31.50
Wheat—Marquis..... " "	3.00
Barley—O. A. C. No. 21..... " "	2.50
Peas—Golden Vine..... " "	4.00
Oats—Alaska (early)..... " "	2.00
O. A. C. No. 72 (extra choice)..... " "	1.85
O. A. C. No. 72 (choice)..... " "	1.70
Banner (extra choice)..... " "	1.85
Banner (choice)..... " "	1.70
Corn—Ontario grown—Dents (on cob)..... " "	2.90
Dents (shelled)..... " "	2.50
Flints (Shelled)..... " "	3.50
Germination 95%.	
Cotton bags extra at 65c. each.	

Prices are F.O.B. Toronto. Terms are Cash or C.O.D. There is no charge for cartage except on Radial and Steamboat shipments. We guarantee seed to be as represented, or they may be returned at our expense.

**KELLEY FEED AND SEED CO.**  
(Successors to Crampsey & Kelley)  
780 Dovercourt Rd. TORONTO



## How Many Will You Raise?

The loss in little chicks that die the first few weeks after hatching amounts to millions of dollars each year. Everybody must cut down the losses and increase production to the limit this season. How many chicks do you lose from *Gapes? Diarrhoea? Indigestion? Leg Weakness? Weakness from Rapid Growth of Feathers?* Prepare them to withstand little chick ailments by feeding

### Dr. Hess Poultry Pan-a-ce-a

Remember that disease takes the weaklings—not the strong and healthy. And remember that indigestion is at the bottom of many little chick ailments.

*Pan-a-ce-a prevents and cures gapes. Pan-a-ce-a prevents and cures leg weakness.*

*Pan-a-ce-a regulates the bowels. Pan-a-ce-a produces appetite; it promotes digestion.*

And remember good digestion is most essential during the rapid growth of feathers. A Pan-a-ce-a chick will outfeather a non-Pan-a-ce-a chick every time.

Your dealer is authorized to supply you with enough Pan-a-ce-a for your whole flock, with the understanding that it's to prevent and cure *Gapes, Indigestion, Diarrhoea, Leg Weakness*; that you are to see marked results during the growth of feathers; otherwise, he will refund every cent you have paid. 35c, 85c and \$1.75 packages. 25-lb. pail, \$3.50; 100-lb. drum, \$14.00.

**DR. HESS & CLARK, Ashland, O.**

### Dr. Hess Instant Louse Killer Kills Lice

**Is Your Spare Time Worth Money?**  
How you can make money in your spare time in an easy and pleasant way.

Write to The Farmer's Advocate and Home Magazine and learn.

chap in no time, and he might not even marry her!" He tugged ferociously at his boots. "No, let well enough alone!"

He finished undressing, opened the window, turned out the gas and got into bed. Warily he closed his eyes. But after a time he opened them and stared long through the window up at the beetling cliff of a building close by, with its tier upon tier of lighted apartments, a huge garish hive of homes. Yes, the town was crowding down on him to-night, on his house and on his family. He realized it had never stopped, and that his three grown children, each one of them a part of himself, had been struggling with it all the time. Laura—wasn't she part of himself? Hadn't he, too, had his little fling, back in his early twenties? "You will live on in our children's lives." She was a part of him gone wild. She gave it free rein, took chances. God, what a chance she had taken this time! The picture of that court he had seen, with the girl in the witness chair and those many rows of eyes avidly fixed upon her, came back to his mind so vividly they seemed for a moment right here in the room, these eyes of the town boring into his house. Angrily he shut out the scene. And alone in the darkness, Roger said to his daughter all the ugly furious things he had not said to her upstairs—until at last he was weary of it.

"Why am I working myself all up? I've got to take this. It's my medicine." (To be continued.)

### Current Events

Siegfried Sassoon, the famous English poet, and Peter McArthur, spoke at the Bliss Carman benefit in Convocation Hall, Toronto University last week. Among other lecturers recently in Toronto, were Mrs. Emmeline Pankhurst and Hugh Walpole, the noted English novelist.

Five of the Winnipeg strike leaders, Ivens, Johns, Pritchard, Queen and Armstrong, were found guilty of conspiracy.

Two systems of compulsory military training for Canadian young men were advocated in the House of Commons at Ottawa on March 31st, by Major Mowat of Parkdale and Gen. Griesbach of West Edmonton. The schemes were emphatically opposed by Liberal and Farmers' party speakers and by Maj. G. W. Andrews, D. S. O.

The millers of Canada declare that, owing to the cost of manufacture, the price of flour must advance.

Herbert Hoover, who became famous through his War Relief work in Belgium and Northern France, has announced his willingness to accept the Republican nomination for President of the United States.

Many people were killed and hundreds injured by the tornadoes which swept over Northern Chicago and parts of the Southern States on March 28.

Peace negotiations between the Poles and the Bolsheviki are proposed for April 10.

The disturbances in the Ruhr district of Germany are at an end, owing to the determination of the workers themselves to give way to law and order.

A resolution declaring the War with Germany at an end was put before Congress at Washington, on March 31, by the Republicans in control of the House, and, at time of going to press is under debate. The resolution provides for reciprocal trade with Germany under certain restrictions, and gives Berlin 45 days in which to reply. The Lodge reservation to Art. X of the Treaty, which was carried in the U. S. Senate by a vote of 56 to 26, puts the United States under no obligation to help other countries unless Congress so declares.

The Prince of Wales, who is en route to Australia, arrived at the Panama Canal on March 30, afterwards visiting San Diego, Cal., and San Francisco.

The second reading of the Irish Home Rule Bill was carried in the British

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

TERMS—Four cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 60 cents.

FARM, 105 ACRES, TOWNSHIP OF CLINTON, County Lincoln—70 acres cultivated, balance pasture and bush. Soil sandy loam. About 15 acres in fruit, 300 peach trees, 300 young cherries and plums, 3 acres of grapes, 50 apple trees, 50 pear trees, plums, raspberries and small fruits. Buildings—2 frame dwellings. Bank barn, 50x30 feet, room for 12 cows, 3 horse stalls and loose box, pig pens, silo, chicken houses. Water supply good, spring in pasture, and another supplying house and barn—water can be got almost anywhere in the place. Farm is on hill above main road from Hamilton to Niagara. Trolley line stops 1/4 mile from house, 1 1/2 miles to village of Beamsville, 3 miles from Grimsby, 22 miles from Hamilton, good motor road, to close an estate. Immediate possession. Apply, Smith, Rae & Greer, Solicitors, Toronto.

ONE HUNDRED ACRES, BUSH LAND, estimate value, two thousand. Price, eight hundred cash. Box 21 Farmer's Advocate, London, Ont.

PEDIGREED SCOTCH COLLIE PUPS—Sired by imported Bucceluch Specialist, Toronto winner. Sire of dam imported, a New York winner. A. E. Gilbert, Mount Elgin, Ont.

WANTED—MARRIED MAN CAPABLE OF doing all kinds of farm work and of looking after pure-bred Shorthorn cattle and Yorkshire hogs if necessary. State experience and wages expected. Every convenience on farm. Apply Box 98, Farmer's Advocate, London, Ont.

\$3,870.00—86 ACRES; 45 ACRES BEST GARDEN soil; balance clay loam; House, Barn, Pig House; Chicken-house; Implement Shed; Orchard; Gravel Pit on a Good Gravel Road; 2 Miles from 2 Stations. A. D. Urlin, 897 Main St., East, Hamilton, Ont.

and he might not even  
 le tugged ferociously at  
 let well enough alone!"  
 ndressing, opened the  
 out the gas and got into  
 e closed his eyes. But  
 opened them and stared  
 e window up at the  
 building close by, with  
 of lighted apartments, a  
 e of homes. Yes, the  
 ng down on him to-night,  
 nd on his family. He  
 never stopped, and that  
 children, each one of  
 nself, had been struggling  
 me. Laura—wasn't she  
 Hadn't he, too, had  
 ck in his early twenties?  
 in our children's lives."  
 of him gone wild. She  
 n, took chances. God  
 he had taken this time!  
 hat court he had seen,  
 e witness chair and those  
 es avidly fixed upon her,  
 s mind so vividly they  
 oment right here in the  
 of the town boring into  
 ly he shut out the scene.  
 e darkness, Roger said  
 ll the ugly furious things  
 o her upstairs—until at  
 y of it.  
 working myself all up?  
 his. It's my medicine."  
 e continued.)

nt Events

on, the famous English  
 McArthur, spoke at the  
 eft in Convocation Hall,  
 ity last week. Among  
 ecently in Toronto, were  
 Pankhurst and Hugh  
 ed English novelist.

Winnipeg strike leaders,  
 Pritchard, Queen and  
 e found guilty of con-

of compulsory military  
 adian young men were  
 e House of Commons  
 March 31st, by Major  
 ale and Gen. Griesbach  
 on. The schemes were  
 posed by Liberal and  
 speakers and by Maj.  
 D. S. O.

Canada declare that,  
 st of manufacture, the  
 t advance.

er, who became famous  
 Relief work in Belgium  
 rance, has announced  
 accept the Republican  
 President of the United

ere killed and hundreds  
 ornadoes which swept  
 hicago and parts of the  
 n March 28.

ions between the Poles  
 yiki are proposed for

es in the Ruhr district  
 at an end, owing to the  
 he workers themselves  
 y and order.

declaring the War with  
 nd was put before Con-  
 on, on March 31, by the  
 control of the House,  
 going to press is under  
 solution provides for  
 with Germany under  
 ns, and gives Berlin  
 h to reply.  
 to Art. X of the Treaty,  
 d in the U. S. Senate  
 to 26, puts the United  
 obligation to help other  
 ongress so declares.

Wales, who is en route  
 rived at the Panama  
 30, afterwards visiting  
 , and San Francisco.

ding of the Irish Home  
 carried in the British

# The Fairbanks-Morse Agency Sign Stands for Satisfactory Service

The owner of an "F" Power and Light Plant knows that Fairbanks-Morse service means more than the high standard of material, workmanship and design of the plant.

Fairbanks-Morse Agents will show you how you can get the most service out of the "F" Power and Light Plant—both in power and electric current—whether it be driving such machinery as washing machine, separator, and light machines in the workshop, or supplying current for electrically operated equipment.

They will help you convert your present hand-power machinery so that it can be driven by the "F" Plant, or will supply you promptly with the latest improved labor-saving equipment.

If you are interested in the advantages of Power and Light on the farm, send us the coupon asking for the "F" Plant catalogue, which gives full information regarding the most economical power and light plant on the market.

## AGENTS WANTED

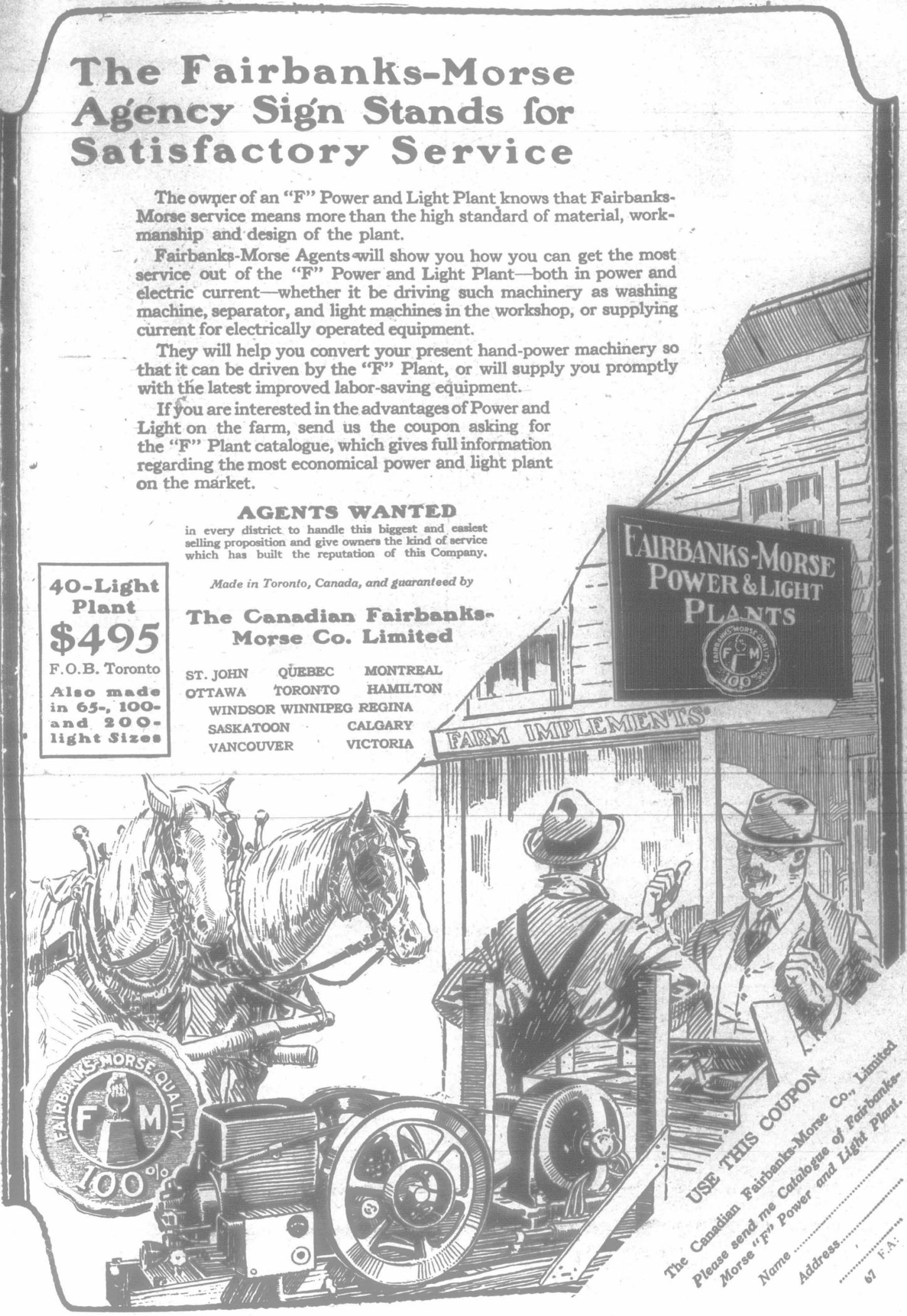
in every district to handle this biggest and easiest selling proposition and give owners the kind of service which has built the reputation of this Company.

Made in Toronto, Canada, and guaranteed by

### The Canadian Fairbanks-Morse Co. Limited

- |           |          |          |
|-----------|----------|----------|
| ST. JOHN  | QUÉBEC   | MONTREAL |
| OTTAWA    | TORONTO  | HAMILTON |
| WINDSOR   | WINNIPEG | REGINA   |
| SASKATOON | CALGARY  |          |
| VANCOUVER | VICTORIA |          |

**40-Light Plant**  
**\$495**  
 F. O. B. Toronto  
 Also made in 65-, 100- and 200-light Sizes



**USE THIS COUPON**  
 The Canadian Fairbanks-Morse Co., Limited  
 Please send me Catalogue of Fairbanks-Morse "F" Power and Light Plant.  
 Name .....  
 Address .....  
 F. A. 67

## POULTRY AND EGGS

**A BEAUTIFUL FREE MATING LIST READY** of trap-nested White Leghorns (wonderful producers). Baby chicks, eggs for hatching, choice pedigreed cocks, cockerels for sale. Drop a card. Bradley Linscott, Seven Acres, Brantford.

**BARRED ROCKS, O. A. C. STRAIN—EGGS** \$1.75 per fifteen, \$9 per hundred. Large, well-barred hens and grand layers: A. A. Lamont, Brussels, Ont.

**BARRED ROCK HATCHING EGGS, PURE** bred strain, 15—\$2.00. Woodycrest Farm, Perth, Ontario.

**BEULAH FARM WHITE WYANDOTTES** are leading their variety at the North American International Egg-Laying Competition; my customers are leading at Canadian Egg-Laying Competitions. Hatching eggs, three and five dollars per fifteen. N. Y. McLeod, Stoney Creek, Ontario.

**BABY CHICKS, ANCONAS, AND LEGHORNS** \$13 per fifty, \$25 per hundred, delivered. Mating list ready, order now. G. A. Douglas, Ilderton, Ont.

**BABY CHICKS—BRED-TO-LAY BARRED** Rocks, 25c. each; S.-C. White Leghorns, 20c. each; hatching eggs, \$2 to \$4.75 per 15. Circular. G. W. Orive, Parkhill, Ont.

**BARRED ROCK COCKERELS, FOUR AND** five dollars each. Get our mating list. Winners at Ottawa Laying Contest. W. J. Johnston, Drawer 240, Meaford, Ont.

**BEAUTIFUL WHITE ROCKS, BRED-TO-LAY**, large brown eggs; two dollars fifteen eggs. S. Hastings, Schomberg.

**BRED-TO-LAY BARRED ROCKS—ONE** seventy-five per setting, five dollars per fifty. Henry Hooper, Guelph, Ont., 83 Nottingham St.

**BABY CHICKS, HATCHING EGGS—BARRED** Rocks, White Rocks, White Wyandottes, Silver Wyandottes, White Leghorns, Rhode Island Reds. Incubator capacity 9,000. Satisfaction guaranteed. Write for price list. Tay Poultry Farm, Perth, Ont., Box 244.

**BABY CHICKS—SINGLE-COMB WHITE** Leghorns, bred-to-lay in fall and winter. Book your order now for April, May and June delivery; safe arrival guaranteed; 25 \$7.50, 50 \$14, 100 \$25. Walnut Glen Poultry Farm, R.R. 4, Chatham, Ont.

**BRED-TO-LAY S.-C. WHITE LEGHORNS—**Chicks 25c. each, \$23 hundred; eggs \$2 setting. Free literature. Cooksville Poultry Farm, Cooksville, Ont.

**BARRED ROCK EGGS—FIFTEEN, \$2.50;** thirty, \$4.75; fifty, \$7.50; \$14 hundred. From well-barred and grand laying hens. Order direct from this advertisement. W. Bennett, Box 43, Kingsville, Ont.

**BARRED ROCKS—OUR STRAIN OF** Barred Rocks are noted for laying; as winter layers there is nothing can beat them. Eggs \$2.00 per setting, six dollars for 50, ten dollars for 100. Central Ontario Poultry Yards, Colborne, Ontario.

**EGGS FOR HATCHING FROM SUPERIOR** egg-producing strains of White Wyandottes and Single-Comb White Leghorns; \$2 per fifteen. J. H. Buttery, R. 7, Strathroy, Ont.

**EGGS FOR SALE—WHITE WYANDOTTES,** silver cup winners; three dollars per 15. A. F. Waddell, Stratford, Ont.

**EGGS FOR HATCHING, FROM BRED-TO-LAY** Barred Rocks; two dollars per fifteen. Wm. L. Hills, Wheatley, Ont.

**FOREMAN'S FAMOUS BARRED ROCKS—**Winners Missouri Egg-Laying Contest. Leading winter and yearly records. Pedigrees of pen from 200-310 eggs. Eggs \$3 per setting. Mrs. Leonard Foreman, Collingwood, Ont.

**HATCHING EGGS—BROWN'S BRED-TO-LAY** Rose Comb Rhode Island Reds, good stock. Fifteen eggs, two dollars; thirty, three-fifty; ten dollars per hundred. Robt. J. Brown, R. 2, Cornwall, Ont.

**IF YOU WANT HATCHING EGGS FROM A** heavy-laying strain of Barred Rocks, write C. L. Bishop, Oxford Mills, Ont.

**BRED-TO-LAY BARRED PLYMOUTH** Rocks. Eggs \$2.00 per fifteen. N. T. Hagan, Port Dover, Ont.

**RHODE ISLAND WHITES—BOTH COMBS.** Meat, eggs, beauty. Stock and eggs for sale. Send for mating list. Dominion Poultry Yards, 288 St. James St., London.

**S.-C. ANCONAS—EGGS FOR HATCHING** \$1.50 per 15, or \$8 per hundred. John A. Polard, Dashwood, R. 2, Ont.

**S. C. WHITE LEGHORNS, BRED-TO-LAY** strain—bred from Guild's best pens, excellent winter layers. Eggs, \$1.50 per fifteen, \$9.00 per hundred. Oscar W. Reed, Fullarton, Ontario.

**S.-C. ANCONAS—EGGS FOR HATCHING, \$3** and \$4 for fifteen, from my best laying and exhibition strains. E. Brown, 502 Grosvenor St., London.

**UTILITY POULTRY FARM—YEARS OF** careful breeding have made our S.-C. Comb White Leghorn Baby Chicks the best in Canada. Order early and avoid disappointment. T. G. Delamere, Prop., Stratford, Ont. G. O. Aldridge, Manager.

**WHITE WYANDOTTES—HEAVY LAYING** strains my speciality. Eggs \$3 per fifteen, \$5 per thirty. Frank Morrison, Jordan, Ont.

**WHITE WYANDOTTES—EGGS FOR HATCHING,** from Martin bred-to-lay strain; \$2.50 per fifteen. A. C. Phipps, R. 4, Caledonia, Ont.

**WHITE WYANDOTTE GUELPH CHAM-**PIONS 1919. Hatching eggs, \$3 per 15; \$5 per 50. Chicks, 35 cents each. Good type. Heavy layers. R. Trivett, Newmarket.

