

August 3, 1916

PUBLISHED EVERY WEEK. \$1.50 PER YEAR.

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

PERSEVERE
SUCCEED
FOUNDED 1880

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

Director Central Exp. Paris
g. dec. 31. 16

Vol. LI.

LONDON, ONTARIO, AUGUST 10, 1916.

No. 1246

There is more or less work

Every furnace demands *some* attention. But there is no reason why the twice-a-day job should be anything but pleasant. And to save a *little* time and a little bother every day means a lot in the course of the winter.

The Sunshine is a furnace any one can look after without spoiling either clothes or temper

The door is large enough for the biggest coal shovel. The grates are strong and turn easily. The ash-pan catches *all the ashes* without the need of shovelling. The water-pan is located so that it can be *filled quickly*.

Ash-dust cannot escape when the Sunshine is

being shaken down. None of that light dust floats about the house or the basement.

The damper and the check draft can be regulated from upstairs—and perfectly too. The close-fitting doors and dampers hold the fire for hours without waste.

McClary's Sunshine Furnace

Do you know how little it will cost you to enjoy the comforts of a fine Heating System in your home? Send the coupon for a copy of our booklet "Sunshine." And if you wish to have prices of installing a Sunshine Furnace, let our Heating Engineer send you the information. Tell him the kind of a house you have and the number of rooms; give him a rough ground plan of the upstairs and downstairs and he will show you how to plan your heat distribution so as to get the utmost out of it. There is no charge for the service; it is free whether you buy a Sunshine Furnace or not.

Kindly send me without expense on my part:—

1. Your booklet on the Sunshine Furnace.
2. Also forms for filling out, so that your heating engineers can tell me how to order and install a system that will properly heat my home.

NAME.....

ADDRESS.....

McClary's

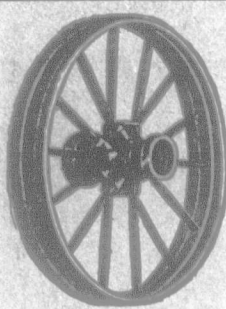
London Toronto Montreal Winnipeg
Vancouver St. John, N.B. Hamilton
Calgary Saskatoon Edmonton

803



you
And
MC.
ested
who
cart-
-arm
n for
en off
rs, so
ning-
load-
over,
f the
used.

MINGTON
JMC



An Extra Set of Wheels

will make your wagon as good as two wagons

You need a regular high-wheeled wagon. You also need a low-wheeled truck.

PAGE STEEL WHEELS

enable you to convert the one into the other, in a very few minutes.

A splendid, strong wheel is the "Page." Farmers tell us there's nothing on the market to compare with it.

Price list on application, accompanied by chart showing how to take measurements for ordering correct size to fit your wagon.

The Page Wire Fence Company, Ltd. 1143 King Street West, Toronto

GILSON ENSILAGE CUTTERS

Highest quality silage. Less power. Large capacity. Elevate to unusual heights. Built to last. Throw, blow and lift.

LIGHT RUNNING

One-piece semi-steel frame and perfect alignment of main bearings at all times. Capacities 3 to 30 tons per hour, in sizes from 4 H.P. up. When silos are high, conditions hard, or power thought insufficient, the "Gilson" invariably handles the job successfully. Thousands in use. Write postal today for free Catalogue on "The Wonderful Gilson" line of cutters. Your gas engine will run them.

GILSON MFG. CO., Limited 139 York St., Guelph, Ont.

THE GILSON



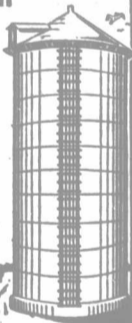
IT THROWS AND BLOWS

HYLO SILO

Sweet Fresh Ensilage down to the last forkful

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

Write for prices and catalogue. AGENTS WANTED. Gilson Mfg. Co. Ltd. 49 York St. Guelph (4)



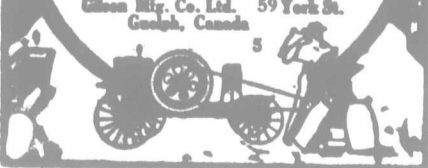
GILSON

POWER plus SERVICE After 9 years of Service

Mr. H. TUTTON, of Brantford, Ont., writes:

Gentlemen:—As my 6 h.p. Engine has been such a big saving to me during the 9 years I have had it, I thought I would write you. I have my acres, keep a lot of stock, and do all my own chopping, feed cutting, wood sawing, etc. My engine is as good as new now, and compared with other makes around me, I am perfectly satisfied with its superior fuel economy, power and reliability.

Write for FREE catalogue and prices. —ALL SIZES— Gilson Mfg. Co. Ltd. 59 York St. Guelph, Canada



Tile made from stone and cement, from 4 inches up to 18 inches; assorted car lots. Prices on application. Building Blocks for houses or barns. These make an ideal garage. Window sills, lintels for prompt shipment. For prices, write or phone 31A.

A. DEVINEY, St. Mary's, Ont.



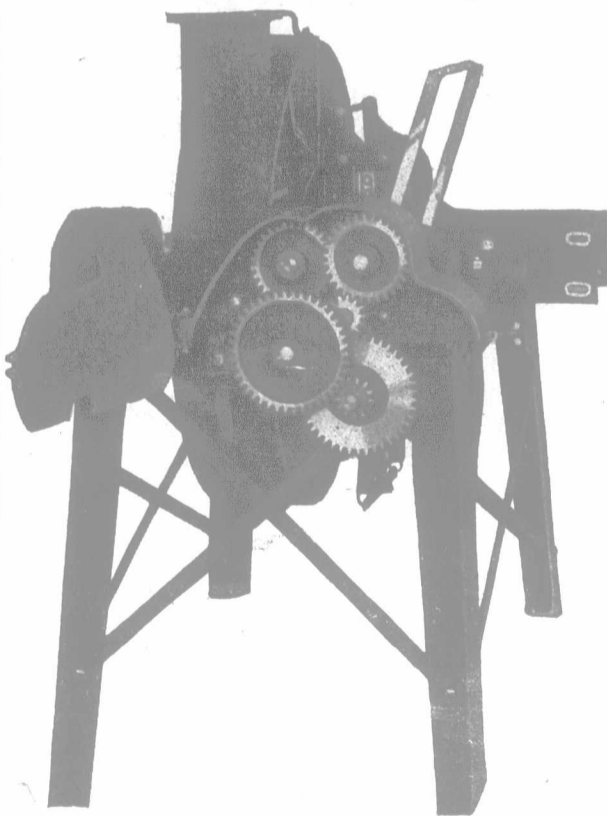
Milk Wanted

Wanted at once, 100 permanent shippers of whole milk. Must be within easy shipping distance of Toronto.

PRICE'S DAIRY, Toronto



The Monarch Ensilage and Straw Cutter



This view shows the Gear mechanism of the

Monarch

they are very heavy and run smooth and evenly, as they are all cast from cut patterns.

When different lengths of cut are desired, all that is necessary is to remove one gear and replace with gear marked for proper length of cut. Three extra gears are supplied with each machine, giving cuts as follows: 3/8, 9-16 and 7/8, 1 1/4 inches.

Write for our catalogue.

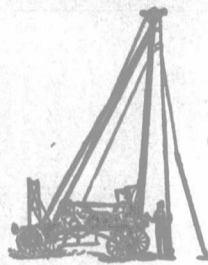
CANADIAN ENGINES, LIMITED Dunnville, Ontario

AGRICULTURAL LIME

From the celebrated Beachville Quarries. Highest testing and best. Why pay \$20 to \$30 per ton for a poor quality of wheat fertilizer when we can get the highest testing Phosphate and Lime ingredients for only \$10.00 per ton. These are the Phosphoric Acid and 90% Lime. Progressive farmers by thousands are using these best materials for profitable permanent agriculture. Write for price list. If you are a travelling traveller will call it very interesting. Agents wanted in all provinces.

THE HENDERSON FARMERS' LIME & PHOSPHATE CO., Windsor, Ont.

WATER! WATER!



Portable Well Drilling Machinery and Well Drilling Tools

The most successful Drilling

Machine ever operated in Canada

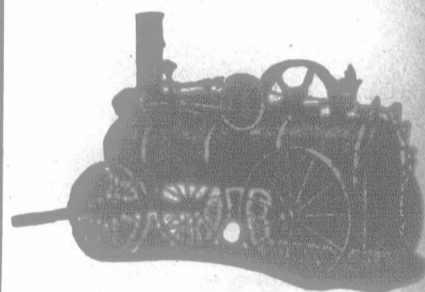
Perfect pipe driving and pipe pulling attachments.

Catalogue and full particulars on application. Local agents wanted.

\$6,700 in six months earned with one of our machines.

Well casing carried in stock.

Listowel Drilling Machine Co., Listowel - - - Ontario



Rebuilt Portable, Traction Engines and Threshers

A number of good rebuilt Portable and Traction Engines suitable for silo filling and Threshing, also a few good separators for sale cheap.

The Robt. Bell Engine & Thresher Company, Limited

SEAFORTH ONTARIO

RIDER AGENTS WANTED

In every community to ride and exhibit a sample 1916 Hyslop Bicycle.

10 DAY'S TRIAL. If owner is not entirely satisfied after riding any Hyslop Bicycle 10 days it can be returned and money will be promptly refunded.

TWO CENTS is all it will cost to write us a postal and we will mail free, postpaid, catalogue and colored folder showing complete line of bicycles, tires and supplies and particulars of most marvelous offer ever made on a bicycle. You will be astonished at our low prices and reasonable terms. MAKE MONEY taking orders for Bicycles, Tires and Sundries. DO NOT BUY until you know what we can do for you. Write today. HYSLOP BROTHERS, Limited DEPT. 2 TORONTO, ONT.



London BULL DOG Batch Mixer Capacity, 50 cubic yds. per day. Just the machine for small jobs. Pays for itself in 30 days' use. Built to last a lifetime. Send for catalogue No. 1B.

LONDON CONCRETE MACHINERY CO., Ltd. Dept. B, London, Ontario World's Largest Manufacturers of Concrete Machinery

When Building—Specify

MILTON BRICK

Smooth, Hard, Clean-Cut. Write for booklet. MILTON PRESSED BRICK COMPANY Milton, Ontario

LIVINGSTON BRAND

The purest and best

OIL CAKE MEAL

THE DOMINION LINSEED OIL CO., Ltd. Manufacturers, Baden, Ont.

Louden Barn Equipments

SAVE Time—Save Labor—Save Expense

Our new catalogue describes every kind of device for money-making and labor-saving on farms. Write to:

Louden Machinery Company Guelph, Ontario Dept. 1

Gets All the Cream Long After Other Separators Have Worn Out

Every Magnet is sturdily built from the soundest materials—finest castings, steel, bronze—it must be so built to stand the strain of the high-speed bowl. Look at the Magnet design—weight low down so that it steadies itself. Bowl has double-support and spins at top and bottom on bronze cushion bearings. No wobble, no lost balance—all the cream is caught right to the very last drop. Skimmer is a special Magnet device that skims clean and is open so that it never clogs. It will save many hours of your time that would be spent in cleaning with a cheap disc-skimmer machine.

Long Life Square Gears

The Magnet runs on square gears—that is why it delivers the cream cleanly long after other machines have worn out. Square gears run true and never wear through—you need only look under the seat of your mower or at a locomotive to prove it. Only square gears are suited for high-speed work. Easier to turn too, and just as easy after twenty years, as at first.

Double-Supported Bowl That Can't Wear Out

The only bowl that gives perfect skimming all the time is the bowl that has double support. This patent is found in the Magnet alone. The Magnet bowl is supported at top and bottom and so can't wobble. It runs on bronze bearings. And you can operate the magnet on rough ground and uneven floors without fastening it down—because of that simple double support.

MAGNET CREAM SEPARATORS

5 Minutes to Clean

The farmer's wife will think of the time saved. The Magnet bowl, skimmer and spouts can be detached without trouble. And the skimmer is one-piece and open so you can clean it with your hands and a cloth. No awkward bends in the spouts. Hours of time are saved by the Magnet in cleaning alone.

The First Magnet is still Giving Perfect Service

At our factory is the first Magnet. We have run it the equal of fifty years twice-a-day service. Yet it skims perfectly clean as if built only yesterday. And every Magnet built has some features to add to its life and make it skim just a little more efficient. Our catalog contains testimonials from farmers who have had Magnet Separators for 12 to 17 years paying only a few cents for repairs.

FREE Send for Big Catalog FREE By Return Mail

Write now and by return mail you will receive our catalog and literature about dairying. Learn from illustrations all the special features of the wonderful Magnet Separator. We will gladly bring a Magnet to your own dairy and operate it without the slightest cost or obligation to you. Write our nearest office now.



SQUARE GEARS DOUBLE SUPPORTED BOWL SOLID CONSTRUCTION

Every Magnet Feature Adds Years to the Life of the Machine

Send for our Free Books on Dairying.

A Postcard Will Bring Them.

Send This Coupon

Mark either or both of these with a cross.

Send me your Big Catalog

Name

I would like to have a FREE demonstration

The Petrie Mfg. Co., Ltd.
HAMILTON, WINNIPEG, EDMONTON, CALGARY
REGINA, VA COUVER, MONTREAL, ST. JOHN, N.B.

FREE DEMONSTRATION IN YOUR OWN DAIRY



No Matter What You Want to Shoot

Dominion Ammunition meets every requirement of the sportsman. It has speed, accuracy and reliability, the three factors necessary to perfect ammunition.

Dominion Ammunition

for small game or big, for target shooting or at the traps answers the ammunition question completely. Whether it's the powerful 303, a 22, one of the fast Shot Shells, or the other popular sizes, insist on the box with the big "D". It's the trade mark of Made-in-Canada ammunition that gives perfect shooting results.

Send for free colored hanger "A Chip of the old Block".

Dominion Cartridge Company, Limited,
829 Transportation Building, Montreal.



YOU CAN ASSURE YOUR FAMILY A MONTHLY INCOME FOR LIFE

or assure yourself an income during your old age by means of an

Imperial Monthly Income Policy

Write for particulars now and mention the Farmer's Advocate. Address:

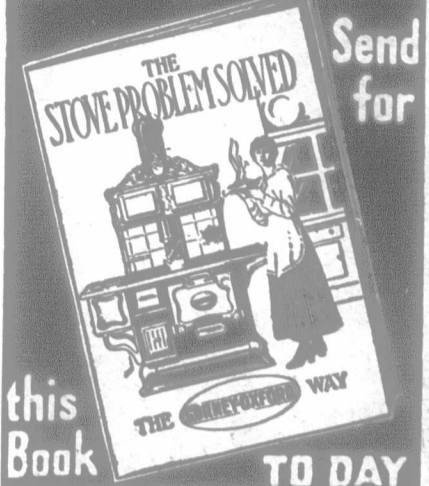
IMPERIAL LIFE ASSURANCE CO.
of Canada Head Office: TORONTO

"Eastlake" Metallic Shingles

have a 30-year-old reputation unsurpassed among roof coverings for durability, ease in laying and sterling weather-proof qualities.

Metallic Roofing Co., Limited, Manufacturers, Toronto

Need a new STOVE?



Shows Gurney-Oxford line complete with prices

Our new Catalogue shows you through the largest stove, furnace, etc., etc. foundries in the British Empire. Quotes new, low freight paid prices on Gurney-Oxford stoves, ranges, feeders, heaters, heating system, etc.

Shows why our enormous output and 70 years' experience makes them lower priced yet and better than ordinary stoves. Explains our 100 day trial offer.

Ranges from \$18 up
This book is a splendid guide to stove buying. Send for a copy to-day. Use the form below. Address—

Gurney Foundry Co. Ltd.
Toronto

Name
Address
Write your name and address above tear this out, and mail to us.
819

TRADE MARK Wilkinson Climax B REGISTERED

Ensilage and Straw Cutter

Our "B" machine, built especially for the farmer. A combination machine—it will cut and deliver green corn into the highest silo or dry straw or hay into the mow. 12-inch throat, rolls raise 6 inches and set close to knives—solid, compact cutting surface. Can change cut without stopping. Can be reversed instantly. Direct pneumatic delivery. Knife wheel carries fans. No lodging, everything cut, wheel always in balance. Steel fan case.

Made in two styles—mounted or unmounted. We also make larger type machine for custom work. Ask your dealer about this well-known machine and write us for new catalog showing all styles.

THE BATEMAN-WILKINSON CO., LIMITED

418 Campbell Ave. Toronto, Canada



Why Not Turn Apple Waste Into Profit?

Cider-making will pay someone handsomely in your section. Will it be you? Why not? Hundreds of apple growers are adding BIG MONEY to their income by making good marketable cider from their own and their neighbors' windfalls, culls, undergrades, etc., on

Mt. Gilead Hydraulic Cider Presses

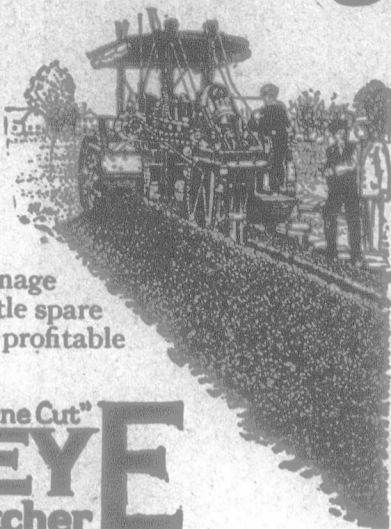
Any size up to 400 bbls. per day. Also cider evaporators, apple butter cookers, vinegar generators, filters, etc. Write for catalogue.

HYDRAULIC PRESS MFG. CO.
10 Lincoln Ave., Mt. Gilead, O., U. S. A
Canadian Agents, write: **The Brown, Boggs Co., Ltd., Dept. C, Hamilton, Can.**



The First Thing to see at your STATE FAIR

Is this ditcher under actual working conditions proving that it can cut 100 to 150 rods of perfect ditch a day. If your farm needs drainage or you think you'd like to make a little spare time money, this will prove the most profitable exhibit on the lot for you. The



"A Perfect Trench at One Cut" BUCKEYE Traction Ditcher

will be demonstrated at the
Canadian National Exposition
Toronto, Ont., Aug. 26 to Sept. 11

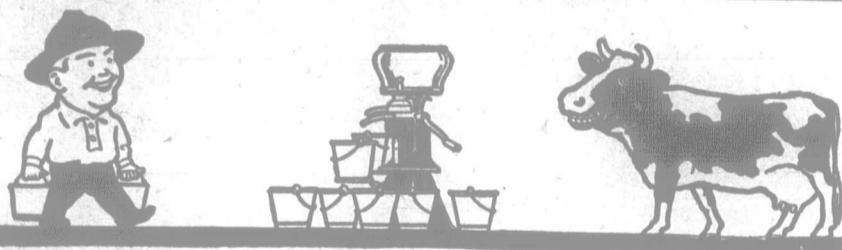
and also at the following State Fairs in the United States:

Ohio	Columbus	Aug. 28 to Sept. 1
Iowa	Des Moines	Aug. 23 to Sept. 1
Indiana	Indianapolis	Sept. 4 to Sept. 8
Michigan	Detroit	Sept. 4 to Sept. 13
Wisconsin	Milwaukee	Sept. 11 to Sept. 16
Kansas	Hutchinson	Sept. 16 to Sept. 23
Minnesota	Hamline	Sept. 4 to Sept. 9

Competent representatives will be in charge and will freely answer all questions. Learn how you can make \$15 to \$18 a day. Get our Buckeye Book of Facts E at the fair or direct from us.