### SUPERIOR BARRED PLYMOUTH ROCK EGGS FOR SALE

From 5 Best Bred-to-lay Families in Both Countries.

Pen No. 1.—Thompson's Imperial Ringlet hens, imported in the eggs, headed by Mr. Coldham's (Kingston, Ont.) Pedigreed Ringlet Cockerels, sired by Parks' \$1,000.00 bird, U.S.A., first dam—hen No. 71 laid 70 eggs in 72 days in mid-winter, 260 brown eggs of standard weight in one year. Price, \$5.00.

Pen No. 2.—Parks' Superior Ringlet strain, imported in the eggs. Of all bred-to-lays, Ringlets are supreme. Price, \$5.00.

Pen No. 3.—The large, dark bred-to-lay strain of Rileys, imported in the eggs. As show birds, they have won the highest awards in U.S.A. Price, \$4.00.

Pen No. 4.—Thompson's large bred-to-lay strain, imported in the eggs, medium light in color, with quality and utility. Price, \$3.00.

Pen No. 5.—The O. A. C. bred-to-lay strain of Guelph; a hardy, handsome fowl, extra good winter layers. Price, \$2.00.

15 per setting. Infertile eggs replaced at half price. Pullet or cockerel bred eggs as desired. Express prepaid.

A. H. CROZIER, Box 16, Meadowdale, Ont.

House of Commons on March 31 by a majority of 254 votes. Several of the Ulster members voted with the Government, although their leader, Sir Edward Carson refused to support it or any bill which will give any degree of Home Rule to Ireland. The 94 who opposed the bill consisted of a few Irish Nationalist members, the old survivors of the Liberal party, and the Labor party. The debate on the Bill began on March 29, Ian McPherson and Austin Chamberlain upholding the Government's plan of two Parliaments for Ireland, while Clynes, Labor Leader, T. P. O'Connor and Lord Robert Cecil opposed it.

Sir Neville Maccready Chief of the Metropolitan Police of London, has been appointed Military Commander in Ireland.

The breaking out of a revolt against the Allies all over Turkey except in Constantinople, is reported from Budapest. The Greeks are taking steps towards occupying Adrianople.

The Independent Labor Party, in convention at London, Ont., plainly indicated that it shall recognize the vote as the only method of securing its objects. It voted for gradual elimination of import duties on the necessities of life, food, clothing (including boots and shoes) and the tools and machinery used in production, the revenues derived from these sources to be raised by taxation of land values and luxuries.

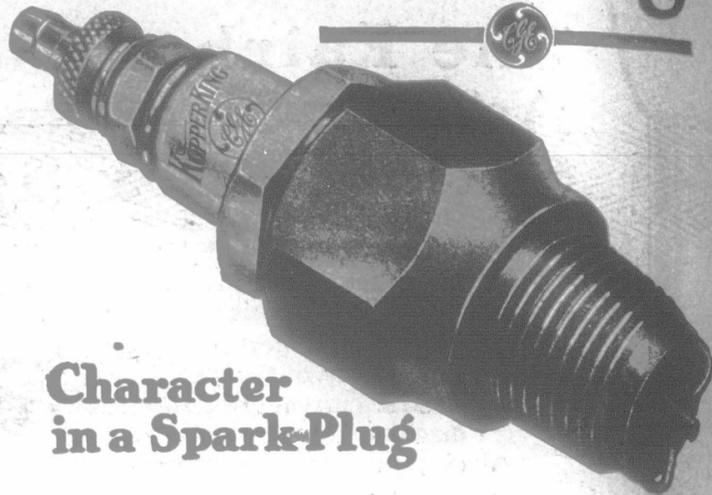
Sir Hamar Greenwood, an Ontario "old boy" has been appointed Secretary for Ireland.

A function was held at the Mansion House, London, England, recently, in celebration of the three hundredth anniversary of the sailing of the "Mayflower" bearing the Pilgrim Fathers to America. At the banquet Lord Reading said that England should have a statue of Washington.

### Sale of Percherons Made at London.

The Lafayette Stock Farm Company of Canada, Limited, London, Ontario, report several recent sales of Percheron stallions and mares. Haas Bros., Paris, Ontario, took a good gray Percheron stallion, weighing one ton; John La-Priese, Wallaceburg, obtained a good black Percheron stallion, weighing well up to 2,050 lbs.; Lester Davies and Brother, proprietors of Thorncliffe Farm, Toronto, got an excellent gray Percheron stallion, and three Percheron mares. In the lot was the champion show mare, Mildred, illustrated in our issue of April 1. Messrs. Davies have been extensive breeders of heavy and light horses, but they express their determination now to go in for Percherons extensively. Robert Penhale, of Bayfield, who purchased a good horse from the Lafayette Stock Farm Company of Canada last year, came back again this spring and got a good black Percheron stallion, weighing 2,100 lbs. He found it necessary to purchase another horse to take care of the business in his district. A new importation of Percheron mares and stallions was brought to the London stables last week, and included in the shipment were two splendid German coach horses with extreme action and ample bone, and they weigh well over 1,500 lbs. Anyone who admires good horses should visit the stables at London, and inspect the wonderful lot of big draft horses that are housed there. Mr. Crouch says he will be glad to show the horses to anyone whether they are buyers or not.

# Kopper King



## Character in a Spark-Plug

**FIRING** the gas vapor, driving down the piston-head hour after hour with an exploding sheet of flame, demands character—not mere metal and insulation—but character expressed in design, in construction methods and workmanship.

The Rust-proof Copper Surface prevents Carbon deposits; carbon will not adhere to copper under Electrical Heat. The Kopper King is without a peer among Spark Plugs. It is a quality plug from first to last. At all dealers, \$1.50.

C.G.E. Automobile Accessories are "Tested for Service."

## Canadian General Electric Company, Limited

Head Office - TORONTO

Branch Offices: Montreal, Sherbrooke, Quebec, Halifax, Sydney, St. John's, Ottawa, Hamilton, London, Windsor, Cobalt, South Porcupine, Winnipeg, Calgary, Edmonton, Nelson, Vancouver and Victoria

# Shorthorn Sale

1 p.m., APRIL 13th, 1920

## "Grandview Farm"

TWENTY HEAD INCLUDING:—

**The herd sire** a grandson of Right Sort (Imp.) and sired by a brother to Escana Champion, Grand Champion at Can. Nat. 1919.

**Seven Young Bulls** of show calibre, roans and reds, and some of serviceable age, and will indicate well the worth of the herd sire.

**The females** are got by such good sires as "Maple Hill Major" by Emperor of Escana. "Spicy Baron" a grandson of Spicy Count (Imp.) "Newton Ideal" (Imp.) "March Cyclone" by Cyclone (Imp.) "King Koral" by Choice Koral (Imp.) "Prince Rupert" by Royal Sailor (Imp.) and "Gloster Prince" by Prince Gloster the good breeding sire used so long in the Dryden herd.

Geo. Crawford, 'Phone 1910, Oro Station, Simcoe County (Near Barrie 1/2 mile from depot.)

## WANTED Crate Fed Chickens

Dressed

Also

Large Hens Alive or Dressed

Write for price list.

WALLER'S 702 Spadina Ave TORONTO

## STURDY CHICKS

From superior strains, free range flocks, the profitable kind that live and grow. White Wyandottes, Barred Rocks, White Leghorns, Mottled Anconas, R. I. Reds. We ship strong, healthy chicks, and guarantee safe arrival.

Write for catalogue and price list. QUEEN CITY HATCHERY Linnamora Crescent & Danforth Ave. TORONTO, ONT.

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

# The Wealth of the Farm

HOW near are you to the limit of production on your farm? Could you make more money per acre if you had extra capital? Do you need fertilizer, seed, breeding or feeding stock?

The Bank of Toronto extends to reliable farmers the means for sound development. Every banking facility and convenience provided to assist them in financing production and marketing operations.

Talk over your plans with our local Manager. His experience in financial matters may be of help to you.

THOMAS F. HOW  
General Manager

## THE BANK OF TORONTO

Capital \$5,000,000 - Reserves \$6,793,983

# Make Your Crops Pay Better



Be sure to work  
the fertilizer  
thoroughly into  
the damp soil.

## Increase The Yield Per Acre

Experience shows that the following analyses of commercial fertilizers produce larger and better yields.

### RECOMMENDATIONS:

For Corn. Four hundred to six hundred pounds per acre of Swift's Red Steer Fertilizer 2-12-1.

For Sugar Beets. Five hundred to one thousand pounds per acre of Swift's Red Steer Fertilizer 1-9-2.

For Tobacco. Seven hundred to one thousand pounds per acre of Swift's Red Steer Fertilizer 3-8-3.

For Potatoes. Five hundred to one thousand pounds per acre of Swift's Red Steer Fertilizer 3-8-3 or 2-10-2.

For Spring Grain. Two hundred to four hundred pounds Swift's Red Steer Fertilizer 2-8-2 or 2-12-0.

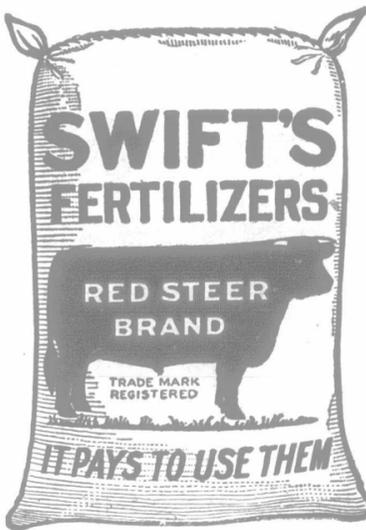
We ship in 125-lb. Bags or Carlots

WRITE TODAY FOR PRICES AND LITERATURE

**SWIFT CANADIAN CO.,**  
Limited

Fertilizer Dept. TORONTO, ONTARIO 1958 St. Clair Ave, W.

Agents wanted in unrepresented territory.



**PATENT SOLICITORS** Fetherstonhaugh & Co. The old-established firm. Patent everywhere. Head Office: Royal Bank Buildings, Toronto. Ottawa Office: 5 Elgin Street. Offices throughout Canada. Booklet free.

### FOR SALE

2 Imported Clydesdale Stallions and 1 Imported Percheron  
At one-half of other people's prices. If you want a bargain, write at once.

JAMES WILSON,

care Queen's Hotel,

LISTOWEL, ONT.

# SEEDS

	Per bush.
Alfalfa Genuine Ontario Variegated.....	\$45.00
" No. 2—No. 1 Purity (local grown).....	
Red Clover, No. 1 Govt. Standard.....	47.00
Red Clover, No. 2 Govt. Standard (local grown).....	45.00
Alsike No. 2—No. 1 Purity.....	42.00
Sweet Clover—White Blossom, No. 2.....	26.00
" " Yellow " Can. Al.....	
Alborea, No. 1 Purity.....	27.00
Timothy No. 2—No. 1 Purity.....	9.50

Situated in one of the best seed-producing districts in Ontario, and having the very best of cleaning machinery, we are in a position to offer high-grade seed, acclimatized and much superior to imported seed.

Write for catalogue—mailed free.

**Douglas & Roy**  
SEEDMEN

Box 254, Brantford, Ont.

## Builders of the Mutual

"In no one thing has the Mutual of Canada been more blessed than in having its destinies directed by men whose single-mindedness and honesty of purpose have never been excelled."—Hume Cronyn, M.P.

The exceptional ability of the builders of the Mutual is shown in the results of their work—a Company established upon an unshakable financial basis having a membership of about 70,000; assets of \$38,000,000 and assurances in force of \$170,000,000.

Among those men whose efforts helped in the building of the Mutual was the late William Hendry, who joined the company in 1870. With him were associated others of like energy and consecration who gave the Company its noble traditions which are being followed to-day.

**Mutual Life**  
of Canada  
Waterloo-Ontario



America's  
Pioneer  
Dog  
Remedies

### BOOK ON DOG DISEASES, And How to Feed

Mailed free to any address by the Author.

**H. Clay Glover Co.**  
Inc.  
118 West 51st Street,  
New York, U.S.A.

## WANTED

Reliable and capable man to canvass for subscriptions to the Farmer's Advocate and Home Magazine. A knowledge of farm conditions would be valuable, and must be able to furnish best of references. In replying state former occupations, age, and whether married or single.

Apply—  
**The William Weld Co., Ltd.**  
London, - - Ontario

## PATENTS

Canadian, Foreign.  
Booklets Free.

EGERTON R. CASE, M.C.I.P.A. (Lond.)  
10 Adelaide East : : TORONTO

"Advocate" advts. Pay.

# Carhartt Overalls



**PLOUGHING** or work requiring much muscular exertion proves the great strength of Carhartt Overalls. For one thing, in making my Carhartt Overalls, I use first-grade denim entirely. Suspender buttons are on to stay because they are riveted on reinforced bands. Suspenders are interlaced so that they cannot slip off the shoulders or separate in the wash. This is my own idea. You know what a nuisance it is picking up tools and rules when you bend over. The swing pocket stays all that. My Carhartt's are made in generous sizes, easy to put on, and have plenty of room for give and take. They have all the comfort devices you require in overalls—and the price is reasonable.

*Hamilton Carhartt*  
President

HAMILTON CARHARTT COTTON MILLS, Limited  
Toronto Montreal  
Winnipeg Vancouver  
Manufacturers of Men's Overalls and Work Gloves and Carhartt Allovers for men and boys



## Sixty-one Dollars Made \$560 Possible

Two acres of stump land—\$54 for stumping powder, fuse and caps—\$7 for a helper, and J. V. Bradley blew out 78 stumps ranging from 16 to 35 inches in diameter. This is one of many things

### C.X.L. Stumping Powder

will make possible on your farm. That \$54 worth of stumping powder gave Mr. Bradley \$40 worth of fuel, and the two acres produced a crop worth \$520. It will do the same for you. It will make your waste land profitable at the lowest cost.

There is money to be made in agricultural blasting. Ask about it to-day.

### Canadian Explosives Limited

Head Office, Montreal

Halifax Toronto Sudbury Winnipeg Vancouver

"Explosives for the Farm" tells what C.X.L. Stumping will do in your orchard. Write Dept. P for free copy to-day.



### A Sure, Hot Spark

The real joy of motoring is only possible when your car is "hitting on all four." The sure, hot spark of the "M & S" ball-pointed plug will guarantee such performance because the ball point concentrates the current and intensifies the heat.

It is the plug with the hotter spark.

The three-in-one terminal of the "M & S" plug is adapted to any style ignition, except Chevrolet; for which we supply a special model ball terminal. The Overland "4" is equipped with our No. 500 1/2-inch standard.

Dealers—The "M & S" is the popular Made-in-Canada plug. Ask your jobber for it or write us direct.

**MACHINE & STAMPING CO., LTD.**  
Commercial Dept.  
Russell Motor Car Co., Ltd.  
1209 King St. West  
Toronto, Ont. 102

"The Plug with the Hotter Spark"

**Sundrum Clydesdales** Stallions for Sale  
Two Clydesdales 4 years old, two Clydesdales 3 years old, two Hackney stallions (one 5 years old), all from imported sires and dams. Two of the Clydesdales have seven registered numbers, the other four have five registered numbers, with size and quality — inspected and passed. All are broken to harness. Will sell cheap, or exchange for other stock. For particulars, write J. A. MYLES, R.R. No. 4, Epping, Ontario Station—Thornbury.

For sale at the present time: Choice selection of Clydesdales, including stallions, fillies and mares, safe in foal. All having size and quality, and priced to sell.

W. A. McNIVEN  
Hamilton, Ont.

R.R. 4

## You Win—but you don't have to die

An advertisement to farmers in their "twenties" and "thirties"

\$5,000 or \$10,000 would come in mighty handy to you to-day, wouldn't it?

Think, then, how much more valuable it will be to you at fifty-five or sixty.

Of course, you'll say, I'll have been successful and won't need it then. But stop! You may—and if you do, you'll need it more than you do to-day.

Your producing years will be about over and ready money, or a guaranteed monthly pension, will mean all the difference between a dependent and an independent old age.

Man, there's a big idea back of Imperial Endowment insurance—one that will prove mighty interesting to you. Write today for our booklet "Penniless Old Men" which gives full particulars. A post card will bring you a free copy.

**THE IMPERIAL LIFE Assurance Company of Canada**  
HEAD OFFICE - TORONTO

Branches and Agents in all important centres





the Made possible

powder, V. Bradley 35 inches in

powder

\$54 worth of 40 worth of worth \$520. e your waste

agricultural

limited

Vancouver

Stumping will e copy to-day.



ers in ties"

a mighty

aluable it

uccessful and ay—and if do to-day.

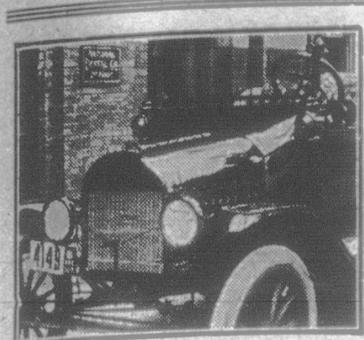
and ready, will mean t and an

Endowment interesting mniless Old st card will

LIFE Canada

NTO

nt centres



**\$17.00 Ford STREAMLINE HOOD**

COVERS THE BRASS RADIATOR FITS FORD CARS PREVIOUS TO 1917

Write for Circular Burrowes Mfg. Co., Toronto

**TOWERS WATERPROOF CLOTHING**

"Takes the Wet out of Rain" The "Twenty-Twenty" Coat (Trade Mark)

THE coat that keeps out all the water all the time. This coat is specially adapted for farmers and teamsters, made from heavy material, finished with corduroy lined collar. Fastened at an angle with solid brass rust-proof clasps. You cannot get the legs of your pants wet with this coat. On every Fish Brand label appears the simple words "Satisfaction Guaranteed" which mean that we will make good any Fish Brand garment which for any reason fails to do its full duty. Ask your dealer. TOWER CANADIAN LIMITED Toronto Halifax Vancouver Coast to Coast Service

**TOWERS FISH BRAND**

**WINDSOR DAIRY SALT**

A Clean Churn and - **Windsor Dairy Salt**

Made in Canada THE CANADIAN SALT CO LIMITED

**SHAVINGS**

Baled shavings in carload lots for immediate shipment.

**The Boake Mfg. Co., Ltd.**

Howland Ave. and C.P.R. Tracks, TORONTO

**WANTED STRAWBERRY PICKERS** for the coming season. Apply at once to: J. PICKETT, R. R. 2, FREEMAN Bronte Station

**London Shire Show.**

Better stallions might have been seen at the London Shire Show than were submitted before the judges this year, but one is certain that better mares have never before been grouped together in so many classes as they were at the show held on Tuesday and Wednesday, Feb. 24 and 25, in the old-time venue of the Shire Horse Society's annual exhibitions, the Royal Agricultural Hall at Islington. Despite the fog, it was a genuine delight to get back into the old place and into perhaps the old groove but with, as related, a far, far better display of fillies and mares now manifest than the Society has ever known. Surely that is a good sign for the breed; it means that it has not gone back in the period which has known but few exhibitions for Shire mares—the thin years of shows in 1919 and 1918.

There was something dramatic about the Royal visit on the championship day when their Majesties the King and Queen and Princess Mary walked into the Royal box, to round after round of real lusty, rustic cheering, just as the panel of judges were awarding the junior stallion championship to the King's own bred three-year-old, Field Marshal 5th, a son of Champion's Clansman, a sire whose stock did so very well at this particular show. It was hardly thought that the King's young horse would rout the senior champion stallion, F. W. Cope's seven-year-old Blaisdon Draughtsman, but he did, on the display of the day, and because the Sandringham-bred colt carries a number of potentialities in his general outline and conformation. It was another hearty cheer which greeted the Royal victory for supreme male title, but the crowd did not forget to give a most lusty cheer for the beaten horse.

His Majesty also had a filly in the running for the females championship, but her chance evaporated when the rare yearling Pendley Vanity, belonging to the Clydesdale breeder, was placed over the King's Maid Marion 2nd for the junior female cup. The senior championship was awarded to A. R. Grimes' Gleadthorpe Seclusion, and her runner-up was that great mare Halstead Royal Duchess. In her class, Gleadthorpe Seclusion, which is a bay daughter of Childwick Champion, out of Bardon May Queen, a Lockinge Forest King mare, has defeated Snelston Lady, the 2,200-guinea purchase at Pendley, and a mare with a wonderful London record, having thrice been reserve for female championship. Medlar Bella, who had won her class, and cost Mr. Buchanan 1,800 guineas at Pendley, was among those trounced in the supreme mare championship, in which the judges' fiat went to Gleadthorpe Seclusion, who had as her runner-up Halstead Royal Duchess. They were a rare lot of matrons which were lined up to contest the female honors, but the judging was sound and met with no adverse criticism. Snelston Lady's day has still to come, but when she was beaten by Gleadthorpe Seclusion in the class wherein they met, the younger mare bore the palm for greater brood mare character and a better head and neckpiece. "Seclusion" is well named. It is true she has won a few prizes in the midland counties, but she is a wonderful type to have kept in the seclusion of her owner's stud and to be sprung as a genuine surprise upon a London crowd.