The Buckeye Traction Ditcher Co.,
208 Crystal Ave., Findlay, Ohio, U.S.A.

Builders also of Buckeye Open Ditchers and Buckeye Gas Engines for farm use



Does a Cow Credit!

Of what use is it if your cows furnish extra creamy milk if you lose the cream in separation?

There is absolutely no need for this waste—for it certainly does not pay to feed cream to pigs and calves in the skim milk. Invest in a

SUPERIOR SEPARATOR

and you will gain in two ways. First you will reduce the work of separation—and of cleaning up afterwards. Secondly, you will get ALL the cream—all the time!

Write for the big, free book, showing the various models of Superior Separators and how and why they excel machines costing almost double. The book is free. Write for it to-day!

THE ONTARIO MACHINE CO., LIMITED

18 Bloor Street East

TORONTO

Facts To Know When Buying Cross-Cut Saws



The name "Simonds, Crescent Ground," on a cross-cut saw means that that saw will cut 10 per cent. more timber, same time and labor being consumed, than any other brand of saw made to-day. This we guarantee.

This is a broad statement, but one which we stand behind. No saw has yet been returned owing to its having failed to fulfil above guarantee.

The advantage of the Crescent Grinding, in Simonds Cross-Cut Saws, is that it prevents binding in the kerf, and enables the operator to push as well as pull the saw—points experienced sawyers appreciate.

Simonds Steel is the only steel which we are sure will take a temper to hold a cutting edge longer than the ordinary saw.

Always buy a saw with a sharp cutting edge—not a soft saw—because the former lasts longer and keeps its edge better.

The illustration shows a Simonds Cross-Cut Saw, No. 325, with a hollow back, instead of a straight back.

When you buy a saw, it will pay you to get a Manufacturer's Brand Saw, with the name "Simonds" on the blade, at about the same price as you will pay for a low-grade Special Saw.

Ask your dealer for the Simonds Cross-Cut Saw, and write direct to the factory for further particulars.

Simonds Canada Saw Company, Limited
MONTREAL, QUE.

Vancouver, B.C.

St. John, N.B.

The former lasts longer and keeps its edge better.

WRIGLEY'S

Largest Selling Gum in the World

Hot work on a hot day makes a man appreciate the delicious, cooling, lasting taste of mint!

WRIGLEY'S comes in two mint flavors: Spearmint and Peppermint.

Always fresh, full-flavored and clean in its moisture-proof package.

The WRIGLEY way is to make it right and seal it tight.

On sale in your town. Send for free copy of funny "Mother Goose" book in colors by the quaint Spear-men.

WM. WRIGLEY JR. CO. LTD.
Wrigley Building
Toronto, Ont.



MADE IN CANADA

Allays thirst
Protects teeth
Helps appetite
and digestion



Wilkinson Plows

THE oldest line of steel beam plows in the Dominion, made in the old Wilkinson Plow Co's factory, by old Wilkinson Plow Co. experts—every one of them men who know their business. It is the standard line of plows and includes 25 or more styles to choose from. U. S. S. Soft Center Steel Moldboards, highly tempered and guaranteed to clean in any soil. Steel beams, steel landsides and high carbon steel couler. Clevises can be used either stiff or swing. Each plow is fitted especially with its own pair of handles—rock elm, long and heavy and thoroughly braced. The long body makes it a very steady running plow. Shares of all widths—specials for stony or clay land.

General purpose, light, medium, and heavy, side hill, sod, drill or one horse plows

The plow shown turns a beautiful furrow, with minimum draft and narrow furrow at finish. Ask for new booklet.

The Bateman-Wilkinson Co., Limited
411 Symington Avenue, Toronto Canada

Repair for all Wilkinson Plows

Do YOUR DITCHING

With a **Martin DITCHER & Grader**

Does the work of 50 men in one day—Every farmer needs one—Pays for itself by its first day's work.

Preston Car & Coach Co. Limited
97 Dover St., Preston, Ont. 1855

When writing please mention this paper.



L.I.

LONDON, ONTARIO, AUGUST 10, 1916.

1246

EDITORIAL.

The fewer the fences the scarcer the weeds.

Provide shade for the pigs in the paddock.

A change of pasture now and then helps to push the lambs along.

The calves must have water as well as milk. Their troughs should be well supplied.

Sometimes we wonder who is the more "independent" the farmer or the hired man.

Pastures are dry; the heat is intense; the stock require plenty of salt and an abundance of water.

There is an old saying, "a wet seeding a dry harvest." For Ontario, at least, 1916 holds the record.

Those who have been longing for an "old-fashioned" summer should have been real pleased with July.

In a dry spell is a good time to kill weeds, but they will not die without an effort on the part of the cultivator of the land.

Drained land stood the spring downpours best, and the mid-summer drouth has not so injured the crops on the tiled fields.

Turnips and late roots got a poor start. It will require extra cultivation to bring them on properly. Do all possible with the horses.

It always pays to let the grain get dry in the field before drawing, but when it gets fit to go into the barn a safe policy is to draw it at once.

These are the days when the fruit and vegetables from the farm garden make it easier for the housewife to get the meals and add to the appetizing and healthful nature of the spread.

The man who kept some old grain in his bins may have reason to feel like patting himself on the back this year, not because of an enhanced price but because he will have more good feed for next winter.

Haying is over and we haven't heard anyone in Ontario complaining of it being a "light" crop. With ideal weather for harvesting it the barns and lofts of this old province probably never before held so much really choice hay.

Do not stop cultivating the corn; keep at it as long as the horses can make their way through it without injury to the crop. When two horses can be no longer used go through once or twice with the one-horse cultivator or scuffer.

The Hamilton munitions manufacturer who returned profits made on munitions to the government, for use in patriotic work, set an example which many Canadians might emulate. War profits, if devoted to the winning of the war, no matter what their source, would be a great step toward peace.

The Farmer Misrepresented.

Agriculture, admittedly the most important industry of the country, on the products of which all others so largely depend for sustenance, is insufficiently represented in the halls of the parliament of Canada. Too few representatives are drawn from the sturdy ranks of those occupied directly in farming. It may be claimed that most of the best men in other industries and the professions came originally from rural homes, but a long-established and prevailing system of public education and personal interests have identified them with the concerns of cities and towns. A similar mischievous condition of affairs prevails in the United States. A recent research by a correspondent of the New York Independent disclosed the fact that nearly three-fifths of the members of Congress are lawyers. In other words, about sixty per cent. of the members of Congress are chosen from a group comprising less than one-half of one per cent. of the gainfully employed males of the country. On the other hand only three per cent. of the membership of Congress were ever previously farmers, although thirty per cent. of the gainfully employed males of the country are engaged in that occupation. The chance of a lawyer going to Congress is apparently twelve hundred times as great as that of a farmer. Classified under the heading of "Business" appear about one-sixth as many Congressmen as under the head of "Law." Journalism has still less, and there is a scattering number of "others." In short, concludes the writer, Congress is misrepresentative with too many lawyers and not enough farmers and other folks. In the meantime the man of the soil is occasionally patted on the back and told he is a fine fellow, but does not know what is good for him and had better let other men look after his affairs in Congress or Parliament and the spending of his money. With the elimination of mischievous partizanship and more capable men drawn from the ranks of the farm in parliaments it is tolerably certain that public business would be conducted with greater regard to honesty and economy, and we should see fewer interloping grafters helping themselves to a million dollars of the people's money, and that too during times of the nation's greatest trial and most pressing needs.

Fire—Friend and Foe.

The terrible toll of human life and property taken in the recent disastrous fire which swept through Ontario's clay belt serves once again to impress upon the people of this country the importance of adequate fire protection in the great wooded areas so valuable, and which it is so necessary to conserve, to say nothing of the great and most terrible loss of human life. Further means of fire protection should be taken. The Government should speedily look into the matter of more fire rangers, and an all round more dependable system of prevention. But governments cannot do it all. The settler, of course, is anxious to clear his land. Fire is alike his best friend and worst enemy. It is his good servant but hard master. He "burns off" to hasten clearing, and in a dry time his little clearing fire may become the destroyer of his home and family, together with the homes and families of scores and hundreds of other settlers and thousands of dollars property loss. The recent disaster should teach all those who have occasion to use fire for clearing up that care is of paramount importance. Most of us have had some experience with a small fire which grew larger and nearly, if not quite, got beyond control for a time, but few have any adequate conception of the awfulness of a stretch of flame nearly 200 miles long swept ahead at times

at the rate of 60 miles an hour by the rushing of air caused by the heat, and licking up everything in its path. Slashing and dead wood, brush and dry grass all aided it on its way of destruction, and the valuable forest, the farm home, the crops, the little towns and the people perished. We know, it is a difficult matter to prevent forest fires in a country like the Hinterland of Ontario. The light woods of the clay belt are great food for flames quickly and readily devoured. Without burning the whole area over, which would be a tremendous waste of valuable pulpwoods and timber, fires must occasionally occur. It is necessary that prospector and settler co-operate with an increased number of fire rangers to keep the number of fires down, and to limit the extent and damage to very small areas. Each settler should also take some precautions to preserve life on his own place in case fire should break out. In the meantime something should be done to reinstate those who have survived the disaster in new homes on their holdings. The settlement of the Northland must go on, and those who are willing to return to their burnt homes should be aided and encouraged to do so, for they know the country best and are deserving of every consideration.

Give the Farm a Name.

A farm name is not essential to good farming, but it does add dignity to the place and should inspire the owner to do his best. Some farms have a name but it is never made known to the public. They might be called anything judging from appearance, but many of the well-kept places have the names painted in large letters on the end of the barn facing the highway, or in a conspicuous place near the road gate. The mere fact of the name being there may have nothing to do with the condition of things about the place, but in many instances the public draws the conclusion that the farmer and his family are endeavoring to keep the farm worthy of the name. A suitable name should be chosen. It may be an historic or poetic name, but one that is indicative of some special feature of the farm is preferable. Willow Grove, Maple Lodge, The Pines, etc., convey the idea of trees growing in clumps or in long rows about the place, and the traveller has a mental picture of the farm and would recognize it if driving past a second time, even if the name was not visible.

The name is a means of advertising the products of the farm. Every pound of butter, carton of eggs and box of apples should be stamped with the farm name. Consumers know a good article when they get it, and ask for a certain brand continually. This is also an incentive to the producer to grade his products and never market anything that is not as represented. The name could be included in the pedigrees of registered stock bred on the farm, and so serve as a connecting link between farm and stock.

There is always a desire to keep the farm in good order when the owner is aware that the travelling public can readily see who lives there. Every man has a certain amount of pride and an endeavor is usually made to have the farm worthy of its name. The buildings are kept in repair with the grounds around neat and tidy. The name visible, is often responsible for greater care being taken in keeping weeds under control, fences in repair, the furrows plowed straight, the implements under cover, when not in use, etc. In short it tends toward better farming. Every farm should have an appropriate name painted in large letters and placed in a conspicuous place. The travelling public like to know who lives on certain farms. The name on the mail box helps out a little, but on those the lettering soon becomes blurred.

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.**—Single insertion, 25 cents per line, agate. Contract rates furnished on application.
4. **THE FARMER'S ADVOCATE** is sent to subscribers until an explicit order is received for its discontinuance. All payments 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.

Should a Judge Give Reasons?

The prime consideration in connection with a fall exhibition, large or small, is or should be its real educative value to exhibitors and spectators. We grant that a fair is a good place to go to have a good time, to meet friends, and to improve social conditions, but the major part of the exhibits are always of an educative as well as of an attractive nature. The special displays put on by various firms taking space in the buildings are educative. Even the attractions in front of the grand-stand are enlightening, and all the classes and sections devoted to the products of the farm, if properly exhibited, should be of great value to the farmer anxious to improve and increase his output, and to the city dweller desirous of having as good a knowledge of agriculture as is available under the circumstances. "The Farmer's Advocate" has had occasion to criticize the manner in which some of the exhibits from the farms have been kept in the background at former large exhibitions, believing that if it is worth while to give prizes for exhibits and worth while for producers to take pains to perfect a product to the show-ring or prize-winning point, it is essential that the said product, whether it be apples, potatoes, pigs, sheep, horses, cattle or what not be displayed to best advantage. Of course, the only time to see the stock to good advantage is when it is being judged. With heat and flies and strange conditions, most of the stock must be kept blanketed and as quiet as possible in the stables. But in the ring it must strip for the judge, and the judging is where the greatest interest and value is for the person who would learn how to improve. Obviously a judge, if he knows his business, has a reason for his placing. If he hasn't a reason for awarding as he does he is either "up in the air" or is an incapable judge. The exhibitor and the spectator have a right to know the judge's reasons where close decisions are made, or, as a matter of education all the way around. If a man asks a judge why he makes a certain placing he usually gets a suitable and free explanation. The judge is generally only too ready to help all he can. If an exhibitor is de-

sirous of kicking up a row or is endeavoring to use influence or argue with the judge he shouldn't be listened to, but if he is just after information and does not question the judgment he is entitled to it. The spectator is also entitled to an explanation. The Ontario Provincial Winter Fair Board thought so much of the "reasons" feature of their live-stock department, that in beef cattle, at least, the judge, after placing the entries, addressed his reasons to the galleries and ring-side, in a loud voice, going over the cattle one by one. And yet we find this clause in the prize list of one of Canada's largest exhibitions among the instructions to judges:

"Judges are particularly requested not to argue with exhibitors regarding the merits or demerits of any article examined by them, and on no account to give reasons upon which they have based their decisions."

We quite agree that arguments should not be allowed or indulged in. Good judges avoid such. But why should a judge not give reasons when asked in a gentlemanly manner? True, most judges at fairs are overworked in an endeavor to keep up with a fast schedule, and often a judge is called upon to place too many breeds in one day. Time for reasons is limited. More satisfactory work would doubtless be accomplished with a judge for each breed in horses, cattle, sheep and swine at the larger fairs so that judges would not be so hurried. But to be fair to the judge, to the exhibitors and to the spectators reasons should be given when asked for, and we feel sure that the paragraph here quoted was an oversight upon the part of the Fair Board responsible for it. The way it reads, a judge who lived up to the regulations could not say a word to justify his placing. If the show is to be educative then the whys and wherefores must be made easy for the public to grasp. Surely there are better arguments for making reasons on placings known than for "on no account" giving them. It is a pity some means of making these reasons known to all who see the exhibits could not be devised. Fortunately Canada has a large quota of competent judges. An incompetent would be in his glory under such a clause. He would not require a reason for anything. A good judge is desirous of helping exhibitors and spectators to get the desired type in whatever he may be judging. He cheerfully gives reasons where properly asked. We think he should not be prevented from doing so on any account.

The Need for Consolidation of Rural Schools.

BY SINCLAIR LAIRD, DEAN OF THE SCHOOL FOR TEACHERS,
MACDONALD COLLEGE, QUE.

Rural schools have never received the attention they deserve, though rural education is a perplexing and important problem. City schools can take care of themselves; they obtain public and professional interest and support. They are well organized and supervised; they draw taxes from a highly assessed and valuable community, and are a comparatively small burden on the local people. Monster city schools look well in photographs and embellish the annual reports of our Ministers of Education in every province. Their large, airy, well-lighted class-rooms are a credit to the architect and to the public. The children who have the good fortune to attend them have all the educational aids that money can procure. They learn their lessons at comfortable desks, in pleasant surroundings and with uniform regularity. Classes are well graded, and pupils in each class are nearly the same in age and attainments, though perhaps not in ability. Their teachers are well paid, highly qualified, professional ladies and gentlemen, whose work is well done, well organized and closely supervised. In a city like Montreal where promotions are made twice a year, no child is needlessly retarded, and if promotion cannot be gained, the loss is for five short months till the work of the half year is covered satisfactorily and success obtained. With all these advantages the money cost is very low in proportion, and the education taxes fall lightly on the shoulders of the taxpayer in our cities and towns.

Why cannot the country child receive as good an education as the city child? What has a country boy done to be deprived of the right to have his mind trained and developed? Why should a country pupil be expected to sit in discomfort and endure teaching from inexperienced and less highly qualified teachers than he would have in the city? Of course, he does not desire and nobody else desires for the country boy, an education that will be exactly the same in every respect as the city boy's school course. But it should certainly be as good, and should be provided in as neat and pleasing surroundings. His curriculum should be different in its content, and in the emphasis laid on its different parts, but it should be as sound, and as effective in making a man of him

in adjusting him to his community, and in fitting him for his livelihood and for the battle of life.

The brightest part of this situation is that it can be remedied if our farmers care to exert themselves and get rid of their prejudices. The rural school and the rural community have been neglected, and the farmers are partly to blame for this gradual deterioration under modern circumstances. But the rural school difficulties can be remedied, or, at least, ameliorated. We must not make the mistake of supposing that the whole problem of rural depopulation will be solved by improved rural schools, for the rural school is only one small part of a larger problem. A change has occurred in the needs and conditions of all rural life, and the school problem is intimately connected with the other rural problems.

The first step, however, in the improvement of school conditions is consolidation of rural schools. This has been a difficult reform to introduce, and in Eastern Canada has seldom come spontaneously from the local communities themselves. It has had to be demonstrated by public-spirited benefactors like Rittenhouse and Sir William Macdonald. The farmers have not shown their usual enterprise and initiative in this matter. Even when stirred up by example they cling to the obsolete "old red school-house" near home. They have a mistaken idea that an inefficient school near the farm enhances the value of their property. Perhaps they do not realize that the local ungraded school is a failure, and fails because it has not made the same progress as its surroundings. What farmer would make a living to-day if he lived according to the usual farm practices of his grandfather? Would he be content to hoe his roots, plant his corn by hand, cut his grain with a scythe and thresh it with a flail? His work is still hard; it is constant and continual, but his bodily labor is lightened by machinery and new, up-to-date implements. He can cultivate more ground and raise more crops with less expenditure of bodily energy and with more success and profit. Yet the rural school has made no such corresponding advance. Few improvements have been made except in the curriculum and in the inspection every year. Even the inspector's visit is more concerned with the records, attendances and other statistics on which to base his recommendations for the government grant. Of course, there are large-hearted servants of the public whose ability is devoted to the uplifting of the schools, and whose services are unselfishly given to improvements in teaching, in school accommodation, and in the consolidation of school resources. But there are many who are mere hirelings, whose duties are done when their statistical returns are made.