And it was a large crowd which welcomed the Royal party. The gate money receipts will eclipse all records that the Shire Horse Society know of. A dozen deep, in places, on the championship day, did the farmers stand round the ring, and the five-shilling seats in the stands were full to the gangways. It only remains to be said that some of the class winners in stallions were: John Measure's Lincoln Footprint, by Marden Dagnum; R. L. Mond's Sundridge Nulli Secundus, by Babingley Nulli Secundus; Robt. Stuart's Moulton Swell, by Warton Draughtsman; E. J. Wythe's Capped Hall Menestrei, by Mimm's Champion; the Duke of Devonshire's Kingcraft 3rd, by Tatton Friar; G. R. C. Foster's Lincoln Duchess, by Ashden King; W. G. Buchanan's Medlar Bella, by Friar Tuck 4th; Sir B. Greenwell's Marden Forest Lass, by Lockinge Forest King; and John Bradley's Halstead Royal Duchess, by Lockinge Forest King. ALBION.

**Barrett MONEY SAVERS for FARM and HOME**

These Barret Products are the result of many years successful manufacturing experience. Their merit has been proved by thousands of users throughout the Dominion. They will give you big value for your money in service and sure satisfaction.

**Everlastic Liquid Roofing Cement** —for Old Roofs

Everlastic Liquid Roofing Cement will add several more years of service to your old felt or "Rubber" roof. It comes ready for use; has the consistency of thick molasses, is easy to apply, dries quickly and forms a water-tight, long-wearing covering.

Packages of all sizes, from one pint cans to forty-gallon barrels.

**Everjet Elastic Carbon Paint**

If you are to get the full value out of farm implements, metal roofs and other exposed metal, keep them from rusting away.

Everjet Carbon Paint positively prevents rust. It gives a lustrous, black, durable finish that is proof against moisture, acids and alkalis. Put up in 1, 5 and 10-Gallon Cans, 1/2 Barrels and Barrels.



**Everlastic "Rubber" Roofing** —for New Roofs

A popular-priced roll roofing of unusually high quality. Wears stubbornly under all conditions. Is now giving uniform satisfaction on thousands of farm and factory buildings in all parts of Canada.

Easy to lay and makes a staunch, durable, economical roof. Made in light (1-ply), medium (2-ply), heavy (3-ply) weights. Comes in rolls of 108 sq. ft. Nails and cement with each roll.



**Elastigum Plastic Patching Cement**

A tough, elastic, waterproof and acid-proof plastic cement for patching holes and leaks in all kinds of roofs; repairing flashings, re-lining gutters, etc. Sticks to either wet or dry surfaces and doesn't dry out like putty.

It is known as the "plastic cement of a thousand uses"—and it deserves the name. Don't be without it.

1, 5, 25 and 100-pound packages; 1/2 barrels and barrels.

**Creonoid (Fly Oil), Lice Destroyer and Cow Spray**

A wonderfully effective destroyer of flies, lice, mites and vermin of all kinds. When live stock and poultry are free from insects, horses are healthier, hogs fatten more quickly, cows give more milk and hens lay more eggs. Creonoid is cheap enough to use freely—you'll find it produces big results. Give it a trial. Comes in 1, 5 and 10-gallon cans, 1/2 barrels and barrels.



If your general store or hardware dealer can't supply you with Barrett Products, write us and we will

ST. JOHN, N. B. The Barrett Company MONTREAL TORONTO WINNIPEG VANCOUVER  
HALIFAX, N. S. Limited  
SYDNEY, N. S.



**You Can Bank on DOMINION SEEDS For the Field or Garden**

Dominion Seed Corn—Grown in Kent and Essex.  
Dominion Beet, Mangal and Canadian Gem Turnip Seeds—Perfectured in England.  
Dominion Carrot and Celery Seeds and Dominion Bulbs—Perfectured in France.  
Dominion Cabbage and Cauliflower Seeds—Perfectured in Denmark.  
Dominion Beans, Radish and Cabbage Seeds—Perfectured in Japan.  
Dominion Sweet Corn, Pea, Bean and Onion Seeds—Grown in United States.  
Dominion Shrubs and Rose Bushes—Perfectured in Holland.  
Dominion Onion and Tomato Seeds—Very fertile. Grown and perfectured at our own Glen Maple Trial Grounds, London.

Dominion Seeds Limited have grown and imported the best varieties for years. Ask your neighbor. He has likely used them and secured maximum crops.

Sow Dominion Seeds—They Yield More.

Send for our 1920 Catalogue.

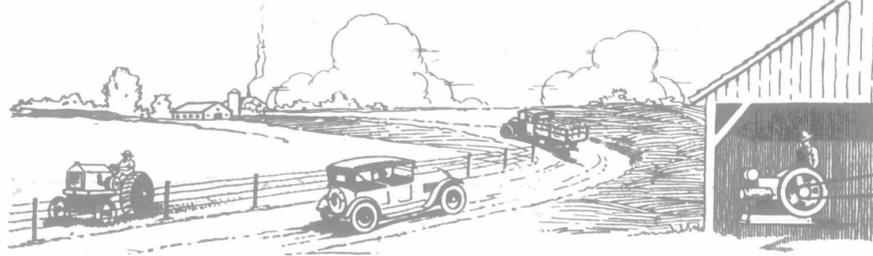
**Dominion Seeds Limited**  
119 Dundas Street London, Ontario

**Strawberry Plants**

The best strains of standard varieties: Williams' Improved, Senator Dunlap, Glen Mary, Arnout, Parsons' Beauty, Stephens' Champion, Sample, etc.; \$5 per 1,000 or \$1 per 100. Superb and Progressive, everbearing varieties, \$10 per 1,000 or \$1.50 per 100.  
WM. WALKER, Port Burwell, Ontario

**APPLE TREES at Wholesale Prices**

SEND FOR CATALOGUE. NO AGENTS.  
**The Imperial Nurseries,** Ridgeville, Ontario



## Get the motor power you pay for

When you pay for gas you pay for power—but you don't get it if your piston rings leak.

McQuay-Norris **LEAK-PROOF** Piston Rings, with their exclusive two-piece angle-to-angle construction, act equally all around the cylinder walls. That's why they stop the leakage of power. That's why you should use them. They increase power, save fuel and decrease carbon.

They are made in every size and over-size to fit every make or model of tractor, truck, passenger car or engine. Your dealer has them or can get proper sizes promptly from his jobber's complete stock.

Write for this Booklet

Which explains how to get the motor power you pay for. Address Dept.

W. H. BANFIELD & SONS, Limited  
124 Adelaide St., West, Toronto.



**To Control Excess Oil**  
A special ring for motors that pump oil. Use in top grooves of each piston. In the lower grooves use McQuay-Norris **LEAK-PROOF** Piston Rings for complete compression—power.

—the genuine



### RAISE ALL YOUR CALVES.

If you are a buttermaker or sell your cream you can still raise the very best of calves, as a ton of skim or separated milk can be made fully equal to new whole-milk for calves by adding 4 lbs. of Herbageum and there will be no trouble with scours or indigestion.

If your milk supply goes to the cheese factory or for town or city use then you must have a substitute, and the following formula will make a calf meal the equal or superior of anything on the market, and at less cost and no danger of foul seeds or of any noxious matter. Take 100 lbs. oil-cake meal, 100 lbs. feed flour, 200 lbs. wheat middlings, 1 lb. of fine salt and 4 lbs. of Herbageum. Mix thoroughly, stir about two cupsful in a gallon of scalding water and feed warm. However, it is not always easy to get the oil-cake or feed flour and sometimes difficult to get good wheat middlings. In such case instead of the various meals use 400 lbs. of ground oats and results will be in every way satisfactory and economically obtained.

It should be noted that when feeding fresh whey to pigs the addition of Herbageum makes a wonderful difference in results. Herbageum given regularly to pigs will ensure as good bacon weights at six months as at eight months without it and the pork will be firmer and sweeter.

If you do not know where to buy Herbageum write The Beaver Mill Co. Ltd., of Galt, Ont., and they will send by registered parcel post a 4 lb. package for \$1.40 to any address in Canada or will deliver freight prepaid to any railway station 50 lbs. for \$12 or 100 lbs. for \$23. In all cases cash with order. It would be an advantage also if you mentioned your nearest town or village as rural route addresses do not always indicate the nearest business point.—Advt.

### Ontario Clovers

GOVERNMENT STANDARD		Per bus.
No. 1 Red Clover		\$45.00
No. 2 "		42.00
No. 3 "		41.00
No. 1 Alsike		46.00
No. 2 "		43.00
No. 3 "		42.00
No. 1 Alfalfa (Northern grown)		37.00
White Blossom Sweet Clover, 1st quality		37.00
" " 2nd "		35.00
Unhulled White Blossom Sweet Clover		18.00
Yellow Blossom Sweet Clover, choice		34.00
No. 2 Timothy (No. 1 purity)		9.00
No. 2 "		8.75
No. 3 "		8.50

Timothy and Alsike Mixed..... 20.00  
Timothy and Red Clover Mixed..... 20.00

On all orders of \$50.00 or over we pay the freight east of Manitoba. Bags extra, at 65c. each. Terms—Cash with order. Ask for samples if necessary.

**TODD & COOK**  
Seed Merchants  
Stouffville :: Ontario

## BRUCE'S Famous Root Seeds

**Bruce's Giant Feeding Beet.** In two colors, White and Rose, a cross between Sugar Beet and Mangel, splendid croppers and unequalled for feeding, easily harvested, and keep well. ¼ lb. 25c, ½ lb. 40c, 1 lb. 75c, 5 lbs. \$3.50, postpaid.

**Bruce's Mammoth White Carrot.** Half Long Variety, heavy cropper, splendid quality, easily harvested, grand keeper. ¼ lb. 35c, ½ lb. 60c, 1 lb. \$1.00, postpaid.

**Bruce's Giant Yellow Mangel.** An intermediate variety, heavy cropper, good keeper, of splendid feeding quality and easily harvested. ¼ lb. 25c, ½ lb. 40c, 1 lb. 75c, 5 lbs. \$3.50 postpaid. Also Yellow Leviathan, Giant Yellow Globe, Golden Tankard and Mammoth Long Red Mangels at same price.

**Bruce's New Century Swede Turnip.** A grand purple top variety, splendid for the table and also for feeding cattle, a grand keeper and shipper. ¼ lb. 35c, ½ lb. 60c, 1 lb. \$1.10, 5 lbs. \$5.25, postpaid.

Also Bruce's Selected, Bruce's Giant King, Hall's Westbury, Elephant, Magnum Bonum, Kangaroo and Hartley's Swedes at ¼ lb. 35c, ½ lb. 60c, 1 lb. \$1.10, 5 lbs. \$5.25, postpaid.

Also Aberdeen's, White Globe and Greystone Turnip, at ¼ lb. 30c, ½ lb. 55c, 1 lb. \$1.00, and 5 lbs. \$4.75, postpaid.

FREE—Our valuable 128-page Catalogue of Seeds, Plants, Bulbs, Implements and Poultry Supplies. Write for it to-day.

**JOHN A. BRUCE & CO., LIMITED**  
HAMILTON Established 70 years ONTARIO

**BOYS! Have You Bank Account?** You can earn money in your spare time by becoming NEW SUBSCRIBERS to THE FARMER'S ADVOCATE AND HOME MAGAZINE. Write today for instructions.

## SIMONDS SAWS

Cross-cut, Crescent Ground, will saw 10% more timber, time and labor being equal, than any other made. This guarantee has never been challenged.

**SIMONDS CANADA SAW CO., LIMITED,**  
ST. REMI STREET AND ACORN AVENUE, MONTREAL, QUE.  
VANCOUVER, B. C. ST. JOHN, N. B. 5-28-3



Insist on getting  
**DICKINSON'S SEEDS**  
FOR BETTER CROPS

Timothy, Clover, Alfalfa,  
and other Field Seeds

If your dealer cannot supply them, write  
**THE ALBERT DICKINSON CO.**  
MINNEAPOLIS CHICAGO

### "Sh...

Don't breathe Don't was push every N You don't the ground c drives easily the hardest t it won't loos of the fence, same size as dirt around shaly. In t setting a sin in ten SHAL two-thirds t in the post i of any spac

### Sharp Point I Save Mon Time and W

the time. They c toughest work on digging post holes POINT POSTS g AB-Steel fence - better and cheaper combination of steel.

**SHARP POINT** Posts are made in and costs as follow Standard—1½x1½ ft. 4 ins. long, Heavy—1½x1½x ft. 4 ins. long, e Freight paid on 50 posts or more - prices on Farm Fences. Mail your Cash. Money of Order or Bank Dr

**A. R. LU**  
251 West Ki  
Toronto,

### The Pil Pipele HEATS YO



When the warm ai and rises naturally flected and circulary soms. The cool ai moves at the low. This circulation of register tends to e thousands of hou have been instal between that in th ter is located and noticeable. Durin winter of 1917-18 tures of seventy de bathrooms and sec

### The Hall Zryl Hesp

Wri CRO Spraying kills pe reo in

### Stallion

Two imp. Cly one imp. Bla pink of condit

Box 292 W.

For Sale—B English Spotted R ROBER Strathroy

OUR CALVES.

Maker or sell your... raise the very best... skim or separated... ally equal to new... by adding 4 lbs. of... will be no trouble... tion.

goes to the cheese... city use then you... and the following... alf meal the equal... ng on the market... no danger of foul... ous matter. Take... al, 100 lbs. feed... of Herbageum... about two cupsful... g water and feed... s not always easy... ed flour and some... d wheat middlings... the various meals... d oats and results... y satisfactory and

that when feeding... addition of Herba... perful difference in... given regularly to... od bacon weights... ht months without... rmer and sweeter... ow where to buy... he Beaver Mig... nt., and they will... rcel post a 4 lb... to any address in... r freight prepaid... 50 lbs. for \$12 or... ll cases cash with... advantage also if... nearest town or... addresses do not... est business point.

COOK

Ontario

LAWS

% more... ny other... nged.

N. B. S-28-3

EDS

PS

write

N CO. CHICAGO

"Sharp Point" Steel Posts

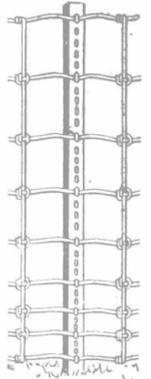
Don't break your back digging post holes. Don't waste your time replacing rotted posts every few years.

NO HOLES TO DIG

You don't need to dig a post hole, because the ground end of a SHARP POINT POST drives easily. It bites its way down through the hardest soil in less than three minutes. It won't loosen or wobble under the weight of the fence, because the hole is exactly the same size as the post. No loose, filled-in dirt around it to settle and let the post get slanty. In the time you are digging and setting a single wooden post you could put in ten SHARP POINT POSTS. On over two-thirds their length holes are punched in the post itself, close enough to take care of any spacing up to 50 ins. high.

Sharp Point Posts Save Money, Time and Work

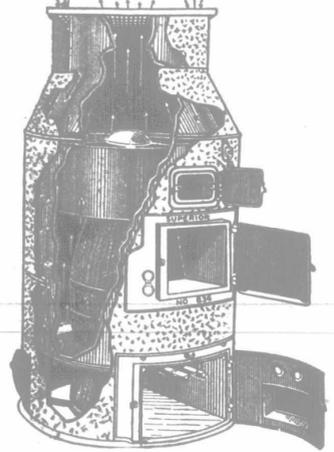
These posts cost little — if any — more than No. 1 Cedar Posts. They last at least twice as long. They can be driven in in one-tenth the time. They cut out the toughest work on the farm. SHARP POINT POSTS give you an All-Steel fence — stronger, better and cheaper than any combination of wood and steel.



SHARP POINT Steel Posts are made in two sizes, and cost as follows: Standard—1 1/2 x 1 1/2 x 7 ft. 4 ins. long, each... 59c. Heavy—1 1/2 x 1 1/2 x 3-16 x 7 ft. 4 ins. long, each... 69c. Freight paid on orders of 50 posts or more. Get my prices on Farm and Lawn Fences. Mail your order with Cash, Money or Express Order or Bank Draft to

A. R. LUNDY 251 West King St. Toronto, Ont.

The Pilot Superior Pipeless Furnace HEATS YOUR ENTIRE HOUSE



When the warm air leaves the register, it expands and rises naturally to the ceiling, where it is deflected and circulated through the doors or transoms. The cool air from all parts of the house moves at the lowest level towards the register. This circulation of air currents to and from the register tends to equalize the temperature. In the thousands of houses where the Pilot Superiors have been installed, the variation of temperature between that in the other rooms is not noticeable. During the coldest weather of the winter of 1917-18 many owners reported temperatures of seventy degrees or more in their kitchens, bathrooms and second floor back rooms.

Manufactured by The Hall Zryd Foundry Company, Limited Hespeler, Ontario Write for particulars

CROP INSURANCE

Spraying kills pests and disease. Government reports and valuable information in our free booklet.



It isn't a SPRAMOTOR unless we made it. Spramotor Co., 18 King Street, London, Can.

Stallions for Sale

Two imp. Clydes, two Canadian Clydes, one imp. Black Belcheron. All in the pink of condition and sure foal-getters.

W. L. MOSSIP St. Mary's, Ont.

For Sale—Belgian Hares, Himalayans Rabbits, White Angora Rabbits, English Spotted Rabbits, Black Siberians. ROBERT M. NICHOLSON Strathroy Ontario

Should Alfalfa be Grown Alone or in Mixture With Grasses?

(Experimental Farms Note.)

So far, alfalfa is generally grown alone. The difficulty to secure a good stand experienced in the past is to quite an extent responsible for this practice, as it has become a sort of a hammered-in rule to "give alfalfa every possible chance to establish itself." On this account it is generally deemed unwise to sow any grass with the alfalfa because it is considered that, in doing it, there may be a certain danger of the alfalfa not getting the best opportunity to gain a firm foothold. This view is undoubtedly correct in the majority of cases, especially where, on account of climatic and soil conditions, the starting of alfalfa may meet with some difficulties.

On the other hand, experience has shown that, in sections where alfalfa can be grown easily, some admixture of certain grasses may give excellent results. In Western Canada mixtures of alfalfa and Western Rye grass yield excellent crops providing that the mixtures are so balanced that the alfalfa and the Western Rye are given equal chances to establish themselves. In Eastern Canada several grasses have been tried in mixture with alfalfa, and the results so far obtained certainly seem to indicate that such mixtures may profitably be grown, providing that the right varieties of grasses are chosen.

When choosing the grasses to be used in mixture with alfalfa, it should be kept in mind, in the first place, that such grasses as are apt to choke out the alfalfa on account of their inclination to spread out must be avoided, and, secondly, that only those which are early are of any particular value. Timothy, for instance, which reaches full development comparatively slowly is rather unsatisfactory in mixture with alfalfa. When the latter is ready to cut for hay, the timothy is hardly more than half-ready the consequence of course being that the full benefit of it is not being realized. To defer the cutting of the mixture until the timothy is at its best, can of course, not be recommended for, by doing so, a poorer quality of hay will be secured as far as the alfalfa is concerned. It will also check the prompt development of the second crop.

The grasses which go best with alfalfa are those which are ready to be cut at the same time as the alfalfa. There are three grasses of this type that deserve to be mentioned, viz.—Tall oat grass, orchard grass and meadow fescue.

The tall oat grass is comparatively susceptible to cold winters and should therefore not be used in districts where the winters are severe. Where it can be grown without losses on account of winter-killing, however, it goes excellently with alfalfa.

The orchard grass is especially well adapted to well drained soil and, on such land, it may to great advantage be used in mixture with alfalfa. Its nutritive qualities are excellent and, besides, it has the reputation of being one of the best weed checking grasses known.

The meadow fescue which is universally recognized as one of the most valuable grasses, especially for dairy cows, has the advantage over both orchard and tall oat grass in that it is hardier. It may, therefore, be used with alfalfa in districts where the former grasses may suffer from lack of winter hardiness. It also comes on quicker after cutting, contributes more to the bulk of the second hay crop, provides more pasture, in case the field should be used for that purpose, and yields better results on land which is somewhat wet on account of imperfect drainage. On the whole, the meadow fescue may be universally recommended in mixture with alfalfa. Dom. Arostologist. M. O. MALTE.

Material for Wall.

How much cement will it take for a wall 100 feet long, 8 feet high and 1 foot thick? Is a one-foot wall strong enough for a barn, and would it be advisable to use small stones in the concrete? J. C.

Ans.—It will require approximately 30 cubic yards of gravel and 25 barrels of cement. A one-foot wall should be heavy enough, and small stones may be used, provided they do not come near the surface.

Make Driving Safer —more enjoyable

There's comfortable security in knowing that you can depend on your brakes.

There's an enjoyable pride in brakes that grip without "a chatter."

Improve your car by having Lion Brake-Linings installed. These superior linings are treated by a new Canadian frictioning process, which gives them longer wear, resists "rubbing smooth" and grips evenly without chattering.

Your Garage man can supply you.

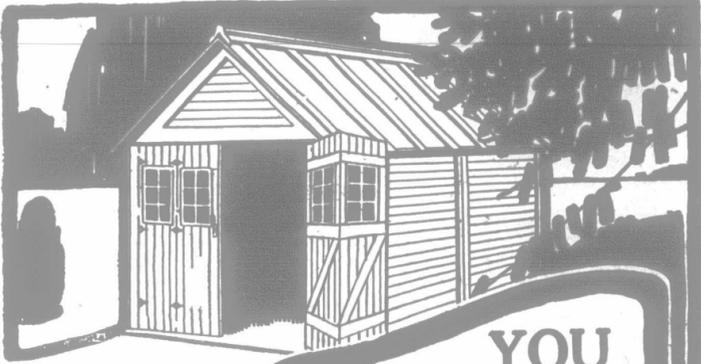
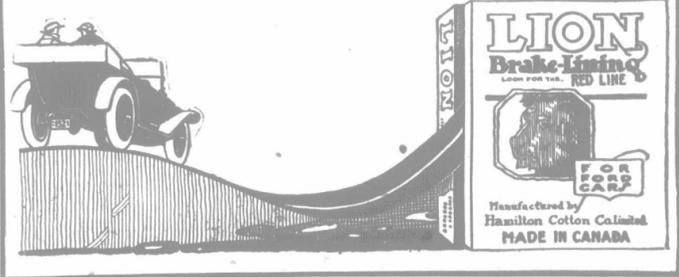
Hamilton Cotton Co., Limited, Hamilton, Ont.

At all Dealers and Garages

LION Brake-Linings for FORD CARS

MADE IN CANADA

Look for the RED LINE



YOU can have a fine garage at small cost

Choose a Garage worthy of your car—one, too, that will be a credit to your residence. Investigate PRESTON PORTABLE GARAGES. They are sturdy, well-made buildings of fine appearance. They come to you in sections all ready to fit together—anyone can put them up—anyone can take them down. Note the special features such as double "fold" doors.

For Folder write to

PRESTON PORTABLE GARAGES

THE M S AND S CO LIMITED METAL SHINGLE AND SIDING COMPANY ASSOCIATED WITH THE A B ORMSBY CO. PRESTON - MONTREAL - TORONTO WINNIPEG - SASKATOON - CALGARY

When writing advertisers please mention "Advocate."

## The La Fayette Stock Farm Company of Canada, Limited

### PERCHERONS AND BELGIANS—The Popular Breeds

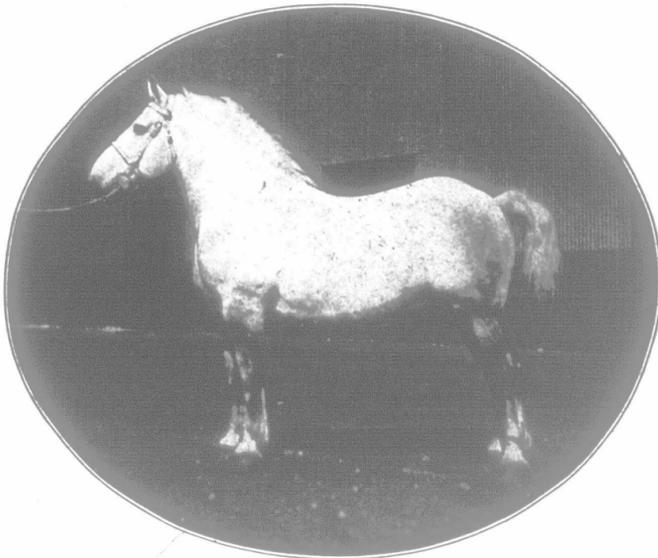
Get ready now to breed the right kind of big draft horses—the market demands them.

Mares and geldings weighing 1,650 pounds and up are selling for more money to-day than ever before.

We have the stallions that will produce the right kind from your mares—and our registered Percheron mares will give you good service in harness, and raise for you the kind of colts that you can always find a profitable market for.

The day of the light drafter is past—breed big horses of good quality. They always sell readily.

All our horses have been Government inspected, and we guarantee our stallions to be satisfactory sure breeders; if they are not you do not have to keep them.



One of Our Percheron Stallions.

Our last importation arrived Friday, April 2nd, and consisted of Percheron mares and stallions—greys and blacks—running in age from 4 to 7 years. The mares weigh from 1,750 to 2,000 lbs., the stallions weighing from 1,900 to 2,200 lbs. The mares are all in foal, and will produce the real kind, as they are bred to No. 1 sires.

Now is the time to raise big horses of good quality. We have the class of sires and mares that will produce what the market demands.

We sell on time to responsible parties—come and see us—we will give you good guarantee and treat you right.

Come soon, and get first choice of our new importation.

INSPECTION WELCOMED.

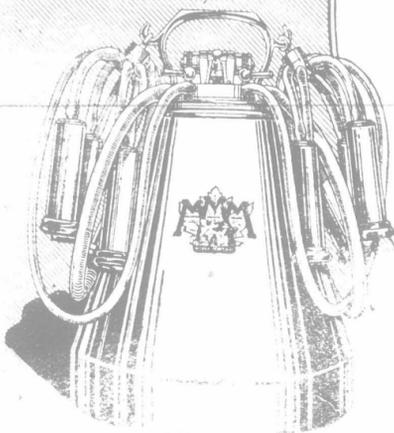
CORRESPONDENCE SOLICITED.

**G. R. CROUCH,** Vice-President La Fayette Stock Farm Company of Canada, Limited **LONDON, CANADA**

*The Company is composed of J. Crouch, President; G. R. Crouch, Vice-President and Treasures; R. G. Ivey, Secretary; Directors, Wm. Bernard and Jas. McCartney*

## Judge The Macartney Milker On These Four Points

1. **SIMPLICITY**
2. **DURABILITY**
3. **SANITATION**
4. **PRICE**



**SIMPLE** There is no mystifying complicated machinery about the Macartney Machine Milker. In developing the Macartney we always bore in mind the extreme value of simplicity. That is why every Macartney Milker is simple to understand, simple to operate, with a simple "fool-proof" pulsator having only 3 working parts.

**DURABLE** Just because the Macartney Machine Milker is well built, simple and efficient, it gives dependable, satisfactory service, day after day, month after month and year after year. The Macartney requires the smallest upkeep cost because the rubber inflations outlive all others.

**SANITARY** None of the contamination invited by the old-fashioned milk pail is possible with the Macartney Milker. Closed air-tight during milking, it prevents stable odors, flies and dirt from coming in contact with the milk. It is easy to clean—sanitary in every way.

**PRICE** The Macartney is not the most expensive milking machine—neither is it the cheapest. But because it is the best, because it saves two-thirds of the expense of milking, because it milks nature's own way, because it increases milk production, the cost of the Macartney Milker is a paying investment that will produce a dollar's worth of satisfaction for every cent of the purchase price.

—WRITE FOR FULL INFORMATION—

Fill in and mail this coupon and complete information will be sent you by return mail. You need not be hurried on an immediate purchase but the full facts will surely interest you. And you won't obligate yourself in the least.

THE  
**Macartney Milking Machine Co.**  
LIMITED  
316 Catherine St., Ottawa



THE COUPON  
The Macartney  
Milking Machine Co., Ltd.  
Ottawa.

Gentlemen:

Please send me full particulars of the Macartney Milking Machine.

NAME.....

ADDRESS.....

Dept. "B" I have.....Cows A-3

Free

It keeps  
carry the  
full strength

Free

For over  
High Grade  
brands for

Order

Raw material  
fertilizing  
Fertilizer

Mail the  
use of  
izers.

W.A.

Hamilton

When writing

# PEERLESS PERFECTION



**A Road Side Fence That Beautifies The Country Side**

Pioneer make-shift fences must bring discredit to any farming community. Do your share toward making your neighborhood attractive.

## Peerless-Perfection Fencing for All Purposes

There is scarcely a fence requirement that we cannot fill directly from our stock, no matter whether it be farm, poultry or ornamental fencing. We carry the largest stock of fencing and gates carried by any one company in the Dominion.

### Every Rod Fully Guaranteed

PEERLESS Fencing is well known for its non-rusting qualities. Many of our customers have testified to this fact. Examine any piece of PEERLESS Fence in your neighborhood. Compare it with fences of any other make. You will find little or no rust on the PEERLESS. The longer you can protect a fence from rust just that much longer will it continue to stand up and do business. Send for our literature and learn about this high grade fence. Address either office and it will be promptly sent.



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

1880 1920

Oldest Manufacturers of Commercial Fertilizers in Canada

## Freeman's 2-8-2 General Crops

### Ensures Greatest Profits

It keeps soil up to high production point. Guaranteed to carry the proper percentage of plant food in available form—full strength of analysis and strength in fertilizing power.

## Freeman's High-Grade Fertilizers For All Crops In All Soils

For over 40 years farmers have been relying on Freeman's High Grade Fertilizers to produce best results. Different brands for different crops.

### Order Now To Ensure Prompt Delivery

Raw materials are scarce. Be sure of your supply for spring fertilizing—order now. Remember: Freeman's High Grade Fertilizers go farthest in increasing your profits from the soil.

Mail the coupon now for complete information regarding the use of commercial fertilizers.

**W. A. Freeman Co. Limited**  
Hamilton :: Ontario

W. A. Freeman Co. Ltd., Hamilton, Ont.  
 Please give me details regarding the use of commercial fertilizers.  
 Nature of soil.....  
 High or low land.....  
 Crops wanted.....  
 Name.....  
 Address.....

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

## Questions and Answers. Miscellaneous.

### Poland China Hogs.

Do you know of any breeders of Poland China hogs? R. S.

Ans.—Yes, there are several breeders in Ontario. We might mention George Gould, of Essex and Cecil Stobbs, of Leamington.

### Strawberries.

1. When is the right time to uncover strawberries, and when is the right time to plant?

2. What is a cure for spavin? A. R.

Ans.—1. Strawberries should not be uncovered until the danger from frost is past. On the other hand, they must not be left covered too long, as there is danger of them smothering. Strawberries may be set out as soon as the soil warms up.

2. For spavin, apply a blister of 2 drams each of biniodide of mercury and cantharides, mixed with 2 ounces of vaseline. Repeat in two weeks.

### Paying for a Ditch.

A owns a farm and brings on an engineer about a ditch, who informs A as to the proportion of the cost which he has to pay. Before the contract of the ditch is let, A sells the farm to B but does not mention anything about the ditch. A year after B has the farm the contract of the ditch is let and another amount levied on the farm.

Ans.—The question would indicate that A was billed for a certain expense entailed in bringing on the engineer, and should pay that amount. It states that the ditch was not commenced until a year after B had the place. After taking possession, B should meet the expense of constructing the ditch.

### Clydesdale Horses—Concrete for Wall.

1. What is the breeding and numbers of the Clydesdale horse, Scottish Chief?

2. How many yards of gravel and barrels of cement will it take for a basement, 45 by 58 by 9 feet, with a 10-inch wall, mixed in the proportion of one to six. How much will it take for a floor 6 inches thick, mixed in the same proportion? A. S.

Ans.—1. As there are six Scottish Chiefs recorded up to Volume 18 of the Clydesdale Stud Book, we do not know which particular horse you have reference to. They are: No. 3257, sired by Burns; No. 4882, sired by Adjutant; No. 5056, by Scottish Burke; No. 5493, by Mont-rave Carbineer; No. 8993, by Scottish Fancy.

2. It will require approximately 38 cubic yards of gravel, and, mixing in the proportion of one to six, about 42 barrels of cement. For the floor, it will require approximately 56 cubic yards of gravel and 62 barrels of cement.

### Miscellaneous.

1. What is it worth per week to feed and care for a sow after farrowing, when fed shorts and skim-milk?

2. What is it worth per month to winter two-year-old steers on straw and roots?

3. Why do horses bit each other's necks and rub themselves? I have treated them for lice, but it makes no difference.

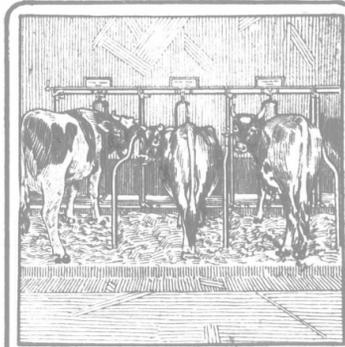
4. What is a cure for crippled pigs? They do not eat very much. J. J. S.

Ans.—1. It depends considerably upon the size of the sow and the size of litter. Skim-milk is worth about 80 cents per cwt., and shorts are worth \$3 per cwt. Something would have to be counted for labor. The sow would eat a bag of shorts in a week, and would no doubt take a large quantity of skim-milk if obtainable.

2. It depends on the amount of roots fed. It is rather difficult to estimate the cost. Feeding a half bushel of roots per day, the roots alone would be worth over \$3 per month. We doubt if a person could feed under \$6 per month.

3. If they are not troubled with lice, it is possible they are affected with eczema. Wash the horses with some disinfectant. This will aid in curing the eczema and will also destroy the lice.

4. Getting the pigs out in the sunshine will do as much good as anything. Do not feed too heavily on grain. Try them on roots, with a little shorts and finely-ground oats mixed with skim-milk.



1. BT Steel Stalls keep the flanks and udders of the cows clean. Cows are lined up so that the droppings fall in the gutter. The cow has all the freedom necessary for her comfort, but is tied so that she cannot dung on the cattle stand.



2. If cows are tied with chains in double stalls they can move forward and sideways. The cattle stands are always dirty. When the cows lie down of course they get dirty too. That means that you must clean them off carefully before milking, or else get dirty, unsanitary milk.



3. Babies, children and invalids depend upon milk for their lives. It must be clean. Cities and Dairy Companies are becoming very particular about its cleanliness and purity. Clean, sanitary cow stalls are absolutely essential if milk is to be clean. The coupon below will bring further proof. Send for it to-day.

Send this coupon for the 352-page Barn Book. Tells how to plan and build the barn, how to ventilate, how to frame, how to save steps, labor, time and feed. This book saves you hundreds of dollars in building. It is free.

**BEATTY BROS. LIMITED**  
K486 Hill St., Fergus, Ont.

I intend to build about.....  
 I intend to remodel about.....  
 I keep.....Cows  
 My name is.....  
 My Post Office is.....  
 R. R. No.....Prov.....  
 Nearest Railway Station.....  
 If you live in Maritime Provinces, please give Lot and Concession. If you live in Western Provinces, please give Section, Township and Range.....

# RENNIE'S CALF MEAL

GIVES THE BEST RESULTS OBTAINABLE

Obtain from Your Dealer or write to  
**THE WILLIAM RENNIE COMPANY LIMITED**  
 King and Market Streets, Toronto

## This furnace saves coal

**T**HE furnace man who suggests you install a Hecla is recommending to you the most economical furnace built

But you will save many times the extra cost—in comfort, satisfaction, and fuel.

Figure it in coal bills alone. The patented Hecla firepot saves one ton of coal in seven! It has ribs of steel that treble the heating surface—gives more heat with less fuel.

This we have proved by careful test. And thousands of Hecla owners are enthusiastic about this coal-saving feature which they are proving every day

Ask any of them what they save with the Hecla!

Just as welcome as this surprising economy of fuel is the wonderful satisfaction the Hecla gives.

The joints of the smoke chamber are fused. They are practically one-piece. Certainly they can never separate or work loose. We guarantee that—for the lifetime of the furnace.

For this reason your home will never know the annoyance of gas

or dust from the Hecla. It is a "clean" furnace. No matter how old it is you will never complain of gas—or dust.

Our booklets explain these patented features. They tell everything about warm air heating that you will want to know before you invest in a heating system. They explain why the Hecla is a *healthful* heating system—why the air in every room contains a proper degree of moisture. They show why the Hecla owner never worries about his heating system—why this furnace is easy to tend, easy to shake down, easy to control, easy to clean.

Write for this booklet. At the same time send a rough floor plan of your home. Our heating engineers will submit a plan and estimate for a heating system guaranteed to make it comfortably warm. This service is free for the asking. No obligation, of course.

**CLARE BROS. & CO.**

Limited  
 PRESTON, ONTARIO.  
 Winnipeg Saskatoon Calgary  
 Edmonton Vancouver

## HECLA MELLOW AIR FURNACE



FOR COAL OR WOOD

### Questions and Answers. Miscellaneous.

#### Crop of Savory.

I intend to grow a savory crop this summer and would like some information on the culture of the same. A. B.

Ans.—"Vegetable Gardening," by Watt gives the following on the culture of savory: "There are two kinds of savory, Summer (*Satureia hortensis*) and Winter (*Satureia montana*). The former is an annual; the latter a hardy perennial. Both species are grown for their leaves, which when fresh and green are used for seasoning. They may be started from seed sown under glass or in the open ground. The plants should stand 6 to 12 inches apart in the row with sufficient space between rows to use the wheel hoe or horse cultivator. When dried, the leaves and tender stem-tips are used for culinary purposes during the winter."

#### Ownership of Trees—Taking Sand.

A man owns a farm which runs to the lake shore, but a road has always been across the farm about twelve rods from waters' edge. This strip of land between road and lake has never been fenced but trees have been planted by former owners nearly 50 years ago and more trees by present owners during this last 12 or 15 years.

1. Who owns the trees?
2. Have other persons any right to take sand or gravel from lake shore of this farm? If so how far back from waters' edge can they claim this right?
3. Explain law known as "Mariners Rights."

Ontario. Z. Y. X.

- Ans.—1. The owners of the land.  
 2. No.  
 3. It would occupy too much space to deal with it here, and we can only suggest that you turn to some good encyclopaedia for the desired information.

#### Will—Heirship.

A certain man dies leaving a will by which his widow is to have the use of the farm as long as she lives, then it is to go to their only child—a son. Shortly after the father's death the boy dies too.

1. Could the widow break the will before it was probated and claim her share, the will having been drawn up legally?
2. To whom will the property go at her death?
3. If she could break the will what would then be done with property?
4. If she has a sale of farm stock and implements is she entitled to all the proceeds?
5. Can the mother's side of the family claim anything? G. A. C.

- Ans.—1. No.  
 2. To her heirs unless she makes a will—in which case it would go to her devisees under such will.  
 3. It would make, practically, no difference, she being her son's heir. We are assuming, of course, that he died unmarried and intestate.  
 4. Yes.  
 5. No.

#### Miscellaneous.

1. What is a cure for cold sores?
2. What is the method of skinning muskrats?
3. What is a good remedy for destroying lice on horses?
4. One of my cows is scoured. I feed her clover hay and silage. What would you advise?
5. Are beans a fattening feed for hogs? I boil them. U. M.

Ans.—1. You might use vaseline, mentholatum or camphorated ice with beneficial results.

2. In our issue of January 20, page 179, there is an article on trapping muskrats, and on page 180 is an article entitled "Profitable Trapping," which gives the methods of removing the skins. No doubt you will have this issue on file.

3. At this time of year the horses may be washed with some disinfectant, to which has been added a little kerosene and soap. This will destroy the lice. Equal parts of sulphur and hellebore may be dusted into the hair with good results.

4. Evidently the digestive system has become slightly deranged. Feed carefully for a time and try reducing the amount of silage. Giving a little lime-water will sometimes correct the trouble.

5. Beans are a very good feed for hogs when boiled.

1. If your ... could ... again? ... shows BT G ... Pens in the ... Hospital in ... was burned ... the pens were ...

APRIL 8, 1920



**Two Ways to Lower Power Cost**

There are two ways of cutting power costs in tractor operation. One is to get full use from every ounce of power your fuel contains. The other—to lower your power requirements.

Imperial Polarine does both. It provides a gas-tight piston-to-cylinder seal that keeps all the power behind the pistons. Burns up without leaving a heavy, gritty carbon deposit to channel the cylinder walls. Keeps the piston rings snug-fitting and power-tight.

Imperial Polarine lowers your power requirements by lessening the friction load. It keeps a cushioning oil film between all moving parts—eliminates grinding friction—keeps the motor smooth-running, quiet and powerful.

In three grades—Imperial Polarine (light medium body), Imperial Polarine Heavy (medium heavy body), Imperial Polarine A (extra heavy body). For transmission or differential lubrication use Imperial Polarine Oils and Greases.

Get greater service from your car or truck—by using the grade of Imperial Polarine recommended by the Imperial Polarine Chart of Recommendations. Complete lubrication for every farm machine is provided for by the line of Imperial Farm Lubricants.

Sold by reliable dealers everywhere in one and four gallon sealed cans, half-barrels and barrels, also in 12½ gallon steel drums.

Let the Imperial Oil man help you solve your lubrication problems.

**IMPERIAL POLARINE**  
**IMPERIAL POLARINE HEAVY**  
**IMPERIAL POLARINE A**

**IMPERIAL OIL LIMITED**

Power · Heat · Light · Lubrication  
Branches in all Cities

**Horse Owners! Use**



**GOMBAULT'S Caustic Balsam**

A Safe, Speedy, and Positive Cure  
The safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scar or Blemish. Every bottle sold is warranted to give satisfaction. Price \$1.75 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars.  
The Lawrence-Williams Co., Toronto, Ont.