Perhaps the best way in which to consider the value of consolidated schools is to compare them with modern cheese and butter factories to which farmers now pin their faith. To save themselves the embarrassment of collecting and separating their own milk, churning their own butter and making their own cheese, they unite in sending their supplies daily to the nearest cheese factory. At the factory the most improved and sanitary machinery and equipment are installed; dairy produce can be manufactured to better advantage with uniformity of product and regularity of success. What is more, the products can be marketed with greater ease in greater quantities and bring a higher price. The milk and cream are paid for, monthly, according to the quality as denoted by the tests, and these monthly cheques should be a constant reminder to the farmer of the value of co-operation and consolidation of interests. This organization of effort manifests itself in numerous other agricultural directions, and in Wool Growers' Associations, which this year in the Province of Quebec were able to grade their wool and sell the best grades for 42 and 43 cents a pound as compared with the prevailing jobbers' best price of 35 cents a pound. Co-operative seed purchasing is practiced likewise to advantage.

Now, why should the farmer fail to see the benefit of rural school co-operation on a larger scale? He sees clearly that he cannot afford to keep a well-equipped cheese factory on his own farm, and also that three or four families would likewise be unable to support a satisfactory plant. But by a larger combination the venture succeeds, and his returns are distributed with fairness for value received, with promptness and regularity. The milk or cream is collected by a common van every day, and the cans are returned in the same way.

The school case is an exact parallel. Small, inefficient rural schools are too numerous to be properly equipped, properly staffed, or well attended. They do not meet the needs of modern conditions and should be scrapped at once. Should a kindly providence secure their destruction by fire, lightning, or earthquake, it would not pay to rebuild them. But it would pay to unite the school districts and build one satisfactory school instead of a lot of small, scattered and unsatisfactory ones. Then a school of two, three or even four rooms could be built. Modern desks and blackboards could be introduced, and newer methods practiced in teaching. It is never profitable to keep up one school and pay for one teacher to teach four or nine or eighteen pupils. It stands to reason that three schools of that size could be combined and still be taught by one teacher. Nine of them could be united under three teachers, and each teacher would then only have thirty-one pupils in her class, and in these classes there would not be more than two or three grades to supervise. At the present time in an ungraded school there may be six or seven grades among the dozen pupils

and in fitting
e of life.
is that it can
ert themselves
rural school and
ected, and the
dual deteriora-
But the rural
least, amelior-
e of supposing
population will
for the rural
arger problem.
and conditions
n is intimately
ems.
mprovement of
rural schools.
roduce, and in
spontaneously
s. It has had
ed benefactors
cdonald. The
centerprise and
stirred up by
ld red school-
aken idea that
nces the value
ot realize that
d fails because
surroundings.
ay if he lived
of his grand-
is roots, plant
the and thresh
it is constant
is lightened
lements. He
ore crops with
d with more
ool has made
improvements
m and in the
e inspectors'
s, attendances
recommenda-
course, there
whose ability
ls, and whose
mprovements
d in the con-
ere are many
re done when

in attendance. The teacher thus has to teach about thirty lessons in the six hours of school work, and each pupil gets just one-sixth or one-seventh of the attention that he ought to get and would undoubtedly get in a school which had one teacher for each grade.

The cost of conducting the combined school is less, indeed much less than it would be to carry on the tiny, ungraded schools with small attendance. The upkeep of the consolidated school, once built, would be less, as the heating cost alone would be so much less that the money saved would be interest on a considerable amount of capital. The purely educational cost then is less than for the maintenance of a larger number of ungraded schools. But there still remains the cost of transporting the pupils from their homes to the consolidated school. Naturally the distance is greater than in the former cases, and the difficulty must be overcome by providing some form of public or private transportation. Wherever the roads are numerous and good, the site for a consolidated school should be at the centre of a number of intersecting roads. Usually a village is so placed, and if possible a village should be selected, for the school will then be easy of access, conveniently near shopping centres and the church, and may become a suitable centre for community social events. In one actual case the school is the post office, public library and town hall, but then this is almost ideal and is not to be expected suddenly as the prevailing type, though possibly it may be accepted as some sort of ideal towards which one form of consolidated school should grow.

In some parts of the Western United States and in our prairie provinces, the children arrive at school on their own ponies in the family sleigh or wagon. There are stable facilities and carriage sheds for such private cases. In other instances, public conveyance is provided at the expense of the school district in the shape of large vans in summer and sleighs in winter. Sometimes these are the property of the school, and sometimes of the contractor. The contract is let by tender and is paid for by the month. Routes are arranged for, and parents bring the children to the nearest point of the route and return for them at night. Where this is in force it sometimes costs as high as \$75 a month when the contractor provides his own wagon, and sometimes \$55 a month when it belongs to the school trustees. This, however, when spread over twelve or fifteen or more children only averages five dollars a month—a sum which many city children are obliged to pay in cities for their street car fares.

However, there is no disguising the fact that the only expensive point in connection with consolidated schools is public transportation by van or sleigh. Otherwise the saving of expense is considerable, and when one contemplates the benefits due to larger attendance, regularity of attendance, better grading, better teachers and more efficiency generally, the disadvantage of transportation is outweighed by the advantage of better schooling, more social mixing, greater companionship and competition, and more progress in studies.

The transportation difficulty should not prove an insuperable one to farmers, for they have to arrange for the transportation of their milk and cream daily to the factory. The milk cannot walk even in good weather, so producers arrange for a common wagon to cover a district route. Unfortunately children can be made to walk considerable distances in good weather, and have to do so to reach our present rural schools. In winter or in stormy weather they cannot walk and so are kept at home, to the detriment of their education and the ruin of the school's efficiency. Rural school attendance is always poor, but consolidated schools which have transportation as part of the system have solved the problem of regular attendance, as children can attend in comfort, ease and without fatigue whether the weather is foul or fair. In some cases the average daily attendance is 90 per cent. of the enrolment, whereas even in some city schools 75 per cent. is considered a very good average.

There is no gainsaying the advantage of a consolidated school, and as our present scattered rural schools are a century behind the times they are bound to be cast aside, just as the tallow dip, the hoe, and the flail have disappeared before the electric light, the cultivator and the reaping, binding and threshing machines. The well-known shrewdness of our farmers, who like to get value for money, has not been exhibited in their attitude to rural school problems. Perhaps their bargaining instinct is the obstacle which prevents them from perceiving the great though invisible advantage of better schools for their children. This advantage is not immediately seen, but would soon prevent many of our rural dwellers seeking the city in search of better educational facilities for their families.

From this point of view it is impossible to reform our rural schools. What we have to do is to work for their complete reorganization. We need a real revolution and not a compromise or temporary reform which would be merely temporary and superficial.

Under the editorial heading "The Next Army Making" it is encouraging to find in the Toronto Mail and Empire the conviction emphasized that the supreme task of the future will be "the remoulding of soldiers into industrial workers still more efficient than they have been as warriors."

Nature's Diary.

A. B. KLUGH, M. A.

Among the caterpillars of moths there are many peculiar forms, but few are more bizarre than the larva of the White-marked Tussock Moth. This caterpillar is so quaint and beautiful that we cannot help admiring it in spite of its destructiveness. The head of this larva is bright coral red. At the head end are a pair of long, black, plume-like tufts, and at the opposite end of the body is a single tuft of dark chestnut tipped with black. On the back are four white, or pale yellowish, dense, brush-like tufts. The arrangement and relative lengths of these two kinds of tufts is shown in our illustration. Along the back, except in the region occupied by the white tufts, is a black line, and in the centre of this, on the sixth and seventh segments of the



Larva of White Marked Tussock Moth.

abdomen, are two red projections. Below this black line is a yellow stripe, and below this a pearl gray stripe, bordered beneath by a fine black line. Below this line is a pale yellow stripe. The under surface is pale green, truly a remarkable and beautifully blended color-scheme.

The surface of the body is covered with long bristly hairs, and these in addition to the tufts render the larva a very hairy object. These hairs are of service in protecting it from the attacks of birds as many species of birds have a decided objection to hairy larvæ, and most of those even which feed on hairy caterpillars themselves select smooth ones to feed to their young.

This caterpillar feeds on the leaves of trees, and while the Maples, Basswood, Horse-chestnut and Elm are the trees which suffer most from its depredations, it also sometimes attacks the Honey Locust, Cherry, Plum, Pear, Apple, Ash, Sycamore, Butternut, Black Walnut, Hickory, Oak, Birch, Willow, Poplar, Spruce, Fir and Larch.

When the larvæ have become mature they spin their cocoons in the crevices of the bark, interweaving their long hairs, and within this case they transform to yellowish-white pupæ shaded with dark brown.

The adults which emerge from these pupæ differ a great deal depending on their sex. The male is a moth with large feathery antennæ, tufted legs, and wings marked with several shades of gray and grayish-white. The female is wingless, of a nearly uniform gray and has simple antennæ.

parasitize this species. These insects lay their eggs on the caterpillars, and the young which hatch from these eggs feed on the body tissues of the caterpillar. The caterpillar sometimes dies before it can pupate, but usually pupates, but never emerges as an adult.

The simplest and most effective remedy for this pest is the gathering and destruction of the egg-masses. As the eggs are in a compact mass which is readily torn from the supporting cocoon, either by hand or by some form of a scraper, the task is easily and quickly performed. On account of the female being wingless, a tree once thoroughly cleaned will not become reinfested very soon. It should be kept in mind that only the eggs must be collected and destroyed, on account of the beneficial parasites which may occur in cocoons not bearing egg-masses. This is specially true in autumn and applies to a certain extent to spring, since it has been shown that parasites hibernate as larvæ within the cocoons of the host, and if these are collected and destroyed, it means the death of many beneficial forms.

A striking plant which is very common, especially on land which has been burned over, is the Great Willow-herb or Purple Fire-weed. This species is from three to eight feet in height, has narrow, tapering willow-like leaves and a long spike of magenta flowers, each flower being nearly an inch across.

Beginning at the bottom of the spike, the flowers open in slow succession upwards through the summer, leaving behind the seed-pods which, splitting lengthwise, send adrift the white, silky tufts each with a seed attached.

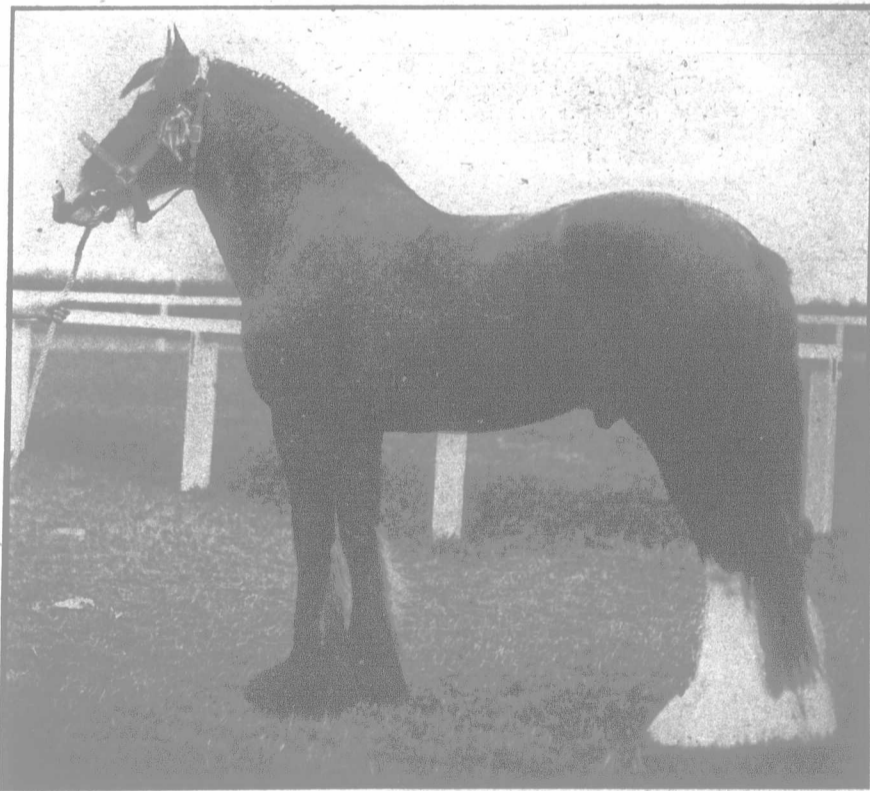
Bees are the insects which transport the pollen of this species from one flower to another. In a recently opened flower the bee comes in contact only with the stamens as the style is curved downward and backward, and in older flowers she leaves the pollen previously acquired on the stigma as the style has stretched upwards.

THE HORSE.

Size in the Sire.

The most successful and valuable sires are not, as a general thing, the largest horses of their respective breeds, and yet the breeder, especially of draft animals, must of necessity consider size an important factor in his breeding operations. A short time ago we noticed two fillies, from the same dam but by different sires. One of these fillies is a three-year-old, the other a two-year-old, and at the present time the two-year-old is nearly as large as the older filly, although, of course, may not be filled out to the same extent, or weigh as much on the scales. For

height and general growth the two-year-old will be considered a much larger filly for her age than her older sister. The dam of the fillies was a registered Clydesdale mare of good conformation and weight. The sire of the older filly was a blocky, compact horse, short-coupled and thick, showing an unusual degree of high quality bone. We remember very well having seen him show his paces at the Chicago International Show, where at special request he was brought out during the evening performance to give an exhibition, which, in flashiness, would compare favorably with that put on by the best of Hackneys. We doubt whether he ever weighed more than 1,900 lbs., possibly less, when at his best. The sire of the larger filly was a bigger, more upstanding horse, weighing 2,100 lbs., with not the same weight of body or depth of middle, but a horse which showed high quality and a fair development of bone and muscling for a horse of his scale. In the showing before a good judge



Dunure Independence.

Clydesdale stallion, champion at the Royal.

When the female emerges from her cocoon she crawls out upon it and deposits her eggs on the outside of the case. The eggs laid by a single female average about three hundred and fifty, and are deposited under a white mass of frothy matter which soon hardens and forms a very efficient protection for the eggs against the elements. The eggs hatch in late May and June, and the young larvæ begin to feed on the leaves and soon devour all but the principal veins. When these caterpillars are abundant the trees are often skeletonized, and practically defoliated. The main check on the undue increase of this species is the work of the parasitic insects—the Ichneumon Flies, Chalcis Flies and Tachina Flies. Dr. L. O. Howard, chief of the U. S. Bureau of Entomology, has found twenty-one insects which

of draft horses the heavier animal would, in most cases, win. As a sire both horses were considered successful, and left a number of valuable colts in the neighborhood where they were used. The two colts mentioned are both considered very good specimens of their breed. The larger colt will undoubtedly make the biggest draft mare, but at the present time, notwithstanding the fact that the older filly has not made such rapid growth, she would be considered the better individual. We draw attention to these two colts simply to cite an instance of what may happen in using sires of different weight in breeding work. It may be that the smaller sire was a little more prepotent than the heavier animal, because the older filly resembles her sire slightly more than does the

consider the
are them with
which farmers
lives the em-
giving their own
making their
supplies daily
the factory
ry and equip-
manufactured
product and
the products
reater quanti-
k and cream
ne quality as
thly cheques
armer of the
of interests.
in numerous
ool Growers'
Province of
sell the best
mpared with
ents a pound.
iced likewise

Small, in-
to be properly
ended. They
ditions and
kindly provid-
lightning, of
them. But
ts and build
ot of small,
en a school
ld be built.
introduced,
hing. It is
and pay for
teen pupils.
of that size
one teacher.
ree teachers,
e thirty-one
there would
o supervise.
school there
dozen pupils

younger filly, which may have been influenced to a greater extent by the dam than by the sire.

There are so many things to be taken into consideration that it is difficult to know just what to do. Each of these fillies would be considered a fair size for the breed, but the younger one, if she goes on as she has started, will surely be a bigger and more desirable heavy draft mare than will the older one, which, at present, does not show the same development for her age.

From a knowledge of these sires, which, in conformation, would score practically equal with the exception of points on size, and from an intimate acquaintance with the two fillies we would say that there was less risk in breeding to the heavier horse than to the lighter one, although neither could be criticized as a mistake, for the progeny in both cases turned out to be desirable animals. However, from the standpoint of draft-horse breeding the mating with the heavier horse gave better results. It must be noted that the stallion in question was not an abnormally large horse, and with his size he was nicely turned and showed high quality throughout. We would rather take chances on a smaller, typey sire than on a big, rough one, but with size and substance combined with quality and action the breeder cannot go wrong.

A partial estimate of the prepotency of a horse may be made from a study of pedigrees where the horse is bred in the purple or has a long line of well-known ancestors. Where such is not the case one can only go by the masculine appearance and general conformation of the animal. Like tends to produce like, and the two colts mentioned are no exception to the rule, because, while the younger filly may have been influenced by her dam to a greater extent than the older one, the fact remains that the older filly is almost a counterpart of her sire and the younger filly is more upstanding, longer, and shallower in the body as was her sire. From the appearance of the two we should say that the prepotency of the sire was marked in each individual, which goes to show that in mating the breeder can, to a large extent, control the class of stock produced.

We started out to say that it is not well to breed to too large a horse, and yet it is not advisable to select a small, under-sized individual. Horsemen have a "hunch" that one reason for the low ebb to which the light horse breeding of this country has gone is that the sires have been small, under-sized individuals, not able to put the right stamp upon their offspring. On the other hand, we know of a Clydesdale stallion in Western Ontario, which has left more good colts in his section of the country than any other horse that has ever been in it, and which would be considered by many to be a small horse, weighing possibly between 1,800 and 1,900 lbs. His colts, however, have been growthy fellows which bring high prices as drafters and for breeding purposes. But in turning to his pedigree one finds that he descended from a long line of ancestors noted for their prepotency, size and quality. To be safe, then, it is well to insist upon all the size possible coupled with the right kind of conformation and quality, backed up by a pedigree containing the names of individual animals noted for their breeding value. Never did we see a more marked example of the influence of size upon colts than upon the two fillies in question, and yet neither is too big nor too small, but ultimately the one showing the most growth will surely be worth the most money.

Size, Substance and Quality in Drafters.