**ABSORBINE**  
TRADE MARK REG. U.S. PAT. OFF.

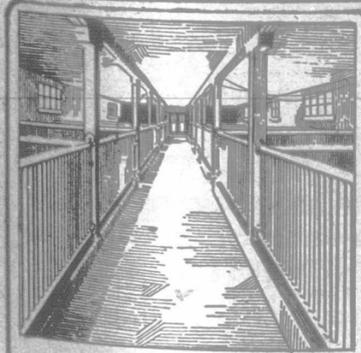
Reduces Strained, Puffy Ankles, Lymphangitis, Poll Evil, Fistula, Boils, Swellings; Stops Lameness and allays pain. Heals Sores, Cuts, Bruises, Boot Chafes. It is a SAFE ANTISEPTIC AND GERMICIDE. Does not blister or remove the hair and horse can be worked. Pleasant to use. \$2.50 a bottle, delivered. Describe your case for special instructions and Book 5 R free. ABSORBINE, JR., antiseptic liniment for mankind, reduces Strains, Painful, Knotted, Swollen, Veins. Concentrated—only a few drops required at an application. Price \$1.25 per bottle at dealers or delivered.  
W. F. YOUNG, Inc., 258 Lyman's Bldg., Montreal, Can.

**FARMERS! Order now if you want a set of "Cooke" Steel Wagon Wheels**

Owing to the great scarcity of raw materials our factory will be able to fill only a limited number of orders this season. FIRST COME, FIRST SERVED. OUR WHEELS ARE MADE TO FIT ANY SIZE AXLE OR SKEIN. Satisfied customers in all parts of Canada cheerfully testify as to their labor-saving qualities and durability. They make a new wagon out of an old one at small cost. Write today for price list, illustrated circular and testimonials, together with order blank and free chart showing how to take measurements correctly. Remember we quote price delivered to your nearest railroad station.  
THE COOKE METAL WHEEL COMPANY,  
19 West Street Orillia, Ontario

**A BETTER SEPARATOR—THE VIKING**

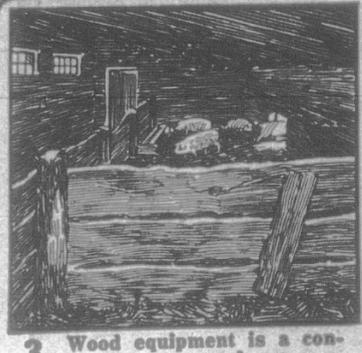
**BECAUSE—**  
Over One Million In Use  
The construction of the vital separating parts is superior to higher-priced separators.  
No separator at any price possesses finer or more wear-resisting steel.  
The Viking contains nothing but the finest Swedish steel and heavy, durable castings.  
It rests solidly, thus prevents vibration. Because of its easy-running qualities a child can run it.  
It does more and better work than any other machine of equal capacity rating. Guaranteed to skim perfectly clean.  
Write Dept. S.  
SWEDISH SEPARATOR COMPANY  
422 Power Bldgs., MONTREAL



1. If your hog barn caught fire, could you use the pens again? The drawing above shows BT Galvanized Steel Hog Pens in the barn of the Ontario Hospital in London. This barn was burned to the ground, but the pens were used again.



2. Of course this saved the owners a big loss. Besides, BT Galvanized Steel Hog Pens are durable under ordinary wear and tear. There is nothing to rot; nothing to wear out; no planks to pull loose; no repairing to do.

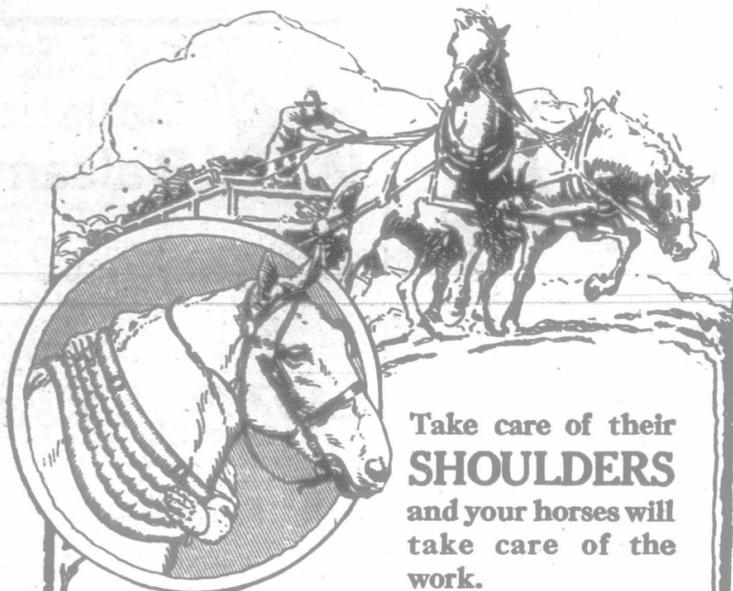


3. Wood equipment is a constant worry and expense. Lumber is dear and carpenters scarce. Wood pens are not durable and in a few years must be renewed. You can save money by putting in Steel Hog Pens. Send the coupon for details.

Send this coupon for our 352-page Barn Book. Tells how to plan, build, frame and ventilate the Hog Barn. How to save time, labor and feed in caring for the hogs. It will save you hundreds of dollars and is free.

**Beatty Bros. Limited**  
K495 Hill St., Fergus, Ont.

I am building hog barn about .....  
I am remodeling hog pens about .....  
I keep ..... Hogs  
My name is .....  
My Post Office is .....  
R.R. No. .... Prov. ....  
Nearest Railway Station .....  
If you live in Maritime Provinces, please give Lot and Concession. If you live in Western Provinces, please give Section, Township and Range.



Take care of their **SHOULDERS** and your horses will take care of the work.

Just now your horses' shoulders are plump and tender. But they will not *remains* that way. In the softened condition common to horses' necks in the Spring, heavy work will surely create neck hollows. And it's then the collar will slip and chafe, producing the troublesome gall sores—unless you prevent it from slipping and chafing by cushioning your horses' shoulders with

**TAPATCO**  
REGISTERED TRADE MARK  
**BRAND**  
**COLLAR PADS**

They are infinitely superior to unstuffed pads—they are soft, pliable, cushion-like and absorbent. They fit snugly under the collar and adjust themselves quickly to the size of the neck.

They absolutely prevent galled, bruised and chafed shoulders. They make possible the continued use of a collar long after its worn condition would otherwise mean throwing it away.

For economy's sake, then—as well as for humane reasons—equip your horses with Tapatco Pads. An exclusive feature is the Tapatco Hook Attachment—a wire staple reinforced by felt washer (Patented in U.S. December 1, 1914—Patented in Canada April 6, 1915). This Staple reinforcement grips hook to body of Pad even after the cover is weakened by sweat and long use—thus lengthening the life of the Pad.

THE AMERICAN PAD AND TEXTILE COMPANY, Chatham, Ontario  
"38 years making pads."

USE  
**METAL SHINGLES**  
for SAFETY  
and PERMANENCE

Save the surface and you save all—Paint & Varnish.

**RAMSAY'S PAINT AND VARNISH**

Time-tried and honest products that have withstood all tests and proven their superiority for 78 years.  
"The right Paint and Varnish to Paint and Varnish right."

**A. RAMSAY & SON COMPANY**  
Makers of Paint and Varnish since 1842

Toronto MONTREAL Vancouver

WHEREVER the eye falls on a beautiful field of tasseled corn—bright prospects for some one! Such a field of corn may belong to you. If the stand is regular and heavy it is just the kind that grows where an

**International Corn Planter**

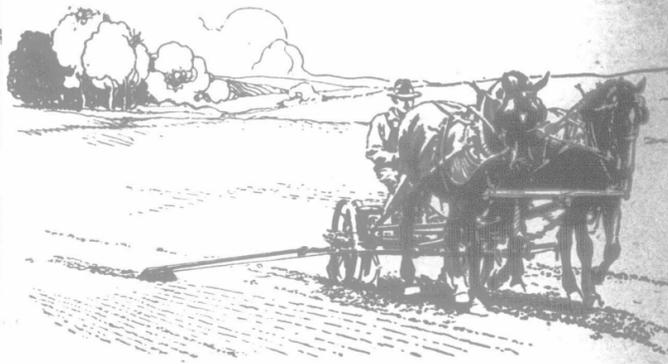
has been at work earlier in the season. Bright prospects go hand in hand with these planters because—

The variable drop clutch will deposit 2, 3, or 4 kernels to the hill, as desired, and it works with a high degree of accuracy. Correct planting is an essential to good crops.

The tongue is adjustable to height of team. This, together with the quick action check spring, results in an evenly checked field that can be cross cultivated without digging up any of the hills. Insures healthy and even stand of corn.

A foot drop lever is provided for planting head rows or dropping hills without wire. Makes a nicely completed, full field when used the first way and enables you to make use of every foot of ground in "patchy" fields.

If you are interested in bright corn prospects it will pay you to scribble your name and address along the margin of this advertisement and mail to us so that we can send you an illustrated pamphlet telling all about INTERNATIONAL CORN PLANTERS. Later—see the International agent.



**INTERNATIONAL HARVESTER COMPANY**  
OF CANADA LTD.  
HAMILTON CANADA

WESTERN BRANCHES—BRANDON, WINNIPEG, MAN., CALGARY, EDMONTON, LETHBRIDGE, ALTA.  
ESTEVAN, N. BAYLEIGH, REGINA, SASKATOON, YORKTON, SASK.  
EASTERN BRANCHES—HAMILTON, LONDON, OTTAWA, ONT., MONTREAL, QUEBEC, QUE., ST. JOHN N.B.

**IMPERIAL HARNESS**

IMPERIAL BRAND HARNESS is guaranteed free from all defects in workmanship and materials. You are certain of satisfaction when you buy a set of harness made by Trees & Company.

No. 640, Team Harness, is especially designed for farm work such as ploughing, seeding and general hauling. Exceptionally good value at a very low price. Blind Bridles with side check; lines one inch; high top hames; traces, steel chain, leather covered; pads with hook and terrets; backstrap with trace carriers riveted on top. White metal or japanned mounts, less collars. **\$57.00**

Sold by the Harness Trade throughout the Dominion. If your dealer will not get Imperial Harness for you, write direct to us for Catalogue and prices.

**SAMUEL TREES & CO., LIMITED.** Established 1866.  
Manufacturers of Harness and Dealers in Automobile Accessories.  
42 WELLINGTON ST. EAST, TORONTO

**LARKIN FARMS, QUEENSTON, ONT.**  
ABERDEEN - ANGUS CATTLE, SHROPSHIRE and  
SOUTHDOWN SHEEP  
CORRESPONDENCE and INSPECTION INVITED  
(Mention Farmer's Advocate)

**Shorthorn Herd** Sires Selling Quick—I have several young bulls left that must go out quick. All are of serviceable age—three are by Gainford King, a grandson of Gainford Marquis (imp.), and two others are Nonpareils. One of these is got by the same sire that sired the \$3,100 junior champion heifer, sold in the Dryden-Miller sale. Write quick if you want them.

GEO. E. MORDEN, Oakville, Ontario

112 P...  
"Will...  
teague...  
Heaves...  
does of...  
will cut...  
results...

Our rec...  
Capi...  
was out...  
It was...  
good in...  
caused...  
FREE...  
ping...  
heaves...  
750 C...

R...  
IB...  
There...  
had the...  
Spa...  
to remo...  
ound...  
to use...  
cure. W...  
Spavin...  
of a rei...  
for a liv...

Ninety...  
with sp...  
ishes...  
Make a...  
book...  
F...  
75 C...

Abe...  
The pres...  
some clas...  
selves and...  
Angus, wri...

G. C...  
P.O. a...

Messrs...  
Halse...  
E...  
of...  
Send for an...  
can do...  
or l...

Abe...  
Do not mis...  
choice male...  
quality an...  
GEO. DAY...  
Herd sire a...  
bull of Can...

Abe...  
Alonzo...  
Manage...  
ALL...  
STO...  
Angu...  
Choice...  
ROBT. M...  
Spring...  
I will price...  
fifteen m...  
years...  
broc...  
lo...

Fergus G.T...  
Belwood C...  
ABERI...

We...  
Jno. Unde...  
Sunny Si...  
Sunny Si...  
(imp.), Ch...  
For sale...  
MRS. M...  
R.R. No...  
Bair...  
Nine extr...  
fem...  
THOS. B...

**Sure Cure for HEAVES**

112 Portland St., Dartmouth, N.S., Nov. 29, 1919  
 "Will you please send F. W. Cooper, Montague, Halifax Co., N.S., a sample of your Heaves Cure. He has a horse with a slight dose of Heaves and I know your remedy will cure him as I have used it with good results when I was in the horse business."  
 C. G. NORTON.

Our records show that a trial package of **Capital Heaves Remedy** was sent Mr. Norton, on July 28, 1917, and it was this trial package that made him a good friend of Capital Heaves Remedy and caused him to write the above letter.

**FREE** We send a full week's trial free for 5c to cover postage and wrapping. If you have a horse that coughs or heaves write **Veterinary Supply House, 750 Cooper Street, Ottawa, Ont.**

**Ring-Bone**

There is no case so old or bad that we will not guarantee

**Fleming's Spavin and Ringbone Paste**

to remove the lameness and make the horse go sound. Money refunded if it ever fails. Easy to use and one to three 45-minute applications cure. Works just as well on bluebone and Bone Spavin. Before ordering or buying any kind of a remedy for any kind of a blemish, write for a free copy of

**Fleming's Vest Pocket Veterinary Adviser**

Ninety-six pages of veterinary information, with special attention to the treatment of blemishes. Durable bound, indexed and illustrated. Make a right beginning by sending for this book.

**FLEMING BROS., Chemists**  
 75 Church St. Toronto, Ont.

**SUNNY ACRES**

**Aberdeen - Angus**

The present string of young bulls for sale includes some classy herd bull prospects, winners themselves and sired by champions. If interested in Angus, write your wants. Visitors welcome.

**G. C. CHANNON, Oakwood, Ontario**  
 P.O. and phone. Railway connections: Lindsay, C.P.R. and G.T.R.

**Messrs. A. J. Hickman & Co.**

**Halse Grange, Brackley, England**

Exporters of all Breeds of Pedigree Live Stock

Send for an illustrated catalogue and see what we can do for you. Whether you want show or breeding stock, buy direct from England and save money.

**GLENGORE**

**Aberdeen-Angus**

Do not miss the opportunity to secure some of the choice males and females of wonderful smoothness, quality and strain type that are being offered by **GEO. DAVIS & SONS, R. R. 1, Erin, Ontario**

Herd sire a son of Black Abbot, Champion Angus bull of Canada. Write for particulars.

**Aberdeen - Angus**

**Meadowdale Farm**

Forest, Ontario

**Alonzo Mathews, Manager** **H. Fraleigh, Proprietor**

**ALLOWAY LODGE STOCK FARM**

Angus, Southdowns, Collies

Choice bred heifers. Bulls 8 to 15 months. Southdown ewes in lamb.

**ROBT. McEWEN, R. 4, London, Ont.**

**Springfield Farm Angus**

I will price for quick sale: 5 bulls from twelve to fifteen months old; 6 heifers from one to two years old; also my herd bull, Middlebrook Prince 5th 11155. Come and look these over, or write at once.

**KENNETH C. QUARRIE**  
 Fergus G.T.R. R. No. 5, Belwood, Ontario  
 Belwood C.P.R. Phone, Fergus 141 ring 24

**ABERDEEN-ANGUS CATTLE**

CLYDESDALE HORSES.

We offer good young stock for sale.

**Jno. Underwood & Son, Grafton, Ontario**

**Sunny Side Herefords**—Herd headed by Brummel's Chance (Imp.), Champion at London and Guelph, 1919. For sale: Three bulls, 10 to 15 months old. **MRS. M. H. O'NEIL & SONS, Denfield, Ont.** R.R. No. 4. Phone Ilderton.

**Balmiede Aberdeen-Angus**

Nine extra good young bulls for sale. Also females all ages. Show-ring quality.

**THOS. B. BROADFOOT, FERGUS, ONT.**

**Questions and Answers. Miscellaneous.**

**Owner of Hayfork.**

A buys farm from B. At time of purchase the car, hay fork, rope and pulleys were hanging in their proper places. None of these were mentioned in the writings. To whom do they belong?

Ans.—As they were not mentioned in the writings, B can rightfully remove them.

**Tenancy.**

Where a tenant has a place rented for an indefinite period say from year to year without a lease (being unable to get one from landlord) and all rent and taxes paid up to date can a landlord put tenant off same without six months written notice.

F. J. Ontario.

Ans.—It being a yearly tenancy, half a year's notice ending with a year of the tenancy is requisite in order to put an end to it.

**Poultry and Bee-Keeping.**

What are the prospects for a man to make a living in poultry raising and bee-keeping?

S. C. B.

Ans.—If a person has a liking for this line of work and has a knowledge of poultry raising and bee-keeping, good returns may be obtained. The two branches go very well together. A good many men have made a financial success of these two lines of farming. "Principles and Practices of Poultry Culture," by Robinson, and "A. B. C. of Bee Culture," by Root, are two very good books on these subjects.

**Faulty Fire Extinguisher.**

An agent calls on a farmer with a fire extinguisher painted up in such a way as to make it appear otherwise than it really is. The farmer buys it giving note in payment and soon after finds out that agent has misrepresented article and that said article will not last as agent claimed. What redress if any has the purchaser? Can he be compelled to pay the note after due?

L. B.

Ans.—It is not at all likely that the purchaser is legally in a position to resist successfully an action on the note; and he would also find it difficult, if not impossible, to recover damages for the misrepresentation.

**Raspberries.**

I wish to plant a piece of land to raspberries. What would be the net returns from an acre? What varieties would you recommend to plant? How far apart should they be planted?

T. P. W.

Ans.—The Cuthbert raspberry is the choice in many localities. It is a heavy yielder and has a good quality. The Marlboro is also a favorite, and has the advantage of being a week or ten days earlier than the Cuthbert. As a rule it does a little better than the Cuthbert on heavy soil. Plants are set out about 3 feet apart in the row, with rows 6 feet apart. The net value depends on the season and on the cost of operation. From 125 to 150 crates are generally considered a fairly good yield.

**Septic Tank.**

What is the best way to make a septic tank for a private family, and what materials are required?

J. A. D.

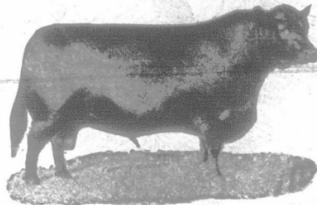
Ans.—At one time it was thought essential to use an automatic valve in the septic tank, but of late years this has not been in common use. It is customary to build the tank in two sections, the first section about 4 by 5 feet in dimensions and 4 feet high, and the second compartment about 2 feet wide. This is large enough for the average family. The material is siphoned from the larger tank into the smaller one, and from there runs to a drainage system. The tank may be built of concrete and 4-inch walls are thick enough. A cement cover may also be put on. A person should use about one part of cement to six parts gravel for building the wall. Some use a single tank about 4 feet square. The drain from the house enters near the top and the outlet commences about 2 feet from the bottom. This leaves the feet from the bottom of the tank. It may be necessary to clean this out at intervals.

**New York Aberdeen Angus Sale**

ALBANY, N.Y., April 20, 1920

35 FEMALES 45 HEAD 10 BULLS

Show Bulls  
Show Cows  
Show Herds  
Farmer's Cattle  
Cows with calves  
at foot and re-bred



Breeding cattle of the highest order and choicest blood lines.

Everything tested and sold subject to 60 day re-test.

SALE HELD IN TROOP B ARMORY ON NEW SCOTLAND AVE.

Dr. K. J. Seulke, representative of the American Aberdeen-Angus Ass'n will care for your mail bids and assist you at the sale.

COL. G. W. BAXTER, Auctioneer  
For catalog address; DR. K. J. SEULKE, ITHACA, N.Y.

**Gardiner's Calf Meal**

Equally valuable for Colts, Calves and Lambs

When calves are weaned, they require a carefully prepared food to replace the mother's milk.

Gardiner's Calf Meal, rich in protein and fat, gives the necessary nourishment if used first with skim-milk, then milk and water, and finally with water alone.

The calves develop quickly. The young steers are ready for market sooner, while the breeding calves mature earlier. It makes strong, vigorous animals, and saves time and money for the farmer.

Gardiner's Calf Meal put up in 25, 50 and 100-lb. tins. Order from your dealer or write for more particulars to

GARDINER BROS., Feed Specialists, SARNIA, Ont.



**GRAND RIVER DUAL-PURPOSE SHORTHORNS**

Herd headed by Prince Lavender 104440—dam gave 16,596 lbs. milk as 4-year-old Present offering: 5 good young bulls. Some good bull calves coming on—dams now running in R.O.P. A few females to spare.

HUGH A. SCOTT, CALEDONIA, ONT.

**Spruce Glen Shorthorns**—When in want of Shorthorns visit our herd. We have 80 head to select from—Minas, Fames, Florances, Emlys, Red Roses and Edgars—good milkers; a few heifers for sale; also several young bulls of breeding age, thick, level, mellow fellows and bred just right.

JAMES McPHERSON & SONS, Dundalk, Ont.

**Newcastle Herd of Shorthorns and Tamworths for sale**—Several young bulls ready for service; several heifers bred to Primrose Duke = 10754 =, and several young things of nice quality and breeding. Two young cows with heifer calves at foot, all of a good milking strain. A choice lot of Tamworths of both sex, and various ages, from noted prize-winning stock. Pair of registered Clydesdale fillies rising 3.

Long distance phone. A. A. COLWILL, R.R. No. 2, Newcastle, Ont.