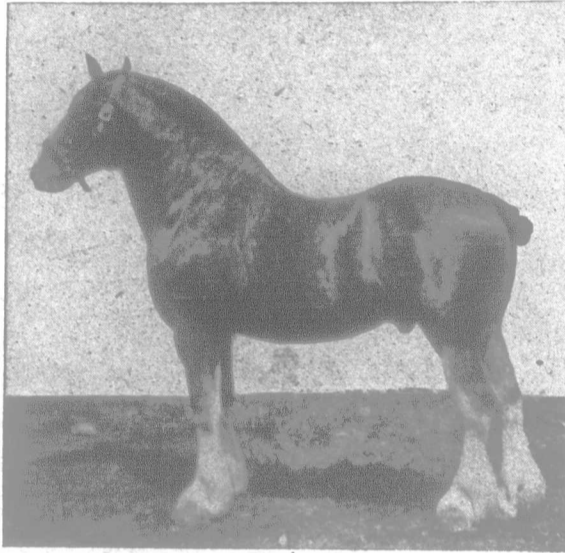
EDITOR "THE FARMER'S ADVOCATE":

On a recent trip West the writer was somewhat surprised, in talking with horsemen, to find a quite universal belief that Clydesdale horses, as now being bred and exhibited, were not showing the amount of substance they should as one of the leading draft breeds. The point was brought up in conversation with several men interested in the draft-horse business that breeding for quality, such as we now know in Clydesdales, has been carried just about as far as it can safely go unless more attention is paid to size and substance. Breeders of other breeds of draft horses accuse the Scotchman and the lover of the Scotch breed of seeing nothing in the animal but legs and feet. These he must have fine and clean of bone with the large hoof and strong prominent hoof heads, the legs showing only a fair amount of the finest kind of silky feathering. Very little attention does he pay to the body of the horse. Of course, he wants a certain amount of size, but he looks first for bone, feathering and feet. This, they claim, is the reason for the fine class of Clydesdales we know to-day. By fine we mean rather small and not up to the recognized standard of weight for a draft horse.

After discussing the point the writer began to turn over in his mind recollections of horses which he had seen during past years win at the larger shows and stand at the head of some of the strongest studs in this country, and must admit that the tendency toward fine, clean bone seems to have been carried to such an extent that the horses do not show the same scale that they once did. No horseman would care to sacrifice quality in an effort to get a big horse which would be rough and more likely to show unsoundness as the years go on, but one of the first considerations in the breeding of draft horses must be weight, and the top of the horse cannot, with safety, be entirely sacrificed to the bottom. Breeders must

aim to get sufficient weight with all the quality possible.

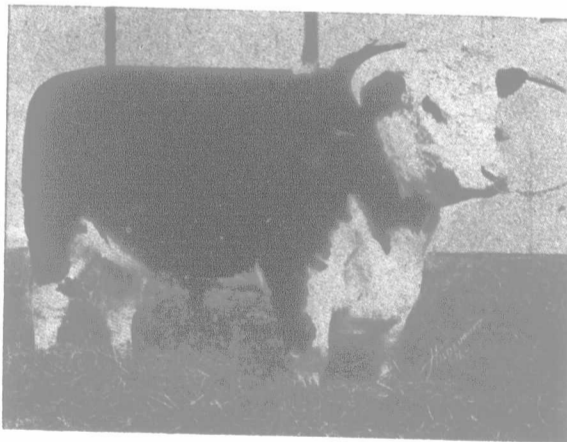
It appears that something of the same condition of affairs is being discussed in the home of the breed. The Clydesdale which wins in Scotland to-day is a vastly different animal from the horse which won two or three decades ago. The "Scottish Farmer," the leading agricultural paper of Scotland, has recently commented on this subject, and one of the leading writers has drawn attention to the change in fashion in the Clydesdales and has emphasized the influence the show-ring has in molding the type of the breed. There is no doubt but that the show-ring sets the standard for the small breeder, and even the larger breeder, the country over and what finds favor in the show-ring finds favor with the public. Clydesdale judges have put a premium on quality with the result that some claim that weight has been sacrificed in the effort to get the fine, clean bone, silky feathering, and the highest quality throughout.



Scotland's Splendor.

Champion Clydesdale stallion at Calgary Exhibition.

In England Shire breeders have been working toward a little more quality in their breed, but size, substance and draft character have ever been the important objects in Shire breeding. The "Live Stock Journal," in an article in a recent issue, commented upon the difference in the horses shown in the Shire classes and in those exhibited in the Clydesdale classes at the recent English Royal Show. The horses were judged in paddocks adjoining one another, and much discussion came up over the contrast between the Shires and the Clydesdales. Of course, the Shires had the substance and the weight, while the Clydesdales, some of which were excellent individuals with plenty of weight and substance, showed on the whole rather much quality in comparison to weight and substance. Some remarked that it was a pity the two breeds had ever been separated, that a combination of the two would be almost an ideal horse. Of course, a Shire is a Shire and a Clydesdale is a Clydesdale, and it is a satisfaction that those who are



Superior Fairfax.

A \$10,000 son of Perfection Fairfax.

breeding Shires are endeavoring year by year to improve the quality of their stock without injuring the size and substance to any appreciable extent. Clydesdale men might do well at the present to endeavor to increase the size and substance of their animals without appreciably injuring the quality and action shown by their stock. Of course, there is a tendency where more bone is developed toward a coarser quality, both of bone and feathering. A draft horse must first have power and strength, which means bone and muscling, the former of the hard wearing kind, the latter heavy and strong. He must have weight above with plenty of constitution, and body development to supply the fuel to operate the power. The smoother and more nicely turned the horse is the better he will fill the bill, but the breeder of any breed of draft horse must hit the happy medium, which means plenty of size, but not so much that the animal is coarse and yet sufficient quality but not overdone to the extent of fineness.

Breeders of draft horses, Shires, Clydesdales or Percherons, must watch carefully the development

in their breed and see to it that over a period of years extremes are avoided. At the present time the Clydesdale horse is being discussed possibly more than ever before with respect to size and draft character. If he is getting too small effort should be made to increase the size and substance through judicious breeding. If everyone is satisfied with the size of the modern Clydesdale, then breeders are justified in going ahead and breeding strongly for quality.

The subject is worthy of the thought of horsemen, for the fact remains that some of the exhibits at our leading exhibitions are sometimes rather shallow in the body, somewhat narrow and upstanding, not showing the amount of bone and muscling which they might, and considered by breeders of other breeds of draft horses scarcely up to the mark in weight and substance. Nothing can be said against their wearing quality, because their bone and feet are high unto perfection. If more weight is necessary now is the time to start toward the goal.

Middlesex Co., Ont.

HORSEMAN.

LIVE STOCK.

Constipation in Swine.

This is a condition in which the bowels fail to empty themselves and the faeces are retained and become hard and dry.

Causes.—The principal cause of constipation is improper feeding with lack of exercise. The disease is common in pigs of all ages, but probably more common in young pigs that are confined in close quarters and highly fed. In such cases it frequently causes crippling, the patients losing (to a more or less marked degree) power to move, or going lame or crippled when still able to progress to some degree. Over-feeding or feeding an excess of dry diet is a common cause, and this is especially the case when the patient is kept in close, poorly ventilated quarters and does not get sufficient exercise.

In animals that are affected with intestinal worms the condition is not unusual. In chronic indigestion constipation is a common symptom. Just before the development of diarrhoea in acute inflammation of the stomach and bowels constipation is usually noticed. Fattening animals which are kept in close quarters and highly fed for the purpose of rapid development of fat often suffer from constipation. This is especially likely to occur when they are fed largely on dry feed and receive an insufficient amount of liquids. In the winter months constipation is more common, as the animals are likely to take but little exercise, and consume small quantities of water. This is especially the case when the water that is provided for them is quite cold.

Symptoms.—The most prominent symptom is frequent but ineffectual straining in attempts to defecate. The faeces that are voided are usually dry and hard, and often coated with a slimy mucus. As the condition is accompanied by more or less indigestion, the appetite becomes poor, and the patient is very liable to exhibit symptoms of abdominal pain. In the straining efforts to defecate the patient may force the posterior portion of the rectum out through the anus, causing that condition known as "inversion of the rectum." This condition is more likely to occur in cases that are caused by the consumption of large quantities of dry feed.

In severe cases the patient becomes dull, stupid and has a tendency to remain away from the rest of the herd. He seeks some quiet corner, lies down and remains quiet, except for the occasional straining and exhibition of pain. If he be caught and examined, by manipulation of the abdomen, the hard dry masses in the intestines can often be felt through the abdominal walls, which in most cases exhibit more or less tenderness upon manipulation.

Treatment.—Preventive treatment consists in avoiding the consumption of an excessive quantity of dry food, and in arranging conditions so that the animals will be forced to take a reasonable amount of regular exercise. There should be sufficient variation in the nature of the feed supplied to avoid the consumption of too great a percentage of feed that tends to constipate. Some sloppy feed should be included in the daily diet, and, as stated, it is necessary that sufficient room be provided to enable the animals to take a reasonable amount of exercise. Lack of exercise is probably a more prolific cause of constipation than the nature of the feed consumed.

Curative treatment consists in so modifying the diet as to restore to the intestines their normal function. All dry feed should be withheld for a time, and sloppy, laxative feed given instead, as milk, shorts, middlings and raw roots. Water or milk for drinking should be plentifully supplied, and should be of such temperature that it may be partaken of freely without danger of causing a chill. If the patients are in close quarters, of course, room must be provided for exercise. This point cannot be too strongly emphasized.

In cases that have not become too well marked, the above treatment is often all that is necessary, but if improvement is not noticed in a reasonable time, say a day or at most two, it is wise to administer a laxative as 1 to 4 oz. (according to size of patient) of raw linseed oil, or Epsom Salts dissolved in warm water. It is also good practice to give rectal injections of soapy, warm water or a mixture of warm water and raw linseed oil well mixed before injection. In severe cases it is well to follow up with tonics for a few days, as from ¼ to 1 teaspoonful (according to size) of equal parts of powdered sulphate of iron, gentian, ginger, nux vomica

and bicarbonate of soda, three times daily. The safe administration of liquids to swine is no easy matter. In order to administer a drench to a pig it is necessary to put a slip rope in the mouth enclosing the upper jaw above the tusks and hold the head up so that the mouth will be on a higher level than the throat. All who have ever tried this are aware that the patient will persist in squealing. When squealing, the valve (called the epiglottis) that closes the entrance to the larynx and the wind pipe is open, hence, if fluid be introduced into the mouth, a greater or less percentage will pass down the wind pipe and if sufficient pass to occlude the calibre of the bronchial tubes it will cause death by suffocation in a few minutes. If a smaller quantity pass it will set up mechanical bronchitis, which will probably cause death in a few days. Many pigs are killed in this way.

Probably the easiest and safest method to drench swine, is to put the fluid into a bottle, and attach to the neck of the bottle a piece of rubber hose, 5 or 6 inches in length. Elevate the patient's mouth as stated, insert the rubber hose between the molars at one side of the mouth, and then the patient will chew and suck on it, and swallow the fluid without danger. Some insert an old boot-leg into the mouth and pour the fluid into it, but the bottle and hose is more easily handled and avoids waste.

The Manurial Value of One Farm's Crop.

It is interesting to know the actual relation existing between live stock and the farm, particularly with regard to the fertilizing ingredients returned to the soil and the maintenance of fertility. A 100-acre homestead situated in a district where mixed farming is practiced must have some system of replenishing the depleted stores of nitrogen, phosphoric acid and potash, which are sure to be exhausted through the annual production of grain, hay, roots and corn. For the purpose of estimating the value of the crop as manure after it has passed through the various classes of stock, let us assume that the products of the farm are sold to the herds or flocks at a straight market price. It would not be difficult to show a profit after feeding cattle, sheep or swine with the farm crops charged at current prices. Another point in favor of feeding could be brought out by the argument that it is more economical to drive crops to market in the form of finished cattle, sheep and swine, or as dairy products than in the crude form of hay or grain. However, this article is not a brief for live-stock farming, it is intended only to show the value remaining after one season's production is fed to the farm animals on the place.

Data are necessary for this purpose particularly with regard to the output of the farm and the total amount to be fed. Since the crops vary so on different holdings, we must assume a certain production, and work from that premise. The following figures are close to the average production of the general run of fairly good Ontario farms. Forty tons of hay from 25 acres; 80 tons of silage corn from 8 acres; 1,200 bus. of roots from 2 acres; 1,000 bus. of oats from 24 acres; 300 bus. of barley from 10 acres, and 150 bus. of wheat from 6 acres. We would not champion this division of the farm nor the proportion of the various crops grown. We have named the average yields on what would be considered a good class of farm in Ontario in an average season and upon these estimates we shall base our deductions.

This yield figured on the ton basis would be approximately as follows—hay, 40 tons; silage, 80 tons; roots, 36 tons; oats, 17 tons; barley, 7½ tons; wheat, 4½ tons. In the majority of cases hay is mixed, clover and timothy, so we have calculated it as 20 tons clover hay, and 20 tons timothy hay. Similarly we have divided the roots into turnips, rutabagas and mangels. From the grain crop there would be a certain quantity of straw, the amount of which would vary immensely on different farms and according to the season. We have calculated that 1¼ tons of oat straw per acre would be a fair average, likewise one ton of barley straw and 1½ tons wheat straw.

In order that the reader may arrive at some conclusions regarding the fertilizing ingredients contained in farm crops we herewith include the following table selected from "Feeds and Feeding." Nitrogen, phosphoric acid and potash are the chief ingredients so necessary for the growth of crops, and about these the whole fertilizer question hinges. These three are the chief constituents considered in the table.

Fertilizing Ingredients in Farm Crops.

Product	Fertilizing Ingredients in 1,000 Pounds		
	Nitrogen	Phosphoric Acid	Potash
Clover hay.....	Lbs. 20.5	Lbs. 3.9	Lbs. 16.3
Timothy hay.....	9.9	3.1	13.6
Turnips (rutabagas).....	1.9	1.2	5.0
Mangels.....	2.2	0.4	2.2
Silage.....	3.4	1.6	4.4
Oats.....	19.8	8.1	5.6
Oat straw.....	5.8	2.1	15.0
Wheat.....	18.7	8.5	5.2
Wheat straw.....	5.	1.3	7.4
Barley.....	18.4	8.5	7.4
Barley straw.....	5.6	1.8	12.0

This information forms the basis for calculating the manurial value of the crop after being fed to live stock.

It is estimated by investigators that, on the average, 80 per cent. of the fertilizing elements contained in feeding stuffs will be voided by the animals. This, of course, is only an average as some classes of live stock will utilize and incorporate into the animal system a greater percentage than others. Regarding this, Prof. Henry in "Feeds and Feeding" says: "The mature horse at work is merely repairing his body tissues as they are broken down, therefore, no nitrogen or ash (contained in the phosphoric acid and potash) is stored in the body, but all the nitrogen and practically all of the ash is voided in the manure. A negligible amount of ash is excreted in the perspiration. With fattening animals, whose bodies are nearly or quite matured, but little of the fertilizing constituents supplied in the feed are retained in the body, over 95 per cent. of both nitrogen and ash being voided by the fattening ox and sheep. With the pig, fattened while not yet matured and storing nitrogen in his lean-meat tissues, about 85 per cent. of the nitrogen of the feed is returned in the manure. As milk is rich in nitrogen and ash the cow in milk voids only about 75 per cent. of the nitrogen and 89 per cent. of the ash contained in her feed. The young calf growing rapidly in bone, muscle and body organs voids only 30.7 per cent. of the nitrogen and 45.7 per cent. of the ash in the feed, storing the balance in the body. Considering the proportion of young animals, and of those giving milk on the average farm, it has been estimated that from the feeds supplied farm stock about 80 per cent. of the nitrogen, phosphoric acid and potash is ordinarily recovered in the faeces and urine."

With this data we may now calculate the manurial value of the farm production after being fed. Taking 80 per cent. of the fertilizing ingredients of the farm crops as the percentage voided, we arrive at figures such as set forth in the accompanying table. It has been assumed that all the straw from the grain passed through the farm animals. This, of course, very seldom occurs, much of it being used for bedding purposes. Calculating on this basis the entire output, as estimated earlier in this article, we arrive at the following table.

Product	Amt.	Fertilizer Voided		
		Nitrogen	Phosphoric Acid	Potash
	Tons	Lbs.	Lbs.	Lbs.
Clover hay.....	20	656.	124.8	521.6
Timothy hay.....	20	316.	99.2	435.2
Silage.....	80	435.2	204.8	563.2
Mangels.....	18	63.3	11.5	63.3
Turnips.....	18	54.7	34.5	144.
Oats.....	17	538.5	220.3	152.3
Oat straw.....	30	278.4	100.8	720.
Wheat.....	4½	134.6	60.8	37.4
Wheat straw.....	7½	60.	15.6	88.8
Barley.....	7½	211.9	97.6	85.2
Barley straw.....	10	89.6	28.8	192.0
		2838.2	998.7	3003.0

It will thus be seen that after feeding the crop of the farm and deducting 80 per cent. from the fertilizing ingredients, allowing the other 20 per cent. to be utilized by the animals, we still have the remaining 2838.2 lbs. of nitrogen, 998.7 lbs. phosphoric acid and 3,003 lbs. potash voided as manure. There will, of course, be a certain amount of waste depending upon the care the manure receives, but as the major part of these feeds will likely be fed in winter, when the wastage is smallest, the greater part of it should be conserved. By spreading the manure

daily on the land the minimum amount will be lost to the farm.

Before the war, when purchased in the form of chemicals or ordinary commercial fertilizers, nitrogen was costing approximately 20 cents a pound, while phosphoric acid and potash were each worth about 5 cents per pound. On this pre-war basis the nitrogen contained in the manure would be worth \$567.64, the phosphoric acid would be valued at \$49.93 and the potash at \$150.15, making a total of \$767.72.

From these figures a farmer can arrive at some idea as to the importance of feeding his farm crops on the place. It is not difficult at the present time to charge the animals the market price for the products of the farm, and still return a profit. Were it sold to the trade in the form of hay or grain this \$767.72 would be given gratis to the purchaser. There are some soils with an inexhaustible supply of fertility, but they are rare and the figures stated show to what extent a man who sells hay and grain off the farm is depreciating the value of his homestead.

No mention is made of the effect produced by adding so much organic matter or humus to the soil. This would be worth hundreds of dollars annually on heavy clays or light, sandy land. Furthermore, manure teems with bacteria, which are very essential in the breaking up of plant food into available forms.

Profits from Skim-milk-fed Hogs.

Included in the last annual report of the Secretary for Agriculture for Nova Scotia is the outline of an experiment with feeding swine, conducted at the Agricultural College, Truro. These pigs were fed in the orthodox way, but showed very good profits indeed. Six pigs from a cross-bred sow were selected for the experiment. They were fed skim-milk and middlings from the 21st of August to the 22nd of January, 154 days. During the last two months some mixed grain raised on the farm was fed in addition to the middlings. They also ate a small amount of oil meal and some mangels. The total feed eaten in a hundred and fifty-four days is given in the following table:

Middlings, 1,100 lbs. at \$1.40 per cwt.....	\$15.40
Mixed grain (ground), 510 lbs. at \$1.75 per cwt. 8.92 (Oats, barley, wheat, peas)	8.92
Rye (ground), 200 lbs. at \$1.40 per cwt.....	2.80
Oil meal, 75 lbs. at \$2 per cwt.....	1.50
Mangels, 20 bus. at 15 cents per bus.....	3.00
Skim-milk, 10,200 lbs. at ¼ cent per lb.....	25.50
Cost of feed.....	\$57.12
Cost of pigs at six weeks old at \$3 each.....	18.00
Total cost.....	\$75.12

The total live weight of the pigs on January 22 was 1,320 lbs., or an average of 220 lbs. each. The poorest pig in the lot was killed, and it dressed out over 75 per cent of its live weight. Taking 76 per cent. as a fair average it was found that the 1,320 lbs. of live weight would give 1,003 lbs. of dressed pork. At the conclusion of this experiment pork was worth 12 cents per lb. at Truro, N. S., which would make the 1,003 lbs. worth \$120.36. Subtracting the total cost of \$75.12 from \$120.36, a net profit of \$45.24 remained. No account of labor was taken, neither were the pigs credited with the manure made. The cost of butchering deducted from the price received for the pork would amount to about \$1.00 per pig, and would reduce the profit to about \$40.00. This feeding experiment shows the possibility of



On a Hot Day in August.

making pork at a profit where a large amount of skim-milk is available. The farm superintendent, John M. Trueman, under whose direction the test was conducted, draws attention to the fact that in addition to the net profit of \$40.00 there was sold to the pigs at a good price 10,200 lbs. of skim-milk, that brought \$25.50, also 20 bushels of mangels for \$3.00, and \$8.92 worth of mixed grains grown on the farm. This makes a total return to the farm, outside of grain bought, from the six pigs amounting to \$82.54.

THE FARM.

Old Glengarry Optimistic.

EDITOR "THE FARMER'S ADVOCATE":

I've been thinkin' that maybe ye wouldna' mind gin I were tae send ye a sort o' wee report as tae hoo things are gaein' in this part o' the country this year in the matter o' crops an' weather an' so on. Auld Glengarry can generally gie a guid account o' itsel', an' judgin' by present appearances this year will be no exception tae the rule. I dinna' think we will hae to apply for Government aid for anither twelve months onyway.

Like the rest o' the province we had mair than we wanted o' wet weather frae April till near the last o' June, but we a' worried through it aifter a fashion an' the maist o' the farmers finished their seeding operations, though some o' them were what ye might ca' a wee bit

late wi' their corn. Hooever, the present warm weather is bringing it on in guid shape an' gin' the frost doesna' come ower early this fall we may fill oor silos as usual, an' no' hae tae restrict the coos tae a hay an' strae diet as we used tae a few years back. Indeed it looks noo as though we could only afford tae gie them straw on Sundays an' ither holidays, this comin' winter, for late grain is unco' short in the maist o' cases owin' tae the dry weather at the present time. What was put in early is no' sae bad though.

But it's the hay crop we're a' braggin' about the noo. Ilka chap ye talk tae has a yarn o' his ain about his record-breakin' field o' clover or timothy. Mair loads hae been taken off less ground than at ony time since the year one, I guess. One mon wis tellin' me the ither day that his hay wis sae heavy that he couldna' rake it, sae he just pit the hay-loader intae it as the mower left it, an' though it wis a pretty lang job, he finally got it intae the barn. It reminds me o' some o' the stories that I used tae hear the auld folks tellin' about the hay they used tae raise here sixty or seventy year back. They had tae hang it on the fences tae dry it. Onyway it looks as though ony surplus frae oor farms this year wad be in shape o' hay. I heard a chap sayin' lately that he guessed the soldiers wad hae tae eat hay this year gin they were dependin' on us for their grub. Perhaps, hooever, we may be able tae spare other things as weel, later on. Present prospects for the potato crop are no' sae bad, an' I'm thinkin' the year's production o' cheese will be up tae onything in the past. The pastures hae been better than usual, an' the occasional showers we hae been getting lately are keeping them frae dryin' up entirely. I heard an auld

growler sayin' the ither day that the milk wis gettin' small an' the price o' cheese wis gettin' less, an' his face, while he wis talkin' wad mak' ye think there wis naething ahead for the farmer but starvation. But the price for cheese is still around sixteen cents, sae I dinna' think we should suffer mair than we did twenty years back when it used tae sell for six. But then I ken that guid 'crops an' high prices never converted a grumbler frae the error o' his ways. He's a grumbler tae the last. On the ither hand, hooever, we're glad tae say that there are those that poor crops an' hard times dinna' seem tae worry, an' they're juist as weel pleased wi' a sma' crop as a big one, when it was the best they could possibly get. In ony event we hae no need tae dae muckle kickin' in Glengarry an' hereabouts this year. There's plenty for man an' beast an' a guid market for a' we have tae spare, sae what mair could we be askin'? Some o' us could dae wi' a wee bit mair help than we hae in harvestin' oor crops, I'll admit that. But gin the British Government is employin' female labor in the factories, an' at ither jobs that used tae be done by men, maybe we can get ower oor difficulty by grantin' tae oor women the richt tae an equal share o' the outside wark on the farm. It might be worth tryin' onyway as a sort o' war-time experiment, until 'such time as "the boys come hame." Of course it must be done wi' the ladies' consent. I'm a firm believer in the volunteer system. Conscription doesna' wark on the farm. Co-operation is a word that describes a better condection o' things, an' when we get that oor troubles will a' be over. At least that's what they tell us.

SANDY FRASER.

Canada's Young Farmers and Future Leaders.

Results from Treating Oats for Smut

EDITOR "THE FARMER'S ADVOCATE":

In Ontario and other provinces of the Dominion thousands of bushels of grain (especially oats) were destroyed by smut in 1915. This was by far the heaviest loss we ever had from this great grain destroyer, which, up until that year had never been seriously considered in many districts, but which was fast gaining a foothold in the grain fields of the Dominion.

Owing to the extremely wet summer of 1915 the smut spores on the oats increased to an alarming extent, and many people believed that the smut was caused altogether by the wet weather. Thanks, however, to the Ontario Agricultural College, which has been experimenting with the smut spores for years, a treatment for the prevention of smut became known. Our District Representative believed that smut could be controlled, and it was through him that I was convinced that it was worth a trial. However, I decided that I would leave one width of the drill across the field. I am glad I didn't leave more than one. The results of the experiment were very gratifying to me.

I used the formalin treatment, which is a 40-per cent. solution of formaldehyde, and the method which I followed is known as immersion, or, in other words, the grain is put in a large sack and allowed to soak in a barrel of the solution for twenty minutes. It is then taken out and spread on the barn floor until the oats become dry enough to run through the drill. In dipping we used a rope and pulleys to raise and lower the sack out of the solution. This made it possible to handle two-and-a-half bushels in a sack at once. After taking the sack out it was set on a slanting trough and allowed to drain for twenty minutes before being emptied on the floor.

The seed which was untreated was sown on exactly the same kind of land along side of that which was treated. Out of three hundred heads on a square yard there were one hundred and thirty-five heads of smut, but in what was treated I am safe in saying there wasn't one-hundred-and-thirty-five heads in fourteen acres. By treating the seed I saved nearly one-half of my oat crop. The oats from treated seed turned out sixty bushels to the acre, and if they had not been treated they would only have turned out about 33 bushels per acre.

Formalin for treating seed to sow 21 acres cost 60 cents, and allowing \$3.00 for a man's time treating the seed would only bring the total cost to \$3.60. The increased yield, due to treating the seed, was 567 bushels on the 21 acres. Valuing the oats at 40 cents per bushel, which is not high considering we sold all our seed oats at 70 cents per bushel, we gained \$226.80. The total cost was \$3.60, which left a total profit of \$223.20, plus good clean straw for feed, a clean threshing, and a good demand for seed oats. Treating the seed for smut paid me well, and it would have paid any one else as well. A neighbor who bought seed oats from us that spring took two bushels of the treated seed which we had left over, and you could see from the road where the treated seed was sown. When such has proven to be the case with one farmer, would it not be the same with every farmer?

Middlesex Co.

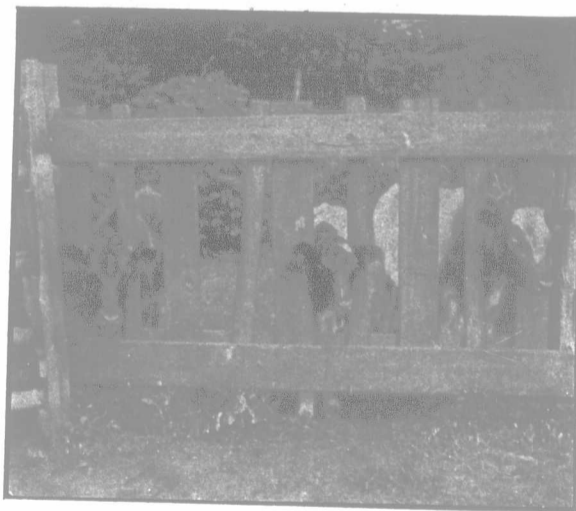
A. D. LIMON.

The man operating his farm on the mixed-farming basis always "hits it" with something. This season has amply demonstrated the truth of this statement.

A Stanchion for Feeding Calves.

EDITOR "THE FARMER'S ADVOCATE":

Some time ago Peter McArthur told us what a fine thing a wire fence was for feeding calves through, I took his advice and tried it, and it worked fine. The calves grew into big, lusty fellows, but they still persist in feeding through wire fences, much to the detriment of both the wire fence and the crop growing on the other side of it. So this spring I put into practice a modification of an idea I got when visiting the Guelph College farm. This stanchion is made of wood instead of steel and is home-made. A few hours' work with some inch lumber will soon set it up. The accompanying illustration will explain itself. The only alterations which might be an improvement would be to put the stanchions a little farther apart, for in the one illustrated the calves can suck one another's ears, but they can soon be taught not to do that, and it is only a minor consideration compared to feeding them any other way. I think great harm is done to heifer calves by having others suck their udders when fed loose, and also by beating them to keep them away while one calf is being fed.



The Calves in the Stanchions.

This stanchion can be made for any number of calves, and can be carried around by two men. It can be set up in any convenient fence corner, and can be used as a gate into the calf paddock, or as a partition in the stable. The calves are left in the stanchions for ten or fifteen minutes before being let loose, when all desire to suck has passed away. This method saves many an exasperating moment.

The stanchion is made of inch hemlock lumber. The horizontal boards are of double thickness, one on each side of the uprights. The stationary upright boards are six inches wide, and are nailed solid top and bottom. Then a four-inch space is left between that and the narrow board, which is two inches wide, and works on a single bolt or nail driven through the bottom, and when it is closed on the calf's neck is held in place at the top by a wire loop attached from the top of the stationary board next to it. There is a nail or bolt put through the double horizontal boards, four inches from the up-

rights, to keep the movable slat from closing too tightly on the calf's neck and to hold it firm when closed. On the front side the horizontal boards are left protruding six inches past those on the other side, to allow for fastening to a post at each end.

Muskoka District.

R. D. RILEY.

The Young Farmer's Duty.

EDITOR "THE FARMER'S ADVOCATE":

Agriculture is to-day the leading industry of our country. Upon it alone depends, almost entirely, Canada's future. When we think of this great war and what it is costing our country we feel that we as farmers should aim to increase production. Most of us know the financial situation of the Dominion and how badly production is needed. In 1915 it was greatly increased; this year our production must be maintained in order to meet the requirements, so we see the whole national situation depends upon the farmer's ability to produce.

But how can we produce more with so many leaving the farms? For many years farmers have been short handed, but since the war there is even a greater scarcity of farm help. Right here I think the Junior Farmers' Improvement Association is doing its share to keep young men on the farm. Only a short time ago there appeared a letter in one of our agricultural papers from a farmer whose son was going to leave the farm. Just at that time he was told that the Dept. of Agriculture was putting on a four weeks' short course in each county where there was a District Representative. The boy decided to take the course and since then has never felt like leaving the farm.

The experiments and competitions conducted by the Junior Farmer's Improvement Association give the boys an interest in the operations of the farm that they would not otherwise get. Let me give you a little of my own experience: A year ago last April I entered the Baby Beef Competition, I had two calves the same age; the one got ordinary care and feed while the one I fed for the competition got a little extra. At one year of age the difference in weight was 275 lbs. The one sold for \$8.25 per cwt., the other would easily have brought \$9.25. Hence we see that a little extra work pays in the end.

Following are the results of an experiment conducted with commercial fertilizer. The experiment was conducted on two 1/8-acre plots of roots. Previous to sowing both received the same amount of work with the exception that one plot was fertilized while the other received no fertilizer:

Yield of fertilized plot, 1/8 acre.....	8,460	lbs.
Yield per acre.....	1,128	bu.
Yield of unfertilized plot, 1/8 acre.....	6,592 1/2	lbs.
Yield per acre.....	879	bu.
Difference in yield 1,128-879=.....	249	bu.
Selling price: 249 bus. at 12c. per bu.....	\$29.88	
Fertilizer applied at the rate of 1/2 ton per acre costing \$30 per ton.....	15.00	
Profit.....	\$14.88	

The above shows what can be done if we only knew or if we were only willing to experiment. Through the Young Farmers' Improvement Association these things are encouraged and it seems to me it is a good way to get the young people interested in rural life. Too many farmers think of nothing but work, work, work; this is what makes farming tiresome. But we can make it pleasant if we want to, the opportunity is ours.

In cli the pro staples, better own P lands. C making it is ou on the make r deal in farmer corners Our me home. greatest itself to surround home t A ne The ge dividua whether he care beauty. to show lawn an beauty think m about o us more hope in together while. some tin emphasi people loyal to by keep dition, doing ou home.

Water

EDITOR

I hav ports in doubtfu if such and raisi of feedi I wou We v tered Yo litters, a of twelv to make the priv own, an from the profit I see what and also brood so against h As m large one to pay fo condition the hogs and to fi this broo against t etc., unt and that expense o Fortunat as I cons ing feed finely gro given car to feeding chop at mangels, days the 42 days w pigs were handful o 6 weeks w this time ration ea her next plus the s service fee litter. Th against th of feed sl would dri feed to ke the young out in the that was Now I pigs. Son to feed pi would con

In climate and soil Canada is admirably adapted to the production of superior qualities of the principal food staples, both animal and vegetable.

Canada is but a young country and is only in the making of history. Her records so far are good, and it is our duty to see that in our time no blots will appear on the pages.

A neatly kept place is commented on by each passerby. The general appearance of a house expresses the individuality of a man. From the outside one can judge whether the owner is neat, orderly or artistic.

CLAYTON D. MILLER.

Waterloo County.

Profit from a Brood Sow.

EDITOR "THE FARMER'S ADVOCATE":

I have very often read profitable hog feeding reports in "The Farmer's Advocate," yet I was always doubtful as to the figures given, and often wondered if such profits could possibly be obtained from feeding and raising hogs.

We were fortunate enough to have a large, registered Yorkshire sow that had previously raised two litters, and on Jan. 5, 1915, she farrowed a litter of twelve pigs, all healthy, and pigs that promised to make a splendid bunch for feeding.

As my bank account was not by any means a large one it was necessary for me to have a financier to pay for the feed.

One was easily obtained under conditions that I would pay back all debts after the hogs were marketed. To keep a proper account and to find out what profit could be obtained from this brood sow, I considered it necessary to charge against that sow her total expense by way of feed, etc., until another litter of pigs were born from her.

From this time on the sow's feed was reduced to a 5-cent ration each day. For the remaining 112 days, till her next farrowing time, her expense would be \$5.60, plus the \$2.94 for the first six weeks, and also \$1.00 service fee in February to insure her in pig for another litter.

Now I shall give my expense of feeding the young pigs. Some people are of the opinion it pays better to feed pigs along very cheaply and sparingly, but I would consider this practice poor economy, and find

that larger profits can be made from generous and careful feeding.

The first six weeks the young pigs were practically of no expense to feed. When they were weaned at six weeks old I then began caring for them the very best way I knew how.

I decided then that the hogs would be plenty heavy enough for marketing at the age of five and a half months, and commencing their last six weeks feeding I put in a fresh supply of chop. It was 50 per cent. oats, 25 per cent. wheat and 25 per cent. barley.

The hogs were marketed at five and a half months old, and averaged 215 lbs. They sold at \$10.50 per cwt., making a total selling price of \$270.90.

Following will be found an account in fuller detail of expenses and profits obtained:

Table with columns: Expenditures, Common Geese, Receipts. Rows include Dec. 1913, Dec.-Apr., Feb.-Apr., Dec., 1914, and Net gain or profit.

Pure-bred Toulouse Geese.

Table with columns: Expenditures, Receipts. Rows include Jan., 1915, Jan.-Apr., Dec., 1915, and Net gain or profit.

Table of costs: Cost of feeding sow to weaning period, feeding sow from weaning to farrowing, service fee in February, feeding hogs from six weeks of age to three months, feeding hogs fourth month, feeding hogs last six weeks.

Summary table: Total selling price, Total expenses, Clear profit.

If a brood sow will raise two such litters of pigs a year and show similar profits, then surely a hog-house and a few good brood sows would pay remarkable dividends on time and money spent.

Experience with Common and Pure-bred Geese.

EDITOR "THE FARMER'S ADVOCATE":

A flock of geese, I have found, is one of the most profitable sidelines for the farmer. Geese are able to protect themselves from most of the natural enemies of poultry, and if given the opportunity will find their own feed.

ing stock kept; that nondescript variety known as common geese being much in favor.

In December, 1913, I bought three geese and a gander of this sort, paying \$8.50 for them. From that time till April they were fed pulped apples and oats. The first egg was laid on March 15, and 40 eggs were laid in all.

After corresponding with several Ontario breeders, I ordered three pure-bred Toulouse geese and a gander. These cost \$12.60 landed here.

The following figures show the cost of each flock, with the returns:

From these figures we see that the profits from the two flocks were practically the same in proportion to the outlay. But in the first flock twenty-one geese were kept through the season, and in the second only ten.

When we consider that a small goose eats nearly as much as a large one, it is easy to see that the heavy geese pay better to raise, even if possibly they are not so prolific.

Another point in favor of the Toulouse geese is that they are much easier to keep confined, when necessary; also it is an advantage that they are more quiet in taking from the nests or handling in any way.

When plowing down manure for winter wheat do not bury it too deeply. It is well to remember that the tendency of manure is always downward.