**DUAL-PURPOSE SHORTHORNS**

Herd headed by Dominator 106224, whose two nearest dams average 12,112 pounds of milk in a year. Inspection of herd solicited.

WELLDWOOD FARM, Farmer's Advocate, London, Ont.

**WALNUT GROVE SCOTCH SHORTHORNS**

We are offering choice young males and females from the best Scotch families and sired by Gainford Eclipse and Trout Creek Wonder Ind. If wanting something real good, write, or come and see us.

DUNCAN BROWN & SONS, Sheddin, Ont., P.M., M.C.R.

**Fairview Clydesdale Champions**—We have at present several mares that have been champion winners at Toronto, Guelph, London and Ottawa. Look up our past winnings and call on us if you want something choice. We also have Shorthorn bulls and females of show individuality.

ROBERT DUFF & SON, Myrtle, Ontario

**Irvin Scotch Shorthorns**—Herd Sire, Marquis Supreme, by Gainford Marquis (Imp). We have at present three young bulls of serviceable age and one younger, all sired by our herd sire and from Scotch-bred dams. Good individuals and the best of pedigrees. Also pricing a few females.

J. WATT & SON, Elora, Ontario

**Glengow Shorthorns and Clydesdales**—Recently advertised bulls have all been sold. Have eight nice 2-year-old heifers by Prince Sultan = 100339 =, and all bred to a Golden Drop bull; also several others somewhat younger. A real good yearling stallion, and mares all ages, in foal, will be priced right.

WM. SMITH, Columbus, Ont. Stations: Oshawa, C.N.R.; Myrtle, C.P.R.; Brooklin, G.T.R.

**Shorthorn Females—Shorthorn Bulls**—We are now offering a number of choice heifers good families and good individuals. Many are well forward in calf to our Roan Lady-bred sire, Meadow Lawn Laird. We also have bulls ready for service. Prices right. Satisfaction guaranteed.

J. K. CAMPBELL & SONS, Palmerston, Ontario

**BLAIRGOWRIE SHORTHORNS**

3 Imported bulls. 10 Imported females in calf or calf by side. 2 Scotch bred bulls. 5 Scotch bred cows with calves by side.

JNO. MILLER (Myrtle C.P.R. and G.T.R.) ASHBURN, ONT.

**20 Bulls—SPRUCE LAWN—100 Females**—Clydesdales, Shorthorns, Yorkshires. Herd headed by Imported Golden Challenger 122384. A Rubyhill bred by Earl of Northbrook, by Ascott Challenger, bred by L. De Rothchild. Special bargains in farmer's bulls. Cows and heifers in calf, yearling and heifer calves. Yorkshires either sex. J. L. and T. W. McCamus, Cavan, C. P. R., Milbrook, G. T. R. and P. O., Ontario.

Made in Canada

# Floglaze

"The Finish that Endures"

Economical and Handy  
on the  
FARM

**Protect Your Implements**  
Rust, decay and deterioration send farm implements to the junk heap unnecessarily. A coat of Floglaze each year keeps them efficient and in working order. Farm implements cost money nowadays. Floglaze saves money by keeping them in working order, and does away with the necessity of buying new implements.

**Renews Farm Implements, Buggies and Automobiles**  
Buggies, wagons, implements, automobiles, and tractors can be kept in good appearance when re-finished with Floglaze. Easy to apply. One or two coats will do the work. Dries over night, giving a hard, glossy, coach-like finish that wears with unusual endurance.

**Floglaze for the Dairy**  
Floglaze is the surest and best way of keeping the dairy neat, clean and sanitary. Floglaze is waterproof. Use it on the floors, walls and dairy utensils. There are a thousand and one places and occasions where Floglaze can be used in the up-keep of the farm.

Save the Surface and you save all

## Floglaze

Complete Floglaze Color Card sent on request. Let us also tell you about Floglaze for other purposes.

**IMPERIAL VARNISH & COLOR CO.**  
WINNIPEG TORONTO VANCOUVER  
CANADA

Our booklet, "How to Finish and Refinish with Floglaze" will be sent on request made through your dealer or direct to us.

## Burnbrae Shorthorns

Eighty-three years without change we have been breeding Scotch Shorthorns. The foundations of many of the best herds in America were laid from our farms.

I am in a position to furnish you now with the BEST in FORM and in BREEDING that can be found any place. Twenty-five young bulls, from small calves to fifteen months old. Sixty-three cows and heifers, every one of them bred right, not a plain looking one in the lot. Every animal that I have sold in two years has been satisfactory; the most of them sold by letter. I can satisfy you with the best in what you want at a price that will give you a chance, and I will pay the freight to your station. A Grand Champion and the son of a Grand Champion at head of the herd.

Post Office, Telegraph, Telephone and Station is Stouffville, Ont.

ROBERT MILLER :: Stouffville, Ont.

A NEW IMPORTATION OF

## FORTY SCOTCH SHORTHORNS

arrived home Dec. 17th. From our herd of 125 head we can offer a large selection in choicely-bred bulls and females. Anyone in need of foundation stock may find it to their advantage to look over our offering before making any purchases.

J. A. & H. M. PETTIT, Freman, Ontario  
Burlington Jct., G.T.R., only half mile from farm.

**Pear Lawn Shorthorns, Hackneys and Yorkshires**—One imported in dam Miss Secret bull, 12 months, imp. sire and dam; one Golden Rose bull, 6 months, imp. sire and dam; one bull, a Flattery, 12 months, imp. sire. A few young cows with calves at foot. One imported Hackney stallion, A 1; two Hackney stallions rising one year; one registered Clyde mare; also Yorkshires at weaning time. HERBERT J. MILLER, Keene P.O., Ont. Stations—Keene G.T.R., Indian River C.P.R. Peterborough County.

**Spring Valley Shorthorns**—Herd headed by Sea Gem's Pride 96365. We have a number of good bulls for sale, including the Champion Ivanhoe 122760, and his full brother also, an extra well bred Rosewood, and others. Write for particulars. Telephone and telegraph by Ayr. KYLE BROS., Drumbo, Ont.

**Imported Scotch Shorthorns** For Sale—three imported bulls, one yearling one two-year-old and one three-year-old herd sire, also a choice two-year-old Orange Blossom of our own breeding and three well bred bull calves about year old. Would consider exchanging an imported bull for Scotch females. R. M. MITCHELL, R. R. No. 1, FREEMAN, ONT.

## PLASTER HILL STOCK FARM

The Home of Dual-Purpose Shorthorns

I have now a large number of cows running in the Record of Performance, and have a few bull calves for sale from these. Can also spare a limited number of females. Herd sires:—Green Leaf Record 96115 and Commodore 130056. The two nearest dams of the latter average 12,112 lbs.

ROSS MARTINDALE Caledonia, Ont.

## The Salem Herd of Scotch Shorthorns

HERD HEADED BY GAINFORD MARQUIS, CANADA'S PREMIER SIRE

Write us about the get of Gainford Marquis. They have won more at Toronto and other large exhibitions than those of any other sire. We still have a few sons to offer, as well as females bred to Canada's greatest sire.

J. A. WATT, Elora, Ontario

## Braeburn Scotch Shorthorns

150 Head 100 Breeding Females

Herd Headed by Nero of Cluny (Imp.)

I have at present twelve young bulls that are now nearing serviceable age. The majority are sired by my present imported herd sire, and we guarantee them as good individually as the get of any other one sire in Canada. They are nearly all roans, and are priced to sell. Can also spare some breeding cows in calf to Nero of Cluny (Imp.).

Brantford 7 miles. Oakland 1 mile. L.E.N. Electric R.R. Cars every hour. CHARLES MCINTYRE, Scotland, Ontario

**Young Shorthorn Bulls** I am offering for immediate sale two grand young bulls, bred right and good individuals—one (white) 12 months old, sired by Browndale Winner—106817—= 124385—, dam Nonpariel of Sylvan 3rd = 86811—, by Spicy Count (Imp.). These animals are worth securing. Write today. A. W. BARRETT, R. R. No. 5, Parkhill, Ontario

## MR. SACKVILLE, OF THE O. A. C., GUELPH

when in Millbrook at the short course, on February 11th, said "he did not think he ever had his hands on a cow that handled just as good as Lulu Pauline." She made 23 lbs. butter as a junior 4-year-old, and her prospects indicate possibly 30 lbs. when she freshens in May. Her 10 months old calf handles equally well. Don't miss this fellow if you want quality. Price \$300. Also baby bulls for sale, all sired by Hill-Crest Ratward Van.

W. FRED. FALLIS R.R. 3, Millbrook, Ontario

## Cream Wanted

Ship your cream to us. We pay all express charges. We supply cans. We remit daily. We guarantee highest market price.

ONTARIO CREAMERIES Limited LONDON ONTARIO

## Maple Shade SHORTHORNS

A dozen young bulls imported and my own breeding at moderate prices.

W. A. DRYDEN Brooklin - - - Ontario

## SCOTCH-TOPPED SHORTHORNS

Three young bulls (red), for sale, thick set fellows; also 6 thick heifers, 2 years old, bred to a Scotch Clementina bull. These will be priced right. Come and see or address—

HENRY FISCHER Bell Phone R. No. 2, Mitchell, Ont.

## Buy Glenfoyle Shorthorns

9 bulls, all ages; 25 heifers and cows. Herd bull 2,400-pound quality kind, which sire's dam and three nearest dam's milk records average over 9,000 pounds; also high-class yearling Clyde stallion. Come and see them.

Stewart M. Graham - Lindsay, Ont.

## Mardella Dual-Purpose Shorthorns

8 choice young bulls; 30 females, cows and heifers. All of good size, type and breeding. Herd headed by The Duke; dam gave 13,599 lbs. milk, 474 lb. butter-fat. He is one of the greatest living combinations of beef, milk and Shorthorn character. All priced to sell. Write, call or phone. THOMAS GRAHAM, Port Perry, R.R. 1, Ont.

**Evergreen Hill Farm—R.O.P. Shorthorns** Present offering: Two 12-month bulls by the R.O.P. bull St. Clare = 84578 =, also a few heifers and heifer calves.

S. W. JACKSON, Woodstock, Ont.

APRIL 8, 1911

Questions

A renter and to days after notice the rent next or must A pays his Ans.—7

Carrying

1. At carry fire- 2. Wh person ma 3. How school? Ans.—1 2. Four eighteen consent. stances th of a perso 3. Bro years of enforced.

I have scratches. that the fo is prescrib ginger. F Fowler's s for a weel times dai lead and 1 pint of w arsenic gi 14 parts? Ans.—1 given goo given as or especially faces, it is the legs fo

1. Can from the making m soldiers, getting th 2. Car roads, an for the to 3. Wh vote on t they vot council gi Macadam to pay fo 4. Wh spector, c 5. Th been bro sponible for the c made wh money? 6. Sho the mone Que. Ans.— can borro and for latter to 2. It have his of the m for same, objection agent for does it wi that the with the 3. As upon to way than that such resisted- 4. Th tor, app or pay a 5. I can escap of road-r that mer commissi responsi 6. It to show, municipa been use mendable

APRIL 8, 1920

Questions and Answers.  
Miscellaneous.

Monthly Tenant.

A rented house of B by the month and to pay the rent monthly. Eleven days after A had paid his rent B sent a notice that he wanted an increase of rent next rent day. Does that stand good or must he give a full month's notice? A pays his rent a month in advance.  
Ans.—The latter is right.

Carrying Fire-arms—Marriage—School Age.

1. At what age may a man legally carry fire-arms?  
2. What is the legal age at which a person may marry in Ontario?  
3. How long does a boy have to go to school?  
READER.

Ans.—1. Sixteen.  
2. Fourteen or over, but not under eighteen without parent or guardian's consent. In certain exceptional circumstances there may be a lawful marriage of a person under fourteen.  
3. Broadly speaking, until he is 18 years of age, but this is not generally enforced.

Scratches.

I have a horse that is very bad with scratches. I noticed in a recent issue that the following treatment for scratches is prescribed: 8 drams aloes and 2 drams ginger. Follow up with 1½ ounces Fowler's solution of arsenic twice daily for a week, then dress the fetlocks three times daily with 1 ounce of acetate of lead and 1 ounce of sulphate of zinc to a pint of water. Are the 1½ ounces of arsenic given at a dose, or divided into 14 parts?  
E. S.

Ans.—The prescription mentioned has given good results. The 1½ ounces are given as one dose. In bad cases of scratches, especially where there are raw surfaces, it is sometimes advisable to poultice the legs for a couple of days.

Miscellaneous.

1. Can the council borrow money from the bank to pay freight on road-making machinery, give a ball to returned soldiers, and tax the people without getting their consent?

2. Can the Mayor's team work on the roads, and can he get plows and pipes for the town?

3. When the ratepayers are called to vote on the kind of a road to build and they vote for a gravel road and the council gives a contract for a water-bound Macadam, can the ratepayers be obliged to pay for it?

4. When the council appoints an inspector, can they force him to act?

5. The road-making machinery has been broken; are the ratepayers responsible for the cost of repairs and also for the cost of the road that has been made when they were not asked for the money?

6. Should our tax receipts state what the money has been used for?  
Que. J. O.

Ans.—1. I would say that the council can borrow from the bank to pay freight and for entertainment purposes,—the latter to a limited extent.

2. It is irregular for the Mayor to have his own team working on the roads of the municipality, if he makes a charge for same, but we do not see any serious objection to his acting as a purchasing agent for the municipality, providing he does it without charging. The point being that the Mayor ought not to contract with the municipality.

3. As for the ratepayers being called upon to pay for a different kind of road-way than what they voted for, it is possible that such taxation might be successfully resisted.

4. The council can compel an inspector, appointed by them, to act as such or pay a penalty.

5. I do not see that the ratepayers can escape paying for the cost of repairs of road-making machinery; nor do I see that members of the council or school commissioners can be held pecuniarily responsible for mistakes honestly made.

6. It is becoming usual for tax receipts to show, on the back of same, what the municipal money raised by the taxes has been used for, and it is certainly a commendable practice.

QUICK ACCELERATION

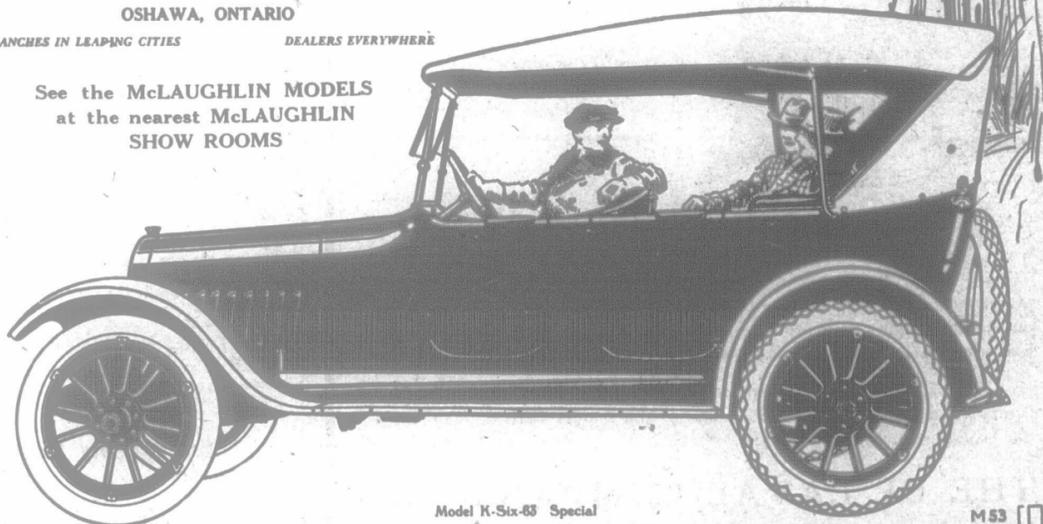
THE New McLaughlin Light Six is alert to every whim of the driver. It responds instantaneously. For speed, power on hills, quick acceleration and ease of control, the New Light Six is unrivalled.

The New McLaughlin Light Six is powered with the famous 44-horse power McLaughlin Light Six overhead valve motor. Owners report from 20 to 30 miles per gallon and from 8 to 12 thousand miles on tires.

McLAUGHLIN MOTOR CAR CO. Limited  
OSHAWA, ONTARIO

BRANCHES IN LEADING CITIES DEALERS EVERYWHERE

See the McLAUGHLIN MODELS at the nearest McLAUGHLIN SHOW ROOMS



Model K-Six-65 Special

M53

The McLAUGHLIN LIGHT SIX

Shorthorn Bulls at Maple Hall—These five young bulls, from 5 to 18 months, are some of the best animals we ever raised—a roan Crimson Flower show bull calf (5 mos.); an extra good Duchess of Gloster (15 mos.); a red Crimson Flower (16 mos.), from a great milking family and a right good bull; a red Butterfly (10 mos.), a show bull; also a red Shepherd Rosemary (8 mos.). It will pay anyone looking for Shorthorn bulls to see these animals.  
Claremont C.P.R. Greenburn C.N.R.  
D. BIRRELL, & SON, Claremont, Ont.  
Pickering G.T.R.

Shorthorns—Males and females for sale—We are offering our herd sire, King Dora (imp.) 107291 = (137372), and a number of young cows with calves at foot by the above sire; also some young bulls and heifers.  
Clyde mare, Lady Kinloch (imp.) 12248 in foal.  
SOCKETT BROS., Rockwood, Ont.  
Phone 22 ring 3.

1846—MAPLE LODGE STOCK FARM—1920  
We are now offering one roan bull, 14 months, "Prince Strathallan," a good individual and very nicely bred. Lucan Crossing, G. T. R., one mile east.  
MISS CHARLOTTE SMITH, Clandeboye, Ont.

Scotch Shorthorn Bulls and Females—I have a nice offering of Scotch-bred females and one or two young bulls still on hand. The pedigrees are choice, the individuality is good—and the prices are right. If you want one Shorthorn female or a carload, come to Markdale.  
THOS. MERCER, Markdale, Ont.

Cedar Dale Scotch Shorthorns—Pleasing Cattle and Pleasing Pedigrees—Senior Sire, Excel-sior by Gainford Marquis (imp.). Junior sire, Matchless Duke by Gainford Matchless, the \$12,000 son of Gainford Marquis (imp.). I have a number of choice bred heifers, and must sell a few to make room. Also have a couple of Scotch-bred bulls. Prices right at all times.  
FRED. J. CURRY, Markdale, Ont.

Shorthorn Bulls and Females—Herd headed by Ruby Marquis, a son of the great Gainford Marquis (imp.). Our calves now coming are all by this sire. We are also offering a few females in calf to him. Get our prices before buying elsewhere.  
PRITCHARD BROS., - R. R. No. 1, - ELORA, ONT.

SHORTHORNS—CLYDESDALES  
Just one bull left, 9 months old; sire, Lochiel (imp.); dam on the R.O.P. Pure Scotch. Stallion colt, sired by Baron's Stamp. Fillies rising 2, 3, 4 and 5-year-old. Come, see, and be satisfied.  
Brooklin G.T.R. and C.N.R. Myrtle C.P.R.  
WM. D. DYER, COLUMBUS, ONTARIO

PUSLINCH PLAINS SHORTHORNS  
Five bulls for sale by Burnbrae Sultan =80325 =.  
A. G. AULD, - - - R. R. 2, - - - GUELPH, ONT.

DUAL-PURPOSE SHORTHORNS

Present offering: Six young bulls, Reds and Roans, also a number of females. They have size, quality and breeding from good milking dams. Prices moderate. Satisfaction guaranteed.  
CHAS. GRAHAM - Port Perry, Ontario.

Scotch Shorthorn Females WANTED

Any ages, must be good individuals—not particular as to being specially fitted. Would also purchase a few young Scotch-topped females. State age and full description.  
ADDRESS BOX 96  
Farmer's Advocate, London, Ontario

Scotch Shorthorns—Herd headed by Master Marquis =123326 =, by Gainford Marquis. Stock of either sex for sale. Also Oxford Down ewes.  
GEO. D. FLETCHER, Erin, R.R. 1, Ont.

Dual-Purpose Shorthorns—Herd sire, Darlington Major Maude =101212 =, by Darlington Major =91279 = (imp.); dam Lady Maude =104585 = (imp.). For sale, 6 bulls, ages 6 to 13 months. R. H. & W. S. SCOTT, Box 231, Tillsonburg, Ont.

SPRUCE LODGE STOCK FARM  
Shorthorns and Leicesters For Sale  
Two choice young bulls, 6 and 11 months old, also one and two-year-old heifers, all got by Roan Chief Imp. =60865 =.  
W. A. DOUGLAS, Caledonia, - Ontario

LABELS  
Live-stock Labels for cattle, sheep and hogs. Manufactured by the Ketchum Manufacturing Co., Ltd., Box 501 Ottawa, Ont. Write for samples and prices.