A good breeding pure-bred female acquired by a boy or young man will make a foundation for a herd or flock which will stand him in good stead when he branches off in farming for himself.

Don't be discouraged by one failure. Overcome the next obstacle and you will be stronger for having encountered difficulties.

Automobiles, Farm Machinery and Farm Motors.

Keep Down the Gas Bill.

If you have ever had any experience in city life in what might be called the earlier days, you will well remember the care exercised by every thrifty housewife in the lighting and turning out of gas lamps in the home. Guests were frequently courteously advised in a delicate, indirect way, that gas cost money and that the end of the month never failed to come with its bill from the company; and so in a word, the most rigid economy, with a good deal of solid comfort, was always exercised in the burning of the illuminating power. You must use the same rule in the consumption of gas for your motor car. It is the trifles that make perfection, although someone has said that perfection is no trifle. If you wish to keep your gas bill down to a reasonable minimum, an exact system must be instituted. There are one hundred different ways in which fuel can be wasted. The average farmer finds it necessary to store a certain amount of the liquid, and when installing his tank system, he should constantly bear in mind that gas is used for the operation of internal combustion engines because it is volatile and evaporates very easily. If it were not a quick, active fluid, the burning of it would not give the extreme power desired. With these thoughts in mind, you will now agree that it is well to store gas underground. The additional cost will be well repaid by subsequent savings. If the fuel is placed above ground, great difficulty will be experienced in keeping it from mixing in the surrounding air, evaporation is bound to take place, and the strength of the gas is considerably reduced. A leaky faucet will cause a decrease in volume and gravity, and slopping over can have but one effect. Your best arrangement will be a small tank securely sealed and properly placed underground.

If you wish to get a high mileage on the gallon from your engine, do a little experimenting at the start, in order that you may exactly determine the grade of gas best suited to your motor. Your car-

buretor is always adjusted for a certain test of fuel, and the sooner you find out the brand that is best suited to your burning, the lower your account will be at the end of each month. It is a bad policy to be changing gas and adjusting the carburetor. It is also foolish to think that all manufacturers turn out a fuel of the same standard. In a previous article we suggested that your engine could be cleaned very readily and easily by the use of gas blown from a power spray, but do not think it necessary in this operation to use a large quantity of fluid, for sooner or later the habit will become an extremely costly one.

Your aim and ambition should be to impose as little work as possible upon the gas, which as everyone knows, serves the one purpose of turning the crank shaft, and through the transmission forces the rear wheels upon their way. Never run your engine with valves that have too much side motion, and never allow the cylinders to become highly carbonized. The small item of expense in the adjustment of the valves and in the burning out of the cylinders, will be well repaid by the money saved for fuel. Ease of operation means a well-oiled mechanism. Do not save a few cents on lubrication, but rather make it your purpose to buy the best of oil in order that the gas, in turning the engine, will not require to exert an atom of useless energy. Nearly all cars nowadays are equipped with a strainer or drip. This should be cleaned at regular intervals in order that there may never be the slightest suspicion of trouble. No matter how much pains the manufacturer may have taken, you will find that all gas holds a certain amount of foreign matter. This is removed by the strainer, which in turn should be constantly kept in order by the owner or driver.

Those who have saved a large amount of money this year on their gas bills are the persons who brought into the running of their car the same principles employed in the maintenance of the home. They looked ahead and watched the market. Seeing that

an advance must take place they anticipated the increase, and were able to run until the present time at a lower rate per mile than their neighbors who viewed the situation in a haphazard fashion and paid whatever price for gas a garage asked of them. It would be folly, at the present instant of writing, to make a prediction regarding future prices for fuel, although some of the best auto owners seem to think that it must go down in the not very distant future. Last spring, however, anyone who was at all attentive to the newspapers or to the trend of public or private opinion, could see that gas was going to advance. We know of one farmer who put in a supply of five barrels, securing the product for a price that could not be duplicated to-day at any production centre. When you are reading the prices of farm products and studying the conditions that affect them, cast an eye once or twice upon the gas situation, and if indications point to an advance do not hesitate to invest some money and so guarantee yourself against the future. AUTO.

How to Adjust Valve Rods.

Push rods on an auto engine, after long use, become worn and get noisy.

To adjust them, you will generally find two nuts, or a screw and a lock nut which you can adjust by loosening the lock nut, and screw the pin out until you have about the thickness of an ordinary business card between the two, being certain that the push rod is in its lowest position.

If no such adjustments are provided, you will either have to draw out the valve stem or take a rod about one-eighth of an inch larger than the stem, drill a hole in the end of the stem to a depth of one-eighth of an inch, then cut off long enough to leave a small cup with the bottom in, then dress with a file until you get the proper clearance.—R. A. Bradley, Colorado Agricultural College, Fort Collins, Colo.

THE DAIRY.

Pepsin is Proving Satisfactory.

EDITOR "THE FARMER'S ADVOCATE":

It appears that certain persons, for reasons best known to themselves, are circulating reports to the effect that cheese made with pepsin "does not keep," etc. In view of the quantity of pepsin now being used it might be injurious to the good name of Canadian cheese if such assertions were allowed to go uncontradicted.

During the week ending May 27 several lots of

experimental cheese were made at the Finch Dairy Station from mixed milk divided into two vats, one of which was "set" with pepsin, and the other with rennet extract. These cheese are still on hand in the curing room, and no difference can be found in the flavor of the two cheese in any of the tests. Any statements to the effect that cheese made with pepsin are inferior to cheese made with rennet extract are absolutely unfounded, providing, of course, that the pepsin is of good quality and is properly used.

There are different forms and strengths of pepsin being offered at the present time, and cheesemakers should be careful not to use anything which has not been carefully tested and proved to be suitable for the purpose by some disinterested and competent person.

Pepsin is now being used at the Finch Dairy Station, and its use there will be continued until we can purchase rennet extract at no more than \$5.00 per gallon. J. A. RUDDICK, Dairy Commissioner.

Factorymen in some Western Ontario dairy sections report the supplies of milk, under the stress of a few weeks' dry weather, fallen off from one-half to two-thirds, but the price of butter had not been going up as rapidly as the output had gone down. The value of extra supplies of feed and ample water for such times as portions of the country have been experiencing, are being more keenly appreciated than they were a month or so ago.

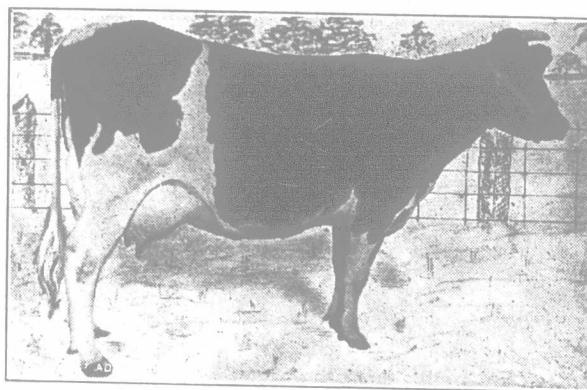
How the Test Has Proved the Value of Holsteins.

There are a number of distinct breeds of cattle, each breed varying from the other in type, size, conformation and in ability to produce milk and butter-fat or to furnish a choice beef carcass. While they all belong to the bovine family there is a vast difference in the appearance of the different breeds as well as in their value for definite purposes. Even individuals of each breed differ considerably in regard to the points mentioned, and it is this variation that makes improvement possible. Mating two choice individuals tends to intensify the good qualities of both in the offspring, consequently care should be exercised in selecting the animals to breed from in order to have the herd improve rather than retrogress.

Breeding along definite lines for a number of years has brought each distinct breed to the present high degree of perfection. Pioneer breeders had the difficult task of fixing the type and conformation of each breed so as to standardize it. The extent of the work depended to a large degree on the blood used in building up the breed. The longer the breed has been kept pure the less danger there is of reversion or of early defects in the breed cropping out in the offspring. It takes years of careful breeding with a definite aim to definitely fix the desired qualities, and even then care must be taken to continue selecting the best females and breed them to bulls that are choice individuals of the breed backed by a line of ancestors that have proven worthy of the breed they represent.

If a herd is not showing improvement year after year it must be losing some of its desirable qualities. There is no standing still. The aggressive breeder with good judgment will continue improving his herd. Although some of the records attained by certain individual cows are about as high as can be expected, the producing qualities of the vast majority of cows can and should be materially increased.

It is claimed that Holsteins are the lineal descendants of cattle bred two thousand years ago. From the earliest account of dairy husbandry on record these cattle have been used and developed for dairy purposes. The long line of breeding without the introduction of blood of other breeds makes Holsteins particularly prepotent. When crossed with any other breed the offspring shows, to a large degree, the characteristic



Baroness Madoline.

Canadian champion of the four-year-old class in R. O. P. test up to May 1, 1916. Owned by Wm. Stock, Tavistock, Ont.

markings, type and conformation of the black-and-white breed.

For centuries the production of milk was the main object, and breeders have succeeded in building up a breed unequalled for milk production. Of recent years an endeavor has been made to improve the quality of the milk. A good deal of success has attended these efforts. While some herds and some strains of Holsteins give milk of inferior quality, there are other strains in which the average test is high. The breed as a whole is generally credited with producing rather blue milk, but, when the extra quantity is considered the average butter-fat yield per cow exceeds that of other breeds. Holsteins have their faults, some of which are being overcome, but there are some breeders who do not pay sufficient attention to the selection of their females or the kind of sire to head the herd. Not only does the individual breeder suffer by this neglect, but the result frequently reflects discredit on the breed as a whole.

Holstein Characteristics.

The dyked land of Holland claims to be the native home of the black and white breed. This country

consists of land reclaimed from the sea and is naturally very fertile. Much of the land is in meadows which yield luxuriant crops. This fact alone has doubtless had much to do in producing such large-framed animals. A good deal depends on environment and generation after generation of the one breed pasturing on land that never fails to supply an abundance of feed would naturally produce animals of large scale. The climate is rather cold at times, but, considering the temperature the year round conditions are very satisfactory for stock raising. The breed is widely distributed over the world although possibly not to the same extent as other breeds. Although not well suited to a hot, dry climate or poor lands the breed thrives over a wide range of country and readily adapts itself to varying climatic conditions. It appears to do as well on Canadian fodder under the Canadian system of feeding and stabling as it does in its native land. To whatever country Holsteins have been taken they have maintained their record as milk producers.

The characteristics of Holstein-Friesians are distinct and peculiar to the breed. The usual color is black and white although there are pure-bred animals that are red and white. Considered as a breed they are large-framed animals showing great capacity. The body is long and deep, thus giving plenty of room for consuming large quantities of roughage grown on the farms, and transforming it into valuable products. As a breed Holstein cattle are not "picky" about their feed.

The udder is large and usually fairly well developed. It is attached high behind and extends well forward, although there may be more of a tendency toward a pendant form as the cow reaches maturity, than with other breeds. However, breeders of the black-and-whites are working hard to overcome any deficiency noticed in their chosen breed. They select and breed to produce a large-framed animal, of recognized dairy type and conformation, which possesses the machinery to manufacture the products of the fields into milk and butter-fat. It is true that the large cow will consume more feed than one of less scale, but if she is bred right she should produce accordingly. Holsteins are among the largest breeds of cattle. It is not unusual to see

matu
cows
indivi
weigh
scale
From
great
breed
again
of co
gains
that
waste
the b
impos
type

Canad

It can
not be
other
and ea
made t
animal
has a
to inte
breeder
rather
whatev
she has
into he
organiz
advant
product

Alth
known,
Accordi
Holstei
of 1882
and, it
small lo
to Can
dairy c
and-wh
with de
finally
produce
Canadian
met an
Holstei
member
experie
breeder
their ca
Canadian
tween 4
such ra
that now
which gi
gained in
Up t
recorded
Holstei
and the
remarka
ter-fat.
before th
duction
be true,
constit
animals
its high
Holstei
percenta
the disti
the head
for milk
not the
butter-fat

Offici
been fact
of the pu
1901 the
in which
amount
of officers

mature bulls weighing well over the ton, and mature cows average from 1,250 lbs. to 1,300 lbs. with many individuals tipping the scales considerably over this weight. With both males and females of such great scale it is only natural to expect the calves to be large. From the first they do well if properly fed, and are in great demand for vealing. As beef producers the breed does not rank very high. Stockmen discriminate against steers for feeding purposes showing any indication of containing Holstein blood. Although fairly good gains in weight are made the meat is not of the quality that suits the buyers. There is claimed to be a waste in killing and too much intestinal fat. However, the breed is selected for dairy purposes, and it is almost impossible to combine heavy milk production with the type and conformation desired in the beef breeds.



Duchess Wayne Calamity 2nd.

Canadian champion of the two-year-old class in R. O. P. test. Owned by Walburn Rivers, Ingersoll, Ont.

It can be done to a certain degree, but one quality cannot be intensified without detracting more or less from other qualities. There are breeds for special purposes and each has its place to fill. When an endeavor is made to combine the qualities of two distinct types of animals in one, the breeder begins to realize that he has a stupendous task on his hands. After breeding to intensify dairy qualities for centuries the Holstein breeder's forte is in continuing to perfect these qualities rather than introducing animals of a beefy type. To whatever country the Holstein cow has been taken she has retained the vigor and vitality that were bred into her in her native land, together with a physical organization and digestive capacity to convert to good advantage the roughage of the farm into a marketable product.

Holsteins in Canada.

Although this breed is said to be the oldest one known, it is a comparatively new breed in Canada. According to the most accurate information available, Holsteins were first brought to Canada during the winter of 1882-3. Several farmers at widely separated points and, it is believed, unknown to each other selected small lots from United States' herds and brought them to Canada for trial. The other leading breeds of dairy cattle were firmly established before the black-and-whites were introduced and the new-comers met with determined opposition for a time, but the breed finally gained a foothold and on its merits as a milk producer soon occupied a prominent place among Canadian dairy herds. In the fall of 1883 breeders met and formed the organization now known as the Holstein-Friesian Association of Canada. From a membership of probably a dozen the association has experienced rapid growth and now includes over 2,200 breeders. Until 1891 Canadian breeders registered their cattle in the United States, but in that year the Canadian Herd Book was established. At first, between 400 and 500 cattle were recorded annually, but such rapid strides have been made in recent years that now there are about 10,000 registrations per year, which gives some idea of the firm footing the breed has gained in its new home.

Up to May of the present year there have been recorded in Canada 27,222 bulls and 42,108 cows. Holstein breeders have laid great stress on production and the testing work has revealed a large number of remarkably high records not only in milk, but also in butter-fat. This has done a good deal to bring the breed before the public. It is generally believed that heavy production drains the vitality of the animal. This may be true, but the majority of the breeders do not sacrifice constitution to production. Strong, healthy, vigorous animals must be maintained if production is to reach its highest point. True, there are poor animals among Holsteins as among all breeds, but it is doubtful if the percentage is above the average. The breed claims the distinction of having its representatives stand at the head of all breeds in both long and short tests for milk production, and while the percentage fat is not the highest, the extra quantity of milk makes the butter-fat per cow exceptionally high.

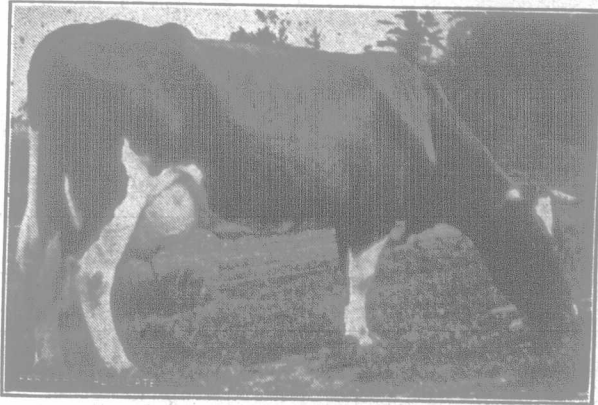
Holsteins Under Test.

Official testing and holding dairy tests at fairs have been factors in popularizing the breed, as the majority of the public tests in Canada Holsteins have won. In 1901 the Association established a Record of Merit in which cows qualify only after producing a certain amount of butter-fat under the strictest supervision of officers of agricultural colleges and experiment stations.

Under this system of testing 3,313 cows had qualified up to May 1. The number is gradually increasing as the test is popular with the breeders. May Echo Sylvia, a Canadian representative of the breed, is worthy of mention as she holds a world's record for one day's milking. Her record for one day is 152.1 lbs. milk, for seven days 1,005.8 lbs., making 41 lbs. butter; thirty days 4,196.9 lbs. and 12,889.8 lbs. milk for 100 days. This gives an idea of the possibilities of a cow bred right and kept under ideal conditions.

It is the long or Record of Performance test that shows what a cow is doing under normal conditions. This test is semi-official and is conducted for all the breeds by the Dominion Live Stock Branch in co-operation with the Associations. The only expense to the breeder consists in boarding the official tester for two days, possibly seven or eight times a year. In order to qualify, a cow must reach a certain standard of production. Since the commencement of this test 952 cows and a number of bulls have qualified.

No animal can enter in the test unless registered in the Canadian Holstein Herd Book. The test is for a full lactation period, but must not exceed 365 consecutive days. The cow under test must drop a calf within 15 months after the beginning of the test. The owner of the cow looks after the weighing and recording of each milking and his figures are checked up several times a year by an official inspector who stays at the farm for a period of two days every 6 or 8 weeks and weighs all the milk and takes samples for testing. If there is a variation in the weights between what the inspector gets and what is recorded previous to his visit an investigation is conducted. As the inspector comes unheralded at irregular intervals no breeder would risk his reputation by tampering with the milk records. That the test is only semi-official prejudices some breeders against it and they prefer the short, strictly official test. True, the value of the Holstein has been greatly boosted by the records made in tests of short duration, but there is also room for discrepancies to creep in and while a cow may do remarkably well for 7 or 30 days it is little indication of what she is capable of producing in a whole lactation period. The short tests are made when the cow is in the pink of condition, and as a rule she is especially fed to stimulate production and is milked three times or more each day.



Plus Pontiac Artis.

Canadian champion of the three-year-old class in R. O. P. test. Owned by S. Lemon, Lynden, Ont.

The Record of Performance test shows what a cow is capable of producing under average conditions. To know that a cow has produced so many pounds of milk equalling so many pounds of fat in one lactation period, conveys a fairly accurate idea of what the animal is worth. As like tends to produce like, purchasers want to know the yearly records of the stock they are buying. A cow that gives an average flow of good quality milk throughout the lactation



Hill-Crest Pontiac Vale.

Canadian champion of the four-year-old class in R. O. P. test. Owned by G. A. Brethen, Norwood, Ont.

period is a more valuable animal than one that milks well for a month or two and then drops off considerably. The day is past when animals of either sex of the dairy breeds are bought by appearance alone. Along with type and conformation must go the ability to produce milk and fat. The breeder who keeps an accurate record of the milk and fat yields of each cow in his herd, and selects and breeds to improve both the quality and quantity of milk will never regret the day he commenced studying his herd by use of scales and tester.