FOUNDED 1866  
Wanted  
cream to us. We express charges. We rely cans. We guarantee market price.  
CREAMERIES Limited ONTARIO  
Shade THORNS  
young bulls and my own at moderate  
DRYDEN Ontario  
CH-TOPPED THORNS  
(red), for sale, thick supple heifers, 2 years old, bred to bull. These will be priced low or address—  
Y FISCHER  
R. No. 2, Mitchell, Ont.  
Shorthorns  
25 heifers and cows. Sound quality kind, which are nearest dam's milk age over 9,000 pounds; class yearling Clyde come and see them.  
ham - Lindsay, Ont.  
Purpose Shorthorns  
30 females, cows and heifers, and breeding. Herd headed by 13,599 lb. milk, 474 lbs. of the greatest living com- milk and Shorthorn character. Write, call or phone.  
M. Port Perry, R.R. 1, Ont.  
R.O.P. Shorthorns  
12-month bulls by the R.O.P. =84578 =, also a few and heifer calves.  
Woodstock, Ont.  
FARM  
Shorthorns  
ance, and have a few bull ber of females.  
the two nearest dams of the  
Caledonia, Ont.  
Shorthorns  
PREMIER SIRE  
ve won more  
ny other  
well  
Elora, Ontario  
Shorthorns  
Breeding Females  
e. The majority are sired individually as the get of any sell. Can also spare some  
E. Scotland, Ontario  
ery hour.  
ate sale two grand young d individuals—one (white) owndale Winner =106217 =, is, sire Brownale Standard (imp.). These animals are No. 5, Parkhill, Ontario  
C., GUELPH  
d "he did not good as Lulu and her pros- 10 months if you want by Hill-Crest  
Millbrook, Ontario

Order Early Your 1920

# DE LAVAL CREAM SEPARATOR

Farmers in need of a new De Laval Cream Separator this year may wisely place their orders immediately if they have not already done so.



For three years past, notwithstanding the constantly increased production, it has not been possible to make nearly enough De Laval machines to meet the demand. We shall make 25,000 more machines in 1920 than in any prior year, but are already behind deliveries in some sizes. Hence the importance of getting in your order early.

Superior as De Laval Cream Separators have always been to other separators, they are better still in 1920.

If you have milk to separate you can't afford to waste quantity or quality of products, time and convenience, through the use of any other means of separating than a De Laval machine.

An improved De Laval Separator will surely save its cost

in a few months, and will go on doing so every few months for many years.

De Laval Separators speak for themselves. Their appearance and performance best demonstrate their superiority. Be sure you see and try one before buying any other or deciding to go on using an inferior or half-worn-out separator another year.

Your De Laval local agent will be glad to afford you the opportunity to do this. If you don't know him simply address the nearest De Laval main office, as below.

**THE DE LAVAL COMPANY, Ltd.**

MONTREAL PETERBORO WINNIPEG EDMONTON VANCOUVER

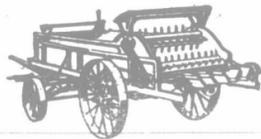
50,000 Branches and Local Agencies the World over

## Spreads Wide, Fast and Evenly

AND No lumps. This is the ONLY Spreader having our special distributor. If perchance lumps should happen to get through the double cylinders,



**Tudhope-Anderson  
MANURE SPREADER**



this patented distributor makes assurance doubly sure. The result is even and wide spreading that cannot be approached by any other machine. And note this: No other spreader has adjustable windshield protecting driver from wind-blown manure. Every ounce of material in this spreader is a surety of year-after-year, thorough efficient service (up-to-date). Get the whole story by writing for booklet right away.

**Tudhope-Anderson Co., Limited**  
ORILLIA ONTARIO

Western Distributing Houses: Winnipeg, Regina, Saskatoon, Calgary, Edmonton.  
Eastern Distributing Houses: London, Ont.; Smiths Falls, Ont.; J. Clarke & Son, Ltd., Fredericton, N.B.; Lounsbury Co., Ltd., New Castle, N.B.

## NORTHERN ONTARIO

A vast new land of opportunity is now open for settlement to returned soldiers and sailors. The Government is offering 18 years and over, 59 cents per acre. Thousands of farmers have already taken up all of this fertile country, and are being made comfortable and happy right at the door of Old Ontario, a home awaits you. For full particulars as to land, regulations, and settlers' rates, write

**H. A. MACDONELL,** Director of Colonization, PARLIAMENT BUILDINGS, OTTAWA.  
**EDWIN MANNING DOHERTY,** Minister of Agriculture, PARLIAMENT BUILDINGS, OTTAWA.

## Hamilton House Holstein Herd Sires

Our highest record bull for sale at present is a 4 months' calf from Lulu Darkness, 30.33 lbs., and sired by a son of Lulu Keyes, 36.56 lbs. His two nearest dams, therefore, average 33.44 lbs., and both have over 100 lbs. of milk per day. We have several older bulls by the same sire and from two and three-year-old heifers with records up to 27.24 lbs. All are priced to sell.

**D. B. TRACY, Hamilton House, Cobourg, Ontario**

## Hospital for the Insane, Hamilton, Ont.

**HOLSTEIN BULLS, ONLY, FOR SALE**

Senior sire is from one of the best sons of King Segis Alcartra Spofford. Junior is grandson of the noted May Echo Sylvia, by Champion Echo Sylvia Pontiac.

Write to the Superintendent for prices, etc.

## HOLSTEIN HERD AVERAGES 18,812 LBS. MILK

A herd of 13 pure-bred Holsteins last year averaged 18,812 lbs. milk and 638.57 lbs. fat. Do you realize the money there is in such cows? It is estimated that the average annual yield of all cows in this country is under 4,000 lbs. These 13 cows produce as much milk as 62 cows of the 4,000-lb. class.

Why feed, milk and shelter any more cows than you need to produce the milk you require? If interested in **HOLSTEIN CATTLE** send for booklets—they contain much valuable information.

**HOLSTEIN-FRIESIAN ASSOCIATION OF CANADA**  
W. A. CLEMONS, Secretary, ST. GEORGE, ONT.

## MONTROSE HOLSTEIN - FRIESIAN FARMS

(The Home of 20,000-lb. Cows)

Present offering (at right prices), four young bulls out of R.O.P. cows with records of 20,000 lbs. milk and over. See this herd and our young bulls in particular before buying elsewhere. Visitors always welcome.

**R. J. GRAHAM, - Montrose House Farms - BELLEVILLE, ONTARIO**

## Raymondale Holstein-Friesians

A herd sire of our breeding will improve your herd. We have sons of our present sire, Pontiac Korndyke of Het Loo (sire of \$12,750 Het Loo Pieterje), and also sons of our former sire, Avondale Pontiac Echo. Several of these are of serviceable age, and all are from good record dams. Quality considered, our prices are lower than anywhere else on the continent. Their youngsters should not remain long. Write to-day.

**RAYMONDALE FARM, Vaudreuil, Que. D. RAYMOND, Owner, Queen's Hotel, Montreal**

**Cloverlea Dairy Farms** Herd headed by King Pontiac Rauwerd who combines the blood of Canada's greatest sires and dams. His offspring are a choice lot. We have stock for sale, both male and female, 75 head to choose from. Consult us before buying elsewhere. Could book a few more cows for service to "King."  
**GRIESBACH BROS., - L.-D. 'phone - Collingwood, Ont.**

## Summer Hill Holsteins

—We have the best bunch of Holstein bulls ever offered at our farm. Their dams have records up to over 30 lbs. of butter in 7 days. All are sired by a bull with a 34-lb. dam. One is a full brother to the Grand Champion bull at Toronto this year. Prices reasonable.

**D. C. FLATT & SON, R.R. No. 2, Hamilton, Ont.**

**High-Testing Holsteins**—Present offering: Three young bulls, 10 months old; all splendid individuals, out of high-producing dams, backed by noted blood and big records. Our herd sire, Ormsby Jane Hengerveld King (by Ormsby Jane King), has been used on this herd for several seasons, and his get, both heifers and bulls, are exceptionally promising individuals. It will pay you to inspect these youngsters before buying.  
**L. C. SNOWDEN, R.R. 3, Bowmanville, Ont.**

## Evergreen Stock Farm Registered Holsteins

Our motto: Choice individuals—the profitable producing kind. Nothing for sale now, but get in line early for your next herd sire.  
**A. E. HULET, - Oxford Co., G.T.R. - NORWICH, ONTARIO**

## HOLSTEIN BULLS FROM 30-lb. DAMS

If you want 30-lb. bulls—good individuals—and priced right—you should see my present offering. I also have lower priced bulls and am offering females bred to Ormsby Jane Burke. Correspondence solicited. **R. M. HOLTBY, Manchester G.T.R.; Myrtle C.P.R.; FORT PERRY, Ont.**

**"Premier" Holstein Bulls** Ready for Service—I have several young bulls from dams with 7-day records up to 32.66 lbs. of butter, 755.9 lbs. of milk, with 110 lbs. of milk in one day—over 3,000 lbs. in 30 days. All are sired by present herd sire, which is a brother to May Echo Sylvia. Step lively if you want these calves.  
**H. H. BAILEY, Oak Park Farm, Paris, Ont.**

**Cedar Dale Farm**—The Home of Lakeview Johanna LeStrange, the \$15,000 sire—He is the son of the 38.06-lb. cow, Lakeview LeStrange, and is our chief sire in service. We are offering a few females bred to him and also have a few bull calves sired by him at right prices. Other older bulls, sired by our former herd sire, Prince Segis Walker, son of King Segis Walker.  
**A. J. TAMBLYN, Cedar Dale Holsteins - (C.N.R. station one mile) - Orono, Ontario**

## SUNNYBROOK FARM HOLSTEINS

We are offering for quick sale one 24-lb. bull and one 26-lb. bull ready for service. Both are sired by a 33-lb. son of the great King Segis.  
**JOSEPH KILGOUR, - NORTH TORONTO, ONT.**

**Two Young Holstein Herd Sires**—I have only two young bulls of serviceable age left—both are sired by Lyons Hengerveld Champion, whose dam is the 25.83-lb. junior 3-year-old daughter of Baroness Madoline, 34.48 lbs. Both calves are 18-month youngsters, one from a full sister of a 29.95-lb. cow and the other is from an untested daughter of Baron Colantha Fayne. They are priced to sell.  
**T. W. McQUEEN (Oxford Co.) Tillsonburg, Ont.**

## PIONEER FARM HOLSTEINS

My present sale list includes only bull calves born after Jan. 1st, 1919. These are priced right.  
**WALBURN RIVERS & SONS - R.R. No. 2, Ingersoll, Ontario**

## ROWAN RIVER STOCK FARM

At present we have 3 bulls of serviceable age, sired by a 31-lb. sire from R. O. M. and R. O. P. dams. Younger ones sired by a grandson of May Echo Sylvia; his two nearest dams average 832 lbs. milk, 33½ lbs. butter for 7 days. Priced to sell.  
**PETER B. FICK - PORT ROWAN, ONT.**

**Minster Farms**—Holstein bulls fit for service for sale. Son of a 14,763-lb. 2-year-old dam, with 650 lbs. butter (in test again at 3 years old, milking higher and tested 4.4% butter-fat). Also a pair of bulls from untested sisters of our 18,864-lb. milk and 777.5-lb. butter, 4-year-old heifer (Marie Calamity Fayne). Dam of their sire has 19,500 lbs. They are choice bulls and priced right. For full particulars, write  
**R. HONEY & SONS, Dartford, Ont. (Hastings Station).**

## Thames Valley Farms

Bull calf, sired by a proven son of Rag Apple Korndyke 8th, "the world's greatest bull"—dam an 18.51-lb. junior 2-year-old daughter of May Echo Champion, the only full brother of the world's greatest milk cow, May Echo Sylvia. This calf is well marked—more white than black—a show calf. The first \$100 takes him.  
**B. B. McCARTY - Thamesford, Ont.**

## FOR SALE

One O.K. Potato Planter  
One O.K. Potato Digger  
One Four-row Sprayer  
One Two-row Cultivator  
This outfit has only been used one season, and will sell cheap.  
**R. THOMSON, - BRUSSELS, ONT.**

Herd Sires

from Lulu Darkness, two nearest dams, milk per day. We have three-year-old heifers

burg, Ontario

ilton, Ont.

SALE

offord. Junior is grandson of Olivia Pontiac.

2 LBS. MILK

and 638.57 lbs. fat. That the average annual yield is as much milk as 62 cows of the milk you require!

Send for booklet—valuable information CANADA

ST. GEORGE, ONT.

TAN FARMS

out of R.O.P. cows and our young ones always welcome.

LEWISVILLE, ONTARIO

Friesians

sons of our previous (Pietzerje), and all of these are of high quality, considered, our young ones

Queen's Hotel, Montreal

iac Rauwerd who combines the best of both sires and dams. His offspring, 75 head to choose from, service to "King."

Collingwood, Ont.

of Holstein bulls ever offered have records up to over \$4. All are sired by a bull with a this year. Prices reasonable. No. 2, Hamilton, Ont.

months old; all splendid individuals by noted blood and big line King), has been used on exceptionally promising individuals.

3, Bowmanville, Ont.

Holsteins

ing for sale now, but get in

DRWICH, ONTARIO

DAMS

see my present offering. I have a correspondence with FORT PERRY, Ont.

young bulls from dams with over 755.9 lbs. of milk, with present herd sire, which is a

Farm, Paris, Ont.

the \$15,000 sale—He is a fine, and is our chief sire. He bull calves sired by him at White Lady of Craigielea 2nd, 11,700 lbs. milk, 450 fat in one year, milked twice a day. One of our very best breeding cows. No. 2. Four months' old bull. Dam's 2-year-old record, 9,157 lbs. milk, 389 fat. No. 3. Two months' old bull. Dam's 3-year-old record, 13,959 lbs. milk, 559 lbs. fat. Also some young cows safely bred and younger heifers. Give us a call.

H. C. HAMILL, MARKHAM, ONTARIO

Locust Hill, C. P. R. Markham, G. T. R.

Westside Ayrshires and Yorkshires—Have one bull 12 months old and two bull calves, all from record dams. Am also booking orders for spring pigs. Let me hear your wants.

DAVID A. ASHWORTH, Denfield, Ontario, Middlesex Co.

SPRINGBANK R. O. P. AYRSHIRES

Our Ayrshires win in the show ring and they fill the pail. We hold more present R. O. P. champion records than any other herd in Canada. Present offering, 9 young bulls seven months and under, all from high record dams.

A. S. Turner & Son, Railway Station, Hamilton Ryckman's Corners, Ont.

Homestead Farm R.O.P. Ayrshires—At the head of our herd at present we have a grandson of the great Jean Armour. He is being used on the daughters of our former sire, Garlaugh Prince Fortune (imp.). Young cows freshen this fall and winter.

McVICAR BROS., 'phone 2253 Harrietsville, Belmont, R.R. No. 1, Ont.

Glenhurst Ayrshires

headed by Mansfield Mains Sir Douglas Hague No. 16163 Imp. have been noted for their depth and size, good teats and smoothness of conformation. If you are looking for a combination of size, type and production—plus high butterfat—write me or visit the farm. Males and females of all ages for sale.

JAMES BENNING, Summertown Sta., G. T. R. Williamstown, C.P.R. Bell Telephone 78-3 Cornwall

Berkshires—At the great Smithfield Show, London, England, in December, the Berkshires won the Grand Championship for fairs, and made the remarkable showing in the four classes of the Carcase Competitions for pigs of all breeds by winning ALL the four prizes in the four classes; all sixteen pigs being pure-bred except one. We have over eighty head of splendid stock. Come and see them, or send for our breeding list.

J. B. PEARSON, Manager, Credit Grange Farm, Meadowvale, Ont.

ELMHURST LARGE ENGLISH BERKSHIRES

From our recent importation of sows, together with the stock boar, Sudden 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.

BRUSSELS, ONT.

Look for the Sign of the Grain-Saving Stacker

THE Grain-Saving Wind Stacker saves the grain wasted in the ordinary process. It saves enough, in fact, to pay the threshing bill.

For this reason the Grain-Saving Stacker is the most important improvement in threshing machinery that has been developed in the last twenty-five years.

On your job you can be sure that your grain will go to the sack where it belongs and not in the stack. Insist that the separator must be equipped with the Grain-Saving Wind Stacker.

Manufacturers of the famous makes equip with the Grain-Saving Stacker. Write to any of the list below for full information



See that this trade-mark—in colors—is on each side of the Wind Stacker you buy or hire. It indicates the Grain-Saving Wind Stacker.

The Grain-Saving Stacker Originated With the Indiana Manufacturing Co., Indianapolis, Ind., Who Also Originated the Wind Stacker.

LIST OF MANUFACTURERS

- Canada: Robt. Bell Engine & Thresher Co., Ltd., Seaford, Ont.; Dominion Thresher Co., Ltd., New Hamburg, Ont.; J. B. Dore & Sons, Ltd., Leamington, Ont.; Ernst Bros. Co., Ltd., Mt. Forest, Ont.; John Goodison Thresher Co., Ltd., Sarnia, Ont.; Hergott Bros., Ltd., Midland, Ont.; MacDonald Thresher Co., Ltd., Stratford, Ont.; Sawyer-Massey Co., Ltd., Hamilton, Ont.; Stewart Sheel Leader Co., Ltd., Winnipeg, Man.; Wallace Machine Works, Ltd., Sussex, N. B.; Waterloo Manufacturing Co., Ltd., Waterloo, Ont.; R. Watt Machine Works, Ltd., Ridgeway, Ont.; George White & Sons Co., Ltd., London, Ont.

BRAMPTON JERSEYS

The Largest Jersey Herd in the British Empire

At Toronto Exhibition, 1919, we won twenty-five of twenty-seven first prizes. We now have for sale first-prize young bulls from R. O. P. dams, as well as females of all ages.

B. H. BULL & SONS - Brampton, Ontario

Laurentian Producing Jerseys—The oldest bull we have at present is a year old youngster, sired by our herd sire, Broadview Bright Villa, No. 5630, and from Brampton Astoria, one of the best imported cows in the herd. We also have others younger of similar breeding, as well as a few bred heifers for sale. FREDERICK G. TODD, Owner, 801 New Birk Bldg., Montreal, P.Q. Farm at Morin Heights - F. J. WATSON, Manager

THE CANADA'S MOST BEAUTIFUL JERSEY HERD Herd headed by Imported Champion Rower, winner of first prize with five of his daughters on the Island of Jersey, 1914, second in 1916, and again first in 1917. We are now offering for sale some very choice bull calves, ready for service, sired by imported bulls and from Record of Performance imported prize-winning cows. Also some cows and heifers. Prices right. We work our show cows and show our work cows.

For Sale—Edgeley Golden Jolly, son of Queen 2nd—1st prize in 2-year-old in milk at Guelph in 1919. His sire is Edgeley Bright Prince, a son of Sunbeam of Edgeley. We have him priced right for quick sale. JAS. BAGG & SONS, EDGELEY, ONT. (Woodbridge C.P.R., Concord G.T.R.)

Craigielea Ayrshire Herd Sires—THREE YOUNG BULLS SPECIALLY PRICED and special individuals—No. 1: A 13 months' old bull by a son of Milkmaid 7th, 16,696 lbs. milk, 729 lbs. fat (former Canadian Champion), out of White Lady of Craigielea 2nd, 11,700 lbs. milk, 450 fat in one year, milked twice a day. One of our very best breeding cows. No. 2: Four months' old bull. Dam's 2-year-old record, 9,157 lbs. milk, 389 fat. No. 3: Two months' old bull. Dam's 3-year-old record, 13,959 lbs. milk, 559 lbs. fat. Also some young cows safely bred and younger heifers. Give us a call.

H. C. HAMILL, MARKHAM, ONTARIO Markham, G. T. R. Locust Hill, C. P. R.

Westside Ayrshires and Yorkshires—Have one bull 12 months old and two bull calves, all from record dams. Am also booking orders for spring pigs. Let me hear your wants. DAVID A. ASHWORTH, Denfield, Ontario, Middlesex Co.

SPRINGBANK R. O. P. AYRSHIRES Our Ayrshires win in the show ring and they fill the pail. We hold more present R. O. P. champion records than any other herd in Canada. Present offering, 9 young bulls seven months and under, all from high record dams. A. S. Turner & Son, Railway Station, Hamilton Ryckman's Corners, Ont.

Homestead Farm R.O.P. Ayrshires—At the head of our herd at present we have a grandson of the great Jean Armour. He is being used on the daughters of our former sire, Garlaugh Prince Fortune (imp.). Young cows freshen this fall and winter. McVICAR BROS., 'phone 2253 Harrietsville, Belmont, R.R. No. 1, Ont.

Glenhurst Ayrshires headed by Mansfield Mains Sir Douglas Hague No. 16163 Imp. have been noted for their depth and size, good teats and smoothness of conformation. If you are looking for a combination of size, type and production—plus high butterfat—write me or visit the farm. Males and females of all ages for sale. JAMES BENNING, Summertown Sta., G. T. R. Williamstown, C.P.R. Bell Telephone 78-3 Cornwall

Berkshires—At the great Smithfield Show, London, England, in December, the Berkshires won the Grand Championship for fairs, and made the remarkable showing in the four classes of the Carcase Competitions for pigs of all breeds by winning ALL the four prizes in the four classes; all sixteen pigs being pure-bred except one. We have over eighty head of splendid stock. Come and see them, or send for our breeding list. J. B. PEARSON, Manager, Credit Grange Farm, Meadowvale, Ont.

ELMHURST LARGE ENGLISH BERKSHIRES From our recent importation of sows, together with the stock boar, Sudden 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.

Gossip.