True, weighing the milk at each milking takes a little time, but the knowledge accruing from it greatly over-balances any trouble involved. No breeder of pure-bred cattle can afford to neglect keeping records. If a cow makes a good yearly record it will materially aid in selling her offspring. If the year's production is low it is well to know it. Bulls from low-producing, low-testing cows are seldom of much value in improving the herd. Not only are they detrimental to their owner, but they injure the reputation of the breed as a whole. Breeders of the black-and-whites have made a name for their breed through the short test and are destined to make a greater name through the semi-official yearly test. The record an animal must make in order to qualify is not excessive, but every animal qualifying is paying its way and leaves a good profit besides. If



Toitilla of Riverside.

Canadian champion of mature class in R. O. P. test. Owned by Jos. O'Reilly, Ennismore, Ont.

proper selection of breeding stock were made and only sires from high producing stock used it would only be a matter of a few years when every pure-bred animal would qualify for registration in the R. O. P. test. The coming of this day will be hastened by every breeder keeping records, and then breeding according to information conveyed by the records.

The females are divided into four classes so that heifers will not compete against mature cows in the test. Bulls are admitted for registration after having four daughters qualify in the Record of Performance test, each from a different dam. Cows admitted must equal or exceed both the records specified below and fulfil the requirements of breeding as supervised by the Live Stock Branch.

	Lbs. Milk	Lbs. Butter-Fat
Two-year-old class.....	7,500	255
Three-year-old class.....	8,500	289
Four-year-old class.....	9,500	323
Mature class.....	10,500	357

Some cows entered, more than doubled the required number of pounds of milk and butter-fat. An idea of the producing power of individuals of the Holstein breed is conveyed in the yearly records of the champions of the different classes. These records may be broken at almost any time. The test is gradually revealing many exceptionally valuable cows from a production standpoint at any rate, and breeders are standing in their own light by not entering their cows in the test.

The champion of the mature class is Toitilla of Riverside, with a milk record of 24,090 lbs. of milk and 845.6 lbs. butter-fat. Baroness Madoline held the championship in the four-year-old class until recently when her record was exceeded by Hill-Crest Pontiac Vale whose record is 22,789 lbs. milk and 789 lbs. of butter-fat in the year. The former cow's record is 21,149 lbs. milk and 773 lbs. butter-fat. Plus Pontiac Artis holds the championship in the three-year-old class with 21,018 lbs. milk and 792 lbs. butter-fat to her credit. In the two-year-old class Duchess Wayne Calamity 2nd has the highest record which is 16,714 lbs. milk and 673.8 lbs. fat. There are cows that are close seconds in each of these classes and probably there are some that have never been officially tested that would exceed the present high records.

There are certain strains or families in every breed that are noted for certain qualities. In the Holstein breed are several families that have a long line of descendants doing credit in the way of production, to their breed. It is only by test that the prepotency of these families can be followed.

Although the Holstein cow is a heavy feeder she has proven by test that good use is made of the feed consumed. Individuals of the breed excel all contestants of other breeds under test for milk production. On the average, Holstein milk does not test particularly high in butter-fat, but the milk is of fair quality. In breeding and selection possibly more stress has been laid on quantity than on quality. Some cows give milk testing four per cent. and over. With these as foundation stock it is possible to raise the quality standard for the whole breed. All breeds must win on their merits and the Record of Performance test is revealing the possibilities of the popular black and white dairy breed.

HORTICULTURE.

Canada's Crop of Fruit.

The Fruit Commissioner's third report re the fruit crop for the season shows the outcome to be altogether different from what was expected earlier in the season. There is no doubt, says the report, that the production in Eastern Canada will be small and so far as Ontario and Quebec are concerned the quality of the fruit will be very poor. The continued development of apple scab has caused heavy dropping of fruit, and apples remaining on the trees are badly marked with fungus. Poorly sprayed orchards are almost worthless, and even in orchards that have been well sprayed a large proportion of the crop will be of low grade. Taking the Province of Ontario as a whole the total crop will not exceed that of 1915, which was a year of low production, and the quality of the fruit will be poorer. The only section of the province where conditions are more favorable than last year is in the Georgian Bay district where a slight increase is expected. In Nova Scotia the "drop" was much prolonged, but fortunately the development of scab has only been general on poorly sprayed orchards and the bulk of the crop marketed, coming from well-cared-for orchards, should be of good quality. The total crop is now estimated at about 600,000 barrels, or equal to 1915. The British Columbia crop should exceed that of last year.

The crop in the North-western States, on the whole, is expected to be from 25 to 30 per cent in excess of last year. New York State will likely produce a crop about 40 per cent larger than in 1915, but on account of the development of fungus the quality will be below normal.

The Niagara peach crop will be between 60 and 75 per cent of a standard crop. Varieties of the Crawford type are light, Elbertas, about medium; other varieties, such as Longhurst, Lemon Free, and Smock are a full crop.

There is about half a crop of plums in Niagara. There is a light crop in Lambton County and a very light crop in the Burlington district. Middlesex County reports half a crop. East of Toronto and in the Georgian Bay District the crop is practically a failure. Taking the Province of British Columbia as a whole there will not be more than a medium crop of plums and prunes. The crop is light in New Brunswick and almost a failure in Nova Scotia.

Bartlett pears are a better crop than other varieties in Niagara. There will be a total crop of about 50 per cent of normal. There is a light crop in Lambton and a fair crop in Middlesex. Near Burlington, Bartletts give fair promise with Keiffers medium, and other varieties light. East of Toronto in Ontario there is less than half a crop and much of the fruit is scabby.

There is a promise of a full crop of grapes in Niagara. Some reports show the presence of mildew on the Rogers varieties.

The Commissioner writes thus regarding prices and transportation "The crop is not expected to be as large as last year and the quality on the whole is no better. It is then safe to assume that in view of the limited quantities the price for first quality fruit should be such as to counterbalance the high transportation rates.

F. M. Clement Resigns

F. M. Clement, B.S.A., has resigned the directorship of the Ontario Horticultural Experiment Station at Vineland to accept the position of Professor of Horticulture at the University of British Columbia. Mr. Clement will leave for the West early in September.

FARM BULLETIN.

Strong Exhibition at Regina.

The Regina Exhibition of 1916 is now a thing of the past and those having any connection with the management of the event have reason to feel proud of the success attained. The weather man did his part fairly well. Good crowds, both urban and rural, attended the exhibition. The horse classes were well filled and the quality was well up to the standard of former years. As usual the Clydesdales made by far the most spectacular showing. Belgians were also strong both in number and quality. Both in beef and dairy breeds there was considerable competition, there being a nice uniformity of quality through all the classes. Sheep and swine were fully up to the standard of former years, both numerically and as regards quality.

The following judges acted—Clydesdales, John Gardhouse, Weston; Percherons, Belgians and Light Horses, Alex. Galbraith, Edmonton; Shorthorn cattle and sheep, Capt. T. Robson, London, Ont.; Herefords and Aberdeen-Angus, Col. Robt. McEwen, Byron, Ont.; Dairy cattle, Prof. Shaw, Saskatoon; Swine, Wm. Jones, Mt. Elgin, Ont.

Horses.

In keeping with the reputation of former years, Clydesdales made an excellent showing which attracted much favorable comment. In the aged stallion class, Nether Baron, brought out in excellent bloom, was placed first in a fairly strong line with the Brandon winner, Belle Isle, standing second. The three-year-old class was particularly strong with Golden Youth, a big up-standing son of Fyvie Baron heading the class. The stallion championship was awarded to Thos. Heggie, Condie, Sask., on Golden Youth. Baron Wallace of Hillcrest shown by T. Wallace, Tregarva, Sask. and

winning in the two-year-old class was awarded the Canadian-bred championship. Almost all of the female classes were keenly contested. The champion came from the yeld mare class where O. J. White's Valdorah repeated her Brandon success and won her way to the top.

While the Percheron classes were light numerically a number of really good individuals were present. Kolombin again took premier honors in the aged stallion class and was awarded the championship for C. D. Roberts and Sons, Winnipeg. The same exhibitor's two mares, Russellette and Ella were again first and second in the brood mare class, but Esther, a nicely topped filly was awarded the red ribbon in the two-year-old class and was later given the championship. This filly was shown by R. G. Williams, Estlin, Sask.

The small coterie of Belgian breeders in Saskatchewan are worthy of commendation for the showing made by this breed.

Caesar de Naz, shown in much better bloom than last spring, was awarded the stallion championship. This horse comes from the stable of Geo. Rupp, Lampman, Sask. It was in the female classes, however, that the controversy was keenest and the quality of the individuals most outstanding. The brood mare class particularly was a strong one and from it was chosen J. E. Price's Duchess, for first place and championship.

Cattle.

Shorthorns again made an excellent showing and the placings generally were the same as at Brandon. Burnbrae Sultan again won the aged bull class and championship, but Capt. Robson reversed the Brandon decision placing Opportunity in second place with Fairview again third. In the aged cow class Silver Queen again moved up to the head of the line with Emma of Oak Bluff, Fairview Baroness Queen and Lady of the Valley 7th next in order. Countess 16th again took the red ribbon in the two-year-old class and later the senior and open championship.

Herefords were not quite so strong numerically as at Brandon, but they provided keen controversy in most of the classes. L. O. Clifford's good bull, Lord Fairfax, again carried off the senior and open championship, while J. I. Moffat's junior yearling bull, Moffat, won the junior honors. Miss Armour Fairfax and Belle Fairfax from the Clifford herd won the senior and junior female championships respectively.

The herds of J. D. McGregor, Brandon, Man. and Jas. Bowman, Guelph, Ont. carried off practically all the Aberdeen-Angus awards. Black Abbott Prince remained unbeaten in the aged class. Key of Heather 2nd took the senior and open female championship, while Bowman's Elm Park Pride 15th was awarded the junior honors.

The Holstein classes were the same as at Brandon and the competition was between the same two exhibitors. Only two herds represented the Ayrshire breed, those of Roland Ness, and F. H. O. Harrison.

Sheep and Swine.

Swine hardly made as good a showing as at Brandon the previous week, but in some classes, particularly with the Berks, there was keen competition. The sheep pens were fairly well filled this year and the standard was up to the average of former exhibitions. In several breeds competition was very keen. Among the exhibitors from Ontario were P. Arkell & Sons, Teeswater, Jas. Bowman, Guelph, S. Dolson & Sons, Norval, A. McEwen, Brantford.

Champions at Regina.

Clydesdales—Golden Youth, Thomas Heggie; Valdorah, O. J. White.

Percherons—Kolombin, C. D. Roberts; Esther, R. G. Williams.

Belgians—Caesar De Naz, Geo. Rupp; Duchesse, J. E. Price.

Holsteins—Korndyke Posch Pontiac, T. Laycock; Molly of Bayham Mercedes 2nd, T. Laycock.

Ayrshires—Morton Mains Planet, Rowland Ness; Lessnessock Pansy 2nd., Rowland Ness.

Shorthorns—Burnbrae Sultan, A. & G. Auld; Countess, 16th A. & G. Auld.

Herefords—Lord Fairfax, L. O. Clifford; Miss Armour Fairfax, L. O. Clifford.

Aberdeen-Angus—Edward 3rd of Glencarnock, J. D. McGregor; Key of Heather 2nd, J. D. McGregor.

My Friends, the Trees.

BY PETER MCARTHUR.

Near the house there is a sturdy oak tree that I always think of as one of the oldest of my friends. I grew up with it. Of course, that is not exactly true, for I stopped growing many years ago while it kept on growing, and it may keep on growing for centuries to come. But when I was a growing boy it was just the right kind of a tree for me to chum with. It was not too big to climb, and yet it was big enough to take me on its back and carry me into all the dreamlands of childhood. Among its whispering branches I found lands as wonderful as Jack climbed to on his beanstalk. And it had a stout right arm that was strong enough to hold up a swing on which I swung and dreamed for more hours than the teachers of to-day would consider right. When it whispered to me I whispered to it, and told it more secrets than I have ever told anyone in the world. It became a part of my life, and no matter how far I wandered in later years my thoughts would always return to the tree in times of sickness and trouble. I always felt that I would be well and happy again if I could only get back to the tree and throw myself at full length on the grass that it shaded and listen

to its never-ending gossip with the breezes that are forever visiting it. At last I came back from the outer world and made my home beside the tree. During my absence it had pushed up higher and had spread its branches wider, but it was still the same companionable tree. The grass still made a carpet over its roots, inviting me to sprawl at full length and renew our voiceless communion. While I was away I may have learned some things, but the tree had been in harmony with the universe from the moment it began to emerge from the acorn, and knew all that I so sorely needed to learn.

* * * * *

Although the oak is my particular friend among the trees on the farm, there are others with which I can claim at least an acquaintanceship. There is a maple at the edge of the wood-lot that always makes me feel uncomfortable, because I have a feeling that it has a joke on me. It stands on what would be called rising ground—which means an elevation that does not deserve to be called a hill—and while lying on the grass in its shade I can see over several farms to the south and east. It used to be a favorite of my boyhood, and once I composed a poem while lying in its shade. If you bear in mind the fact that I was seventeen years of age at the time you will understand why the tree has a joke on me. Here is the only stanza I can remember of the little poem I composed to express the "unmannerly sadness" of youth.

It long has been my cherished hope
Upon my dying day
To lie down on some sunny slope
And dream my life away.

At that age I could not have cherished the hope so very long, and the old tree must have chuckled to its last twig at my absurdity. Anyway, I never see the tree without recalling that wretched stanza, and I immediately hurry away to some other part of the woods.

* * * * *

But there is one tree on the place with which I can never establish a feeling of intimacy. It is the one remaining specimen of the original forest—a giant maple over three feet in diameter, whose spreading top rises far above the other trees in the wood-lot. Even though it stands beside the public road, it seems to retain some touch of the shyness of the wilderness, and does not invite the fellowship of man. Its first branches are so high in the air that it has never been profaned by the most venturesome climbers, and its great roots start out from the trunk in a way that seem to thrust back all attempts at familiarity. The second growth maples by which it is surrounded appear to be domesticated by comparison with this wildling, and when they are tapped at sugar-making time they yield sap as lavishly as a dairy cow gives milk. But the giant gives grudgingly, as if it resented the wound it had received. Its companionship seem to be with the wildest winds and storms, that alone have the power to rouse its huge branches to motion.

* * * * *

I sometimes wonder that I should be fond of trees, for when I was a boy trees were regarded almost as enemies. The land had to be cleared of them before crops could be sown, and they multiplied the labor of the pioneers. I learned to swing an axe by cutting down saplings, and ran "amuck" among them just as my elders did among the larger trees. In those far days trees were things to be destroyed, and no one thought of sparing them. But when I came back to the farm and found that the noble forest had dwindled to a small wood-lot that had no young trees in it—because the cattle had nibbled down all seedlings for many years—I was seized by a rage for planting. Finding that the government was willing to supply seedlings to anyone who would plant them out, I immediately began the work of reforestation and planted thousands so that when the present trees mature and are cut out there will be others to take their place. These little trees are now thriving lustily, but they seem to regard me with an air of aloofness, and I feel when among them as if they were looking at me furtively and trying to decide whether I am to be trusted. Perhaps there is still a tradition in the wood-lot of the havoc I wrought in my youth with just such tender saplings as these.

* * * * *

Yesterday while I was sitting at some distance from the home oak, admiring the curved spread of its branches, a bare-foot boy came out of the house. Without seeing me he walked straight to the tree and then looked up at its inviting branches. After a while he got a piece of a rail and placed it against the trunk. Then with clutching fingers and spreading toes he worked his way up to the lowest branch. Through the higher branches he clambered as if going up a ladder, and finally when he found one to his liking he bestrode it, with his back to the trunk, and looked away to the south. For a long time, with childish gravity, he gave himself up to the "long, long thoughts" of a boy. At last his eyes began to rove around and presently they rested on me, where I was watching him. He laughed in a shame-faced way as if he had been surprised in doing something that he would have kept secret, but I laughed back joyously and we understood. I am glad that there is another of my name who will love the old oak and the other trees and to whom they will perhaps give their friendship even more fully than they have given it to me.

Re
Stoc
Aug
2,372
sheep
fifteen
Lamb
Hogs
twent
The
the C
past

Cars.
Cattle
Calve
Hogs.
Sheep
Horse
The
the t
week

Cars.
Cattle
Hogs.
Sheep
Calves
Horses
The
at the
show
1,337
hogs,
Last

from
has b
lower
weeks
on the
and w
was p
for ch
cattle,
Mill

to fit
better
of the
calves
were l
previo
strong
them,
fat la
were

Toront
lots so
Stock
remem
this n
offere
weeks
month

Choi
good,
heifers,
to \$7
commo
\$6.75
medium
\$5.25 t
Bulls,
to \$7;
\$5 to
best, \$
Stocke
Veal c
lb.; co
per lb
Sheep
11c. to
10 1/2c.

7 1/2c. t
4c. to
fed and
off car

Whea
outside
\$1.07;
\$1.04;
accordi
wheat,
Manito
No. 1 n
\$1.39 1/2
Oats,
to 49c.
Manito
C. W.,
No. 1 f
Rye-
97c.
Buck

Toronto, Montreal, Buffalo, and Other Leading Markets.

Toronto.

Receipts of live stock at the Union Stock Yards, West Toronto, on Monday, Aug. 7, numbered 167 cars, comprising 2,372 cattle, 323 calves, 546 hogs, 1,075 sheep, and 1,036 horses. Cows, ten to fifteen cents lower; all other cattle steady. Lambs, ten to eleven cents. Sheep, steady. Hogs firm, at prices quoted; packers say twenty-five cents less.

The total receipts of live stock at the City and Union Stock Yards for the past week were as follows:

	City	Union	Total
Cars.....	45	405	450
Cattle.....	414	3,269	3,683
Calves.....	68	643	711
Hogs.....	300	9,311	9,611
Sheep.....	1,067	2,880	3,947
Horses.....	168	1,528	1,696

The total receipts of live stock at the two markets for the corresponding week of 1915 were:

	City	Union	Total
Cars.....	18	439	457
Cattle.....	99	4,086	4,185
Hogs.....	395	5,206	5,601
Sheep.....	876	2,853	3,729
Calves.....	58	486	544
Horses.....	—	3,033	3,033

The combined receipts of live stock at the two markets for the past week show a decrease of 7 cars, 502 cattle, 1,337 horses, and an increase of 4,010 hogs, 218 sheep, 167 calves.