In our report of the Guelph Fat Stock Club sale we gave the heifer Fancy Miss as being purchased by Duncan Reid, of Hillsdale. We have been informed that this should have been R. Reid.

The shipment of Ayrshire cattle which recently arrived in this country for Hunter Bros., contains a large number of outstanding representatives of the breed. They were imported direct from Adam Montgomery, Lessnessock Stables, Scotland. A number of breeders in Canada have already visited the herd while in quarantine and negotiated with the owners for some of the animals. McIntyre Bros., of Sussex, N. B., have purchased a valuable pair. We understand that the cattle are particularly true to type. It is expected that another shipment of Ayrshires will soon arrive at St. Johns for the well-known Canadian breeder, R. R. Ness.

Holstein Herd Sires.

In the advertising columns of this issue will be noted an offering in young Holstein herd sires from the herd to T. W. McQueen, of Tillsonburg, Ontario. Mr. McQueen's herd is one of the larger and better herds of Oxford County, and the bulls offered are sired by Lyons Hengerveld Champion, whose dam, Madoline Dora De Kol, is a 25.83-lb. three-year-old daughter of the great 34.48-lb. cow, Baroness Madoline, who also made 23,673 lbs. of milk and 1,122.5 lbs. butter in a year. On the sire's side, Lyons Hengerveld Champion is got by King Lyons Hengerveld, a son of Blanche Lyons Johanna and King Peter. The calves offered for sale are nearly all from tested dams, the majority of which are daughters of Mr. McQueen's former herd sire, Louis Prilly Rouble Hartog. There are also a number of younger calves which are mostly from daughters of Louis Prilly Rouble Hartog, and sired by Mr. McQueen's great young herd sire, which is a 34.43-lb. grandson of Avondale Pontiac Echo. These youngsters advertised are splendid individuals and all are, we understand, priced to sell.

Questions and Answers. Miscellaneous.

Rural Mail Box.

1. When a man has sold his farm and has an auction sale, can he sell the mail box and post?

2. Can he take the box with him and sell the post? R. J. Ontario.

Ans.—1 and 2. We would say, yes, in answer to both questions if we may assume that there is nothing in the agreement of sale of the farm to the contrary.

Husband and Wife.

A and B are man and wife. Some seven or eight years ago they bought a farm. The deed is made out in B's name. B pays \$500, or one-ninth of money. A has no money but has all the chattels and implements to run farm. Four-ninths I borrowed from a relative living with B, and four-ninths A puts \$500 life insurance into farm and also works farm and pays off all debt. Now B is about selling farm for \$7,000.00.

1. Is A entitled to any of the money from sale of place?

2. Can A come on B for a living out of price of farm?

3. Is B entitled to any of the money from fat cattle or hogs, or any chattels sold off place?

4. Is B entitled to money for hay or grain or potatoes or anything likewise sold off place?

5. Can B compel A to provide a living for her after sale of property? W. B. Ontario.

Ans.—1, 2, 3 and 4. Having regard only to the law applicable to these matters, we would answer all these first four questions in the negative.

5. Ordinarily a husband is legally bound to support his wife, but under the circumstances stated B might have considerable difficulty in compelling A to provide further for her.

Maple Shade Farm

Imported Shropshire ewes served by best imported rams, very desirable for foundation flocks.

W. A. DRYDEN

Brooklin - Ontario

Shear With Machine

Old ways of shearing leave too much wool on the sheep. Wool is scarce and commands high prices. Buy that sheep shearing machine NOW—they're going to be scarce this season. Get a Stewart No. 9 Ball Bearing Machine with 4 sets of knives. Get one from your dealer—the only machine that always satisfies. Write for 1920 catalog. CHICAGO FLEXIBLE SHAFT COMPANY Dept. B 161, 12th St. and Central Ave., Chicago, Ill.

Shropshire Yearling Ewes—bred to Bibby's 84 (imp.) ram and ewe lambs sired by him. Two Shorthorn bulls. Two Clydesdale stallions. W. H. PUGH, Myrtle Station, Ont.

Large Black Pigs

Hardy, thrifty, and easy feeders, the English Large Blacks are a satisfactory breed for this country. In England their popularity brings higher prices for them than for other breeds at present. A bacon type and good size. Try them. Reasonable prices. All ages on hand at present.

Also English dual-purpose bulls.

LYNNORE STOCK FARM

F. W. COCKSHUTT Brantford - Ontario

YORKSHIRES

Pigs of different ages, both sexes, from large litters.

WELDWOOD FARM

Farmer's Advocate, London, Ontario

Berkshires—Boars ready for service and boar pigs, rich in the blood of Lord Premier's Successor 161500, Grand Champion, 1914, Champion Sire of 1915, 1916, 1917. His descendants have won Grand Champion honors at the largest and strongest shows of 1919. The Champion Berkshire barrows of 1918 International were double grandsons of Lord Premier's Successor. We have shipped many Berkshires to Canada with satisfaction to customers. Prices on request. HOOD FARM, INC., Lowell, Mass.

BERKSHIRES

Registered sows, 7 months old. Just right for breeding.

MAIN AND COLLYER

P.O. Box 275, - London, Ontario

For Sale

Reg. Berkshire sows due 1st May from prize winning stock. Reg. Shropshire ewes due in April. Two registered yearling Durham bulls. Two registered Percheron mares 3 and 4 years old. Apply J. W. Coulter, R. R. No. 7, St. Thomas, Ont.

Invergie Tamworths.

A choice lot of gilts bred for June and July farrow. Young boars from 50 pounds up.

Leslie Hadden, Box 204, Sunderland, Ont.

Meadow Brook Registered Yorkshires

Ten choice young boars fit for service, from prize-winning stock. Prices reasonable for quick sale. C. W. MINERS, R.R. No. 2, Euster, Ontario

TAMWORTHS

Young sows bred for May and June farrow, and boars for sale. Write or 'phone.

JOHN W. TODD - Corinth, Ontario

Big Type Chester Whites—We cleaned up at London and Toronto Exhibitions, 1919. Now offering pigs from our 805-lb. sows, and sows bred to our 1,005-lb. boar. JOHN ANNESSER, Tilbury, Ont.

Prospect Hill Berkshires—Young stock, either sex, for sale, from our imported sows and boars; also some from our show herd, headed by our stock boar, Ringleader. Terms and prices right. JOHN WEIR & SON, R.R. 1, Paris, Ont.

Sunnyside Chester Whites and Dorsets—In bred from our champions. In Dorset ram and ewe lambs, by our Toronto and Ottawa champions, and out of Toronto, London and Guelph winners. W. E. Wright & Son, Glanworth, Ont.

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



**Snowflake**  
THE FULL STRENGTH  
**Ammonia**

S.F. Lawrason & Co.  
LONDON, ONT. 12

**Just Put Clothes In—the Washer Does the Work**

If you have a gasoline engine—if you have electric power—then no longer need you even work the lever of a hand-operated power washing machine. Let power help your work as it does your husband's!



Of course you realize that a washing machine, even run by hand, is quicker, easier, better than washing by muscle-power. But here's a washer that does everything—all you have to do is turn on the juice.

**Maxwell**  
Power Bench Washer

—will do the washing while you do other work! No need to watch it—it can't go wrong. It will do the wringing too. Easy to operate—simple and strong in construction—perfect in mechanism. Made in one-, two-, or three-tub size; operated equally well by 1/6 h.p. electric motor, or any gasoline engine. Write us to-day for full particulars—it will be time well-spent.

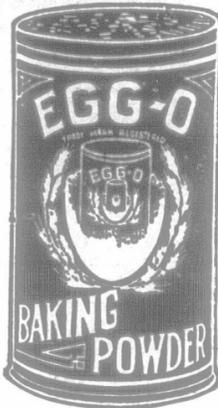
38 MAXWELLS LIMITED, Dept. W ST. MARYS, Ont.

Double Acting—  
Doubly Saving

**EGG-O**  
Baking Powder

Sold Everywhere

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




**Have Your Cleaning Done by Experts**

Clothing, household draperies, linen and delicate fabrics can be cleaned and made to look as fresh and bright as when first bought.

**Cleaning and Dyeing**  
Is Properly Done at Parker's

It makes no difference where you live; parcels can be sent in by mail or express. The same care and attention is given the work as though you lived in town.

We will be pleased to advise you on any question regarding Cleaning or Dyeing. WRITE US.

**Parker's Dye Works Limited**  
Cleaners & Dyers  
791 Yonge St., Toronto

## Our School Department.

### The Flowers in April.

#### A Lesson Plan.

**Aim:** To interest the children in the first flowers in blossom, and to have them notice particularly the appearance of the willow "pussies," that they may love the beauties of Nature more.

**Materials:** Branches of the two kinds of pussy willows. Specimens of the dandelion, dog's-tooth violet, hepatica, spring beauty and any flower that may be in blossom.

**Method:** 1. Ask questions, e. g., What pretty thing or things did you see on your way to school? Have you seen any wild flowers this spring? Where did you see them? Have you seen any on trees? Tell me about those flowers you have seen. Wouldn't you like to learn something about them? Let us learn what we can about April flowers, especially about pussy willows.

2. Let us first look at some pretty flowers that grow near the ground. Let us take the dog's-tooth violet. What color is it? How big is it? Has it any perfume? Where do you find it? Look at other pretty flowers. Ask similar questions about the hepatica, the dandelion, the spring beauty and other flowers. Have you ever noticed these hanging clusters on trees? Why, do you think, is each called a "pussy"? Does a pussy look like a flower? How does this resemble a pussy? How is it protected? There are two kinds of pussy willows. Let us see the difference between them. They grow on different bushes. Have you ever run a pussy willow through your fingers? Let us all do this. What do you notice? Do you get this yellow dust, which is called pollen, off them all? What do some of the pussy willows contain? Do you find that they all contain seeds? If not, which kind does, the one which contains the pollen or the other? On what do pussies grow?

3. Compare the colors and perfumes of early spring flowers with later flowers. Which do you like better? Why? Compare the "pussy" of the willow with "pussies" on other trees. Which is prettiest?

4. Where do you find pussy willows? How can you tell the difference between the two kinds? Of what are pussies made? Of what use are pussies? When are they called pussies? What kinds of trees bear pussies?

5. Gather some pussy willows and place them in water. See what will happen. Gather some wild flowers and make your homes bright with them.

6. Draw a picture of the pussy willow. Read poems and stories about the pussy willow and other spring flowers.

The above lesson plan is from Nature-Study Lessons by Dr. D. W. Hamilton.

### Games, Play and Recreation.

A. MACLAREN, B. S. A.

Have you ever tried the game of picking out the different kinds of men, women, boys and girls that you know and putting them in different groups according to their natures? If you have not, try it some time.

There's the man we call "Old Grouch." If your ball flies over into his garden he comes out growling and grumbling and captures your ball and keeps it. He never smiles to the boys as they pass by. "Boys and girls are only a nuisance," he says, "they spend too much time with fun and frolic and never attempt anything useful," and so he goes through this world with a frown on his face, envy in his heart and no joy in life.

Then there's the boy who loafs around the store at the village and does nothing. He is too lazy. He doesn't want to bother. Games, such as football or hockey are too strenuous and tiring, and so he loafs, and later becomes a waster and maybe a criminal.

Then there is the timid little fellow who, when some game is on, sits or stands around watching it instead of getting into the game and developing courage and the ability to do things himself.

There's another kind of boy—the kind none of us like—the "quitter." He

starts in with the rest, all enthusiasm and energy, and all goes well until the job gets a little bit hard or things in the game do not come his way, and then he says, "Aw! I've had enough—let's play something else."

Then there's the fellow we all love—big, strong, hearty, always a smile on his face; ready to lead in any kind of fun or games, great at swimming, skating, hockey, football, baseball, one who always leads in everything good or bad. He has his faults, but we like him all the same. Why? Because he does things. He's the kind of fellow who, when the umpire gives a "raw" decision and the team begins to howl, says, "Come on, fellows, let's play the game." You never hear him talk back, no matter what happens.

And so we can discover a great many kinds of people in this world. What kind do you belong to? Are you satisfied to stay in that class or do you want to get into another class? It depends on you.

I want to tell you, if I can, how these different kinds of people have come into being. They are what they are either because they have learned to play games honestly, fairly, squarely, or they have never played games at all.

The "old grouch" is an old grouch because he never developed his stock and surplus of energy and happiness in playing games, and so he lost God's greatest gift, the spirit of play, in which we should do all our work. The farmer who suspects everybody of cheating him has never learned to play his place in the ball team. He never learned what it is to make a sacrifice hit, to play so that the team would win whether he got any individual glory or not, so he can never be a co-operator.

Then the loafer never felt the joy of overflowing physical power as you run the bases or dribble the football up the field, dodging all comers, and so he has allowed his physical powers to go to sleep from which there is no awakening.

And that timid little fellow. Through no fault of his own he has not the courage to face the hard tasks of life. Do you want to help him have the courage to do great things in life? Then encourage him to come into your games. Don't laugh at his awkwardness too much. Remember! He needs the games.

And the "quitter," what about him? Well, don't let him in on anything unless he promises to carry it through. If he fails, then shut him out the next time until he learns to persevere.

We all want to be like the big, hearty, strong leader. Perhaps we can't all be such men and women but we can all get a whole lot nearer to it than we are now. You want to know how, don't you? Well, it's quite simple. Get into games and play them with all your might, honestly, fairly, behind the umpire's back or before his face; stick to the game till the end, help the more timid ones and enjoy it to the full yourself.

### The Community and the School.

The success and efficiency of any school does not depend solely on the teacher and the equipment placed at his or her disposal; there must be a strong community spirit standing solidly behind the school. The parents and rate-payers must consider it their school, and stand ready to defend rather than condemn it. The Ontario Federation of Home and School Associations endorse the following ideal:

The Community—Forward-looking, not fearful of nor indifferent to reform; recognizing its children as its greatest possession; interested in and proud of its schools; visiting the school frequently and attending its annual school meeting in large numbers; realizing charges for education as an investment and not an expense; supporting teachers by sympathy and moral backing, and not weakening their influence by unfair criticism and listening to tales; protecting itself and its children from unwholesome social influences that might undo the work of the school, by liberally supporting the work of the Church, the Sunday School and other moral agencies.

# Mellow Soils Best For Growth

A HARD-CRUSTED soil surface excludes the air, dries out the soil and dwarfs the crop. Any soil, no matter how hard or dry can be made into a good mellow seed-bed with a Peter Hamilton Stiff Tooth Cultivator. The tender seedlings or young plants push their way more easily through a mellow soil than through a stiff and cloddy one.

## Peter Hamilton

### STIFF TOOTH CULTIVATOR

is exceptionally good for breaking up land or for summer fallow. The frame is thoroughly braced and trussed, which gives it extraordinary endurance for deep cultivation in the hardest kind of soil.

Deep cultivation is now advocated by agriculturists and for this work and killing weeds the Peter Hamilton Stiff Tooth Cultivator is unequalled.

The relief spring is the most successful yet used. After a stone or other obstacle is passed the foot flies back automatically into place again. The foot can be set forward to work into the hardest land. You can cultivate just as deep or just as shallow as you like.

Any width of thistle or weed cutters can be supplied. One set is supplied with every machine. You need the help of a Peter Hamilton Cultivator for your field work. With it you can prepare the best seed-bed and get increased crops. Don't put off buying. Write us to-day.

The Peter Hamilton Co., Limited  
PETERBORO, Ont. 21



## Our O-K on the Aylmer Sprayer

We have just purchased the manufacturing rights of the Aylmer Barrel Sprayer, which makes our line of spraying machinery complete and adds a new type of sprayer, which has found favor with Canadians for more than 20 years. It will in future be known as the

## O-K Aylmer Barrel Sprayer

and enables us to offer to the farmer and gardener a matchless range of sprayers. The O-K Aylmer will be improved by the addition of our non-clog nozzle, while retaining the best features of the famous Aylmer pump. This pump requires no packing and is sold with or without the barrel. It is particularly adapted for efficient orchard work, and for many other uses, especially for the fumigating of buildings and the applying of whitewash.



Two-Row Sprayer

If interested in the O-K Aylmer Barrel Sprayer write for more particulars.

We also manufacture the O-K Sprayer (knapsack) and the O-K Canadian Two-Row and Four-Row Sprayers. We supply spraying calendar suitable for Canadian conditions with each sprayer.

Write for literature.

CANADIAN POTATO MACHINERY COMPANY,

"54" Stone Road, Galt, Ontario

Makers of the famous O-K Potato Diggers and Planters. 3

## FROM OUR FENCE FACTORY



The most satisfactory way to buy Fencing is from a responsible Fence Factory where you get first service at Factory prices. That's us—we make Fencing for and sell to Canadian Farmers. We will save you a lot of good money if you deal with our Farmers Fence Factory. Prompt shipments made. Fencing fresh from the loom—always highest quality. Lowest prices on all Sarnia Farmers Friend Fencing, Sarnia Gates, Barb Wire and Fence Supplies. Costs no more to erect a Sarnia Fence with full gauge wire, heavily galvanized, rust resisting. Full measurement. Full size rolls and full weight. An honest service and a square deal. Our methods and our Fencing vouches for by thousands of satisfied users—Canadian Farmers throughout the Dominion. There is a good reason—it sells because it excels. Speaks for itself and stands for years as an advertisement of Sarnia Fence Satisfaction and the prosperity and good business judgment of Sarnia Fence users—

For Every Fencing Need **SARNIA** For Canadian Farmers

Will not sag in summer nor break in winter, conforms to uneven ground, up hill or down, as well as level ground. The strong line wires have a wave or crimp which gives elasticity and spring to the Fence, providing for contraction or expansion. The strain is evenly distributed on each wire. The Sarnia knot grips and stays tight—will not slip in any direction. We have saved the farmers of Canada many thousands of dollars by our plan of direct dealing from Factory to Farm—cutting out all dealer or middleman's profits and giving it to the Farmer.

Canadian Farmers must help supply the hungry nations of Europe by using every foot of ground for productive purposes. Have no waste fence corners but plow in the line. Do not buy Fencing until you have our prices. Prepaid freight prices quoted in Old Ontario. Four cents a rod extra in New Ontario, Quebec and Maritime provinces. Western Canada supplied from our Winnipeg warehouse. Order now and be ready. Price list, order blanks, descriptive literature yours for asking.

The SARNIA FENCE CO., Ltd.  
Winnipeg, Man. Sarnia, Ont.

DIRECT to FARMER



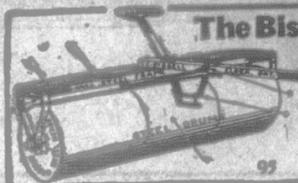
## Hemme's Latest Seeder

This seeder saves a great deal of seed and labor by planting it where you want it only, in furrow made by steel disc, which turns and does not clog or trail seed; will sow rape, turnips, carrots, onions, cabbages, sugar-beets, mangels, cucumber, sugar cane, corn or any other kind of seed, dropping seed like this . . . . . This method of seeding saves a great deal of seed and labor, also spreading as much fertilizer as you wish around the seed.

It has paid for itself on two acres by increasing the crop. Take advantage of our special introducing price.

A. HEMME SONS & CO., Elmira, Ontario

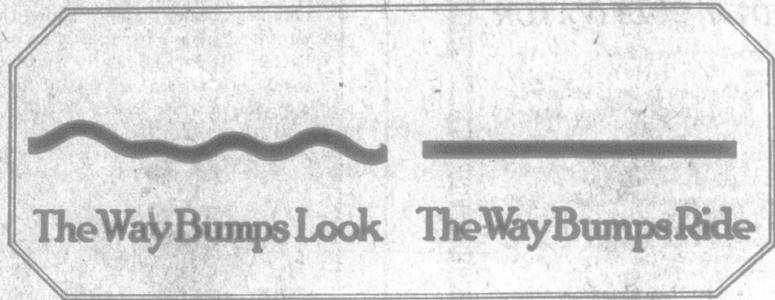
Send TO-DAY for free information and special price



## The Bissell Steel Roller

has a rigid steel frame—no wood whatever. Large roller bearings and strong 2" axles insure durability and great strength. The Bissell is a 3-drum Roller of good weight, built to stand hard usage and give great service. Write Dept. W. for free catalogue.

T. E. BISSELL CO., LTD., Elora, Ont.



# An All-Canadian Car For All Canadian Roads

**O**VERLAND 4 travels with such remarkable ease that rough roads seem to become level as you ride.

Its *Triplex Springs*, a far-reaching improvement in riding comfort, effectively ward off shock and strain from the occupants of the car and every mechanical part.

Instead of slowing down or turning back for rough roads, Overland 4 *keeps on going*.

The general impression among Overland 4 owners is that of continually riding on good roads.

Attached diagonally at three points *Triplex Springs* give Overland 4 the combined advantages of light weight, longer tire, gasoline and oil mileage, and ease of driving along with the road steadiness of the heavy long wheelbase car.

In every essential Overland 4 is high grade and complete. It has Electric starting and lighting and many other conveniences.

Made in one of Canada's largest manufacturing establishments, Overland 4 is giving remarkable satisfaction and smooth riding on all kinds of Canadian roads.

## WILLYS-OVERLAND LIMITED

*Sedans, Coupes, Touring Cars and Roadsters*

Head Office and Factories, Toronto, Canada

Branches: Toronto Montreal, Winnipeg and Regina