Last week was not very satisfactory from any standpoint. Hot weather has brought the price of cattle much lower than they were two or three weeks ago. The great bulk of cattle on the market were of inferior quality, and were not worth a cent more than was paid. There was a good demand for choice, light, well-finished butcher cattle, but very few were offered.

Milkers and springers were steady to firm. Stockers and feeders of the better class were steady, but too many of the poorer kind were marketed. Veal calves were steady to strong. Lambs were lower by a good margin over the previous week. Light, handy sheep were strong and there was a good demand for them, but heavy, fat sheep and heavy fat lambs were not wanted. Hogs were the highest ever known on the Toronto market; some extra choice lots sold as high as \$12.75 on Thursday. Stockmen and farmers must, however, remember that the kind that brought this money were the very best ever offered. Judging by the last two or three weeks hogs will remain high for another month to come.

Choice heavy steers, \$8 to \$8.25; good, \$7.75 to \$8. Butcher steers and heifers, choice, \$7.85 to \$8; good, \$7.65 to \$7.80; medium, \$7.25 to \$7.75; common, \$6.50 to \$7. Cows, choice, \$6.75 to \$7; good, \$6.65 to \$6.75; medium, \$6.25 to \$6.50; common, \$5.25 to \$5.75; canners, \$3.50 to \$4.50. Bulls, best, \$7.50 to \$8; good, \$6.50 to \$7; medium, \$5.75 to \$6.25; common, \$5 to \$5.50. Milkers and springers, best, \$7 to \$100; medium, \$55 to \$70. Stockers and feeders, \$6 to \$7.50. Veal calves, choice, 11c. to 12c. per lb.; common to medium, 8 1/2c. to 9 1/2c. per lb.; eastern grassers, 5c. to 6c. Sheep and lambs, choice spring lambs, 11c. to 12c. per lb.; common, 9c. to 10 1/2c. per lb.; light handy sheep, 7 1/4c. to 8 3/4c. per lb.; heavy fat sheep, 4c. to 5c. per lb. Hogs, f. o. b., \$11.15; fed and watered, \$12 to \$12.35; weighed off cars, \$12.50 to \$12.60.

Breadstuffs.

Wheat—Ontario, (according to freights outside) No. 1 commercial, \$1.05 to \$1.07; No. 2 commercial, \$1.02 to \$1.04; No. 3 commercial, 96c. to 98c., according to freights outside; feed wheat, 91c. to 92c., according to sample. Manitoba wheat (track, bay ports)—No. 1 northern, \$1.41 1/2; No. 2 northern, \$1.39 1/2; No. 3 northern, \$1.35.

Oats—Ontario, No. 3 white, 48c. to 49c., according to freights outside. Manitoba oats (track, bay ports)—No. 2 C. W., 53c.; No. 3 C. W., 52 1/2c.; extra No. 1 feed, 51 1/2c.; No. 2 feed, 51c.

Rye.—No. 1 commercial, 96c. to 97c.

Buckwheat.—Nominal, 70c. to 71c.

Barley.—Ontario, malting, 66c. to 68c., according to freights outside; feed barley, 62c. to 64c., according to freights outside.

American Corn.—No. 3 yellow, 93 1/4c., track, Toronto.

Peas.—No. 2, \$1.75 to \$1.85; sample peas, according to sample, \$1.25 to \$1.50.

Flour.—Ontario, winter, new, \$4.50 to \$4.60, in bags, track, Toronto; new, \$4.60 to \$4.70, seaboard. Manitoba flour—Prices at Toronto were: first patents, \$6.90; second patents, \$6.40 in jute; strong bakers', \$6.20, in jute; in cotton, 10c. more.

Hay and Millfeed.

Hay.—New, car lots, track, Toronto, \$11 to \$12.

Straw.—Baled, car lots, \$6 to \$7, track, Toronto.

Bran.—\$22 per ton, Montreal freights; shorts, \$24 to \$25, Montreal freights; middlings, \$25 to \$26, Montreal freights; good feed flour, per bag, \$1.75, Montreal freights.

Country Produce.

Butter.—Owing to the continued dry, hot weather, butter advanced slightly on the wholesales during the past week. Creamery, fresh-made pound squares, 31c. to 32c.; creamery solids, 30c.; dairy, 23c. to 25c.; separator dairy, 26c. to 28c.

Eggs.—New-laid eggs kept firm, case lots selling at 30c. to 31c. per dozen, and cartons at 33c. to 34c. per dozen.

Cheese.—Old, 22c. per lb.; new, 17c. to 17 1/2c.

Beans.—Primes, \$4.50; hand-picked, \$5 to \$5.25.

Honey is beginning to come in—60-lb. tins selling at 12c. per lb.; 5-lb. tins at 12 1/2c. per lb.; one-pound sections at \$3 per dozen.

Poultry.—Live-weight prices—Spring chickens, lb., 23c.; spring ducks, lb., 15c.; turkeys, young, lb., 20c.; fowl, 4 lbs. and over, lb., 16c.; fowl, under 4 lbs., lb., 15c.

Hides and Skins.

City hides, flat 20c.; country hides, cured, 18c.; country hides, part cured, 17c.; country hides, green, 16c.; calf skins, per lb., 25c.; kip skins, per lb., 22c.; sheep skins, city, \$2.50 to \$3.50; sheep skins, country, \$1.50 to \$3; lamb skins and pelts, 55c. to 70c.; horse hair, per lb., 43c. to 45c.; horse hides, No. 1, \$5 to \$6; No. 2, \$4.50 to \$5.50. wool, washed, 42c. to 46c. per lb.; wool, rejections, 35c. to 38c. per lb.; wool, unwashed, 32c. to 35c. per lb. Tallow, No. 1, 6 1/2c. to 7 1/2c.; solids, 6c. to 7c.

Wholesale Fruits and Vegetables.

Receipts of both fruits and vegetables were generally very light on the wholesales during the last week with an active demand, and consequently firm prices.

Raspberries gradually began to decrease at the beginning of the week, until towards the end there were not nearly enough to supply the demand, causing the price to advance; the berries selling at 15c. to 18c. per box.

Red currants were very scarce, with a much better demand, advancing to 7c. to 9c. per box, and 65c. to \$1 per 11-qt. baskets.

Black currants came in fairly well; selling at \$1 to \$1.50 per 11 qts., a few extra choice quality going at \$1.75.

Cherries were quite active, selling at 65c. to \$1 per 11 qts., a few extra choice quality, well-filled baskets bringing \$1.10 to \$1.25.

Blueberries remained about stationary in price at \$1 to \$1.75 per 11 qts.

Peaches are gradually increasing in quantity, but those offered last week were poor quality, selling at 40c. to 75c. per 11 qts.

The imported fruits were of choice quality and advanced somewhat in price—California peaches selling at \$1.50 to \$1.75 per case; Georgias at \$3.50 per bushel; California pears at \$4 per case; plums at \$2 to \$2.50 per case; cantaloupes at \$1.65 to \$1.75 per basket, and \$4.75 to \$5 per case; oranges at \$4.75 to \$5 per case.

Lemons after soaring to \$9 and \$10 per case weakened slightly, selling at \$3.50 per case.

Tomatoes came in freely—a great number of them having ripened before they matured, due to the dry, hot

weather, they closed at \$1.25 to \$1.50 per 11 qts. for No. 1's, and 85c. to \$1 for No. 2's.

Cucumbers were very poor quality, selling at 60c. to \$1 per 11 qts.

Carrots and beets were quite scarce, advancing to 30c. per dozen bunches. Cabbage was a slow sale; the hot weather having dampened the demand. It sold at \$1.75 to \$2 per small, and \$2.75 to \$3 per large case.

Corn gradually increased in shipments, but it was very small, selling at 18c. to 20c. per dozen.

New potatoes kept quite firm at \$3.65 to \$3.75 per bbl.

Montreal.

Temperatures were very high and demand for fresh meat was much smaller than usual. Offerings were relatively small also, so that prices showed little enough change. Choicest steers offered sold as high as 9 1/4c. per lb., while car loads of good to fine stock sold at 8 1/2c. to 9c. per lb. Medium quality ranged from 7 1/2c. to 8 1/4c. per lb., and common ranged down to 6 1/4c. Offerings of ordinary quality were fairly large, and canning bulls sold at 4 1/2c. to 5 1/2c. per lb. Cows ranged from 5 1/2c. to 6c. for lower grades, and up to 7 1/4c. for best. Lambs and sheep were in good demand and supplies were none too large. Best lambs sold at 11 1/4c. to 12c. per lb., with lower grades down to 11c., while sheep were 7c. to 7 1/2c. for best, with 6 1/2c. to 7c. for less desirable quality. Hogs showed very little change, select lots selling at 12 1/2c. to 12 3/4c. per lb., with heavies at 11 1/2c. to 12c., sows being 9 1/2c. to 10 1/2c., and stags 5 1/4c. to 6 1/4c., weighed off cars.

Horses.—Prices were unchanged; heavy draft horses, weighing 1,500 to 1,700 lbs.; \$200 to \$250 each; light draft horses, weighing 1,400 to 1,500 lbs.; \$150 to \$200 each; small horses \$100 to \$125 each; culls, \$50 to \$75 each; fine saddle and carriage horses, \$200 to \$250 each.

Dressed Hogs.—The price of abattoir, fresh-killed stock showed increased strength and quotations ranged from 16 1/2c. to 16 3/4c. per lb.

Eggs.—New-laid eggs were quoted at 35c. a dozen. Straight-gathered stock was 30c., and No. 1 candled 30c., while No. 2 candled was 26c. to 27c. No. 1 select eggs brought 33c. There was some demand from the British market.

Butter.—The market for butter continued to display a strong tone, and prices advanced during the week. There has been no demand for export recently, and the stocks in store showed a slight increase as compared with a year ago. Quotations on finest creamery were 31 1/2c. to 32c., while fine stock changed hands at 30 3/4c. to 31c., and undergrades at about 1c. less. Dairy butter ranged from 23c. to 26c., according to quality.

Cheese.—At the cheese auction, No. 1 white Quebec cheese sold at 17 1/2c., while No. 2 sold at 16 1/2c.; No. 3, 16 1/2c., and No. 2 colored at 16 1/2c., these prices being above those of the previous week. Ontario country boards quoted 17 1/2c. to 17 1/4c.

Grain.—The market for oats showed increased strength, No. 1 Canadian Western selling at 55c. per bushel; No. 2 at 54 1/2c.; No. 3 at 54c.; extra No. 1 feed at 53 1/2c.; No. 1 feed at 53c.; No. 2 feed at 52 1/2c., and sample oats at 53 1/2c. per bushel, ex-store. Manitoba feed barley sold at 73 1/2c. to 74c. per bushel, ex-track.

Flour.—The market for flour advanced a total of 60 cents per barrel, in sympathy with continued advances in the price of Manitoba wheat. Manitoba first patents sold at \$7.20; seconds at \$6.70, and strong bakers' at \$6.50 per barrel, in bags. Ontario winter wheat patents were \$6.35, while 90 per cent's were \$5.50 to \$5.65 in wood, the latter being \$2.50 to \$2.60 per bag.

Millfeed.—The market for millfeed was firmer. Bran sold at \$22 per ton; shorts at \$24; middlings at \$26; mixed mouille at \$29 to \$30, and pure grain mouille \$31 to \$32 per ton, in bags.

Baled Hay.—The market for old hay showed little change, being \$20 per ton for No. 1; \$18.50 for extra good No. 2; \$17.50 to \$18 for No. 2, ex-track.

Hides.—Lamb skins were up to 90c.

each; beef hides were 21c., 22c. and 23c. for No's. 3, 2 and 1; calf skins being 31c. for No. 2, and 32c. for No. 1. Horse hides were \$1.50 for No. 3; \$2.50 for No. 2, and \$3.50 for extra No. 1. Rendered tallow was 8c. per lb., and rough 2 1/2c.

Buffalo.

Cattle.—With a light delivery of cattle here the past week, prices were raised generally from a quarter to half a dollar per hundred. There were some few loads of Canadians, best offered being some fat but plain, good weight steers that brought \$9 to \$9.25. Of a supply figuring 115 loads on Monday, there were not exceeding fifteen to twenty cars of shipping steers and these sold readily, best on offer running from \$9.75 to \$9.87 best handy steers reaching \$8.85, with yearlings from \$8 to \$8.85. Stockers and feeders were selling well, best being quoted up to \$7.25 to \$7.75. Quotations:

Shipping Steers.—Choice to prime natives, \$9.25 to \$10; fair to good, \$8.50 to \$9.15; best Canadians, \$8.50 to \$9; fair to good, \$8 to \$8.50.

Butchering Steers.—Choice heavy, \$8.50 to \$8.85; fair to good, \$8 to \$8.50; yearlings, prime, \$9 to \$9.25.

Cows and Heifers.—Best handy butcher heifers, \$7.40 to \$7.60; common to good, \$6.50 to \$7.25; best heavy fat cows, \$7 to \$7.50; good butchering cows, \$6 to \$6.50.

Bulls.—Best heavy, \$6.75 to \$7; good butchering, \$6.25 to \$6.50.

Stockers and feeders.—Best feeders, \$7.50 to \$7.75; common to good, \$6.75 to \$7.25; best stockers, \$7.25 to \$7.50; common to good, \$6 to \$7.

Milchers and Springers.—Good to best, in small lots, \$80 to \$100; in carloads, \$70 to \$75; medium to fair, in small lots, \$60 to \$65; in carloads, \$55 to \$60; common, \$40 to \$50.

Hogs.—Prices held to a high level the first half of the past week, and after Wednesday the market was on the decline. Monday one or two decks made \$10.55, but general run of sales on best grades were made at \$10.50, with pigs selling at \$10.25. Tuesday's trade was steady to a nickel higher, Wednesday the bulk of the good hogs made \$10.60, with pigs selling the same as Monday, Thursday a few early sales were made at \$10.60, though market closed with best grades selling from \$10.40 to \$10.50, and Friday the bulk of the crop moved at \$10.30, with pigs selling at \$10.00. Receipts the past week were 20,200 head, as compared with 19,624 head for the week previous, and 31,400 head for the same week a year ago.

Sheep and Lambs.—Market showed improvement the past week. Monday lambs sold at \$11.25, with culls \$9.50 down, the next three days top lambs were placed at \$11.50, with culls selling up to \$10, and Friday choice lambs reached as high as \$11.75. Top yearlings ranged from \$9 to \$9.50, best wether sheep made \$8.50, and ewes sold from \$7 to \$7.75, as to weight, heavy ones going at \$7 to \$7.25. Receipts for the past week reached around 3,600 head, being against 3,921 head for the week before, and 4,000 head for the same week a year ago.

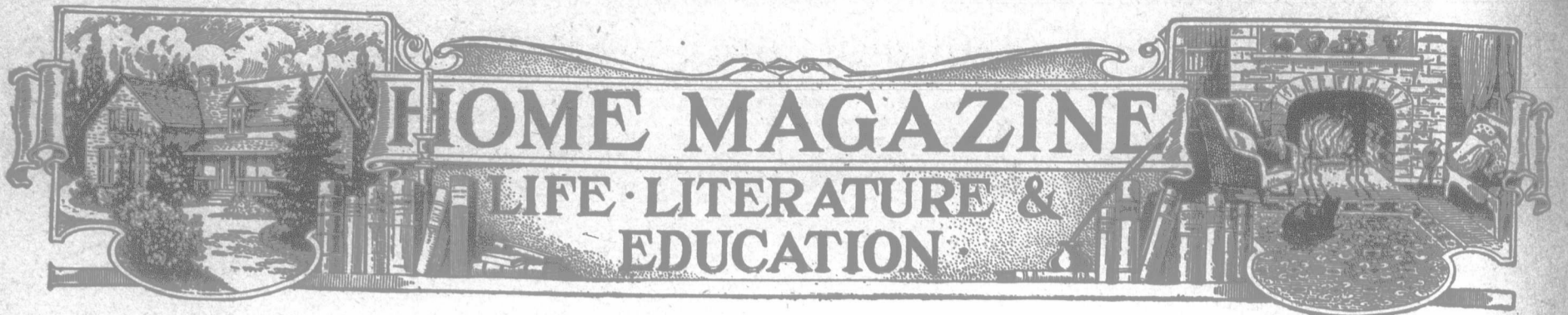
Calves.—Trade was good all week. Monday, Tuesday and Wednesday top veals sold at \$12.75 and \$13, bulk \$13; Thursday best lots reached \$13.50, and Friday the market was a half lower, bulk selling at \$13. For the past week the run reached around 2,000 head, as compared with 2,005 head for the previous week, and 2,400 head for the same week a year ago.

Cheese Markets.

Cornwall, 17 1/2c.; Montreal, finest westerns, 18c., finest easterns, 17 1/2c.; New York State, whole milk flats, fresh specials, 16 1/2c.; average fancy, 15 1/2c.; Iroquois, 17 1/2c.; Danville, Que., 16 1/2c.; Perth, 17 1/2c.; Picton, 17 1/2c.; Mont Joli, Que., 17 3/4c.; Napanee, 17 1/2c.

Coming Events.

National Exhibition, Toronto, August 26 to September 11.
Western Fair, London, Sept. 8 to 16.
Central Canada Exhibition, Ottawa, Sept. 9 to 16.



Harvest Time.

Pillowed and hushed on the silent plain,
 Wrapped in her mantle of golden grain.
 Wearied of pleasuring weeks away,
 Summer is lying asleep to-day.

Where winds come sweet from the wild
 rose briars,
 And the smoke of the far-off prairie fires;
 Yellow her hair as the golden rod,
 And brown her cheeks as the prairie sod.

Purple her eyes as the mists that dream
 At the edge of some laggard sun-drowned
 stream;
 But over their depths the lashes sweep,
 For summer is lying to-day asleep.

The north wind kisses her rosy mouth,
 His rival frowns in the far-off south,
 And comes caressing her sunburnt cheek,
 And summer wakes for one short week.

Awakes and gathers her wealth of grain.
 Then sleeps and dreams for a year again.
 —PAULINE JOHNSON.

Sam Slick and the Squire.

BY AUBREY FULLERTON.

Among this year's anniversaries will be the 120th birthday of Thomas Chandler Haliburton, who wrote the first funny book in Canada, and who, although a native Canadian, is given the credit of having created the first Yankee in literature. It is for his writings that we most remember him, although as a lawyer, a judge of the Supreme Court, and latterly a member of the British House of Commons, he was a man of affairs who did his part in the life of his day. As the author of "Sam Slick, the Clockmaker," he was at the time the foremost man of letters in Canada, and began what has since come to be known as the American school of humor, in which many later writers have followed his example.

It was down in Nova Scotia that Haliburton lived and wrote, and there in particular his name is regarded with very natural pride. He was an early graduate of King's College, Windsor, and at twenty-three began to practice law in old Annapolis. Nine years later he was appointed Chief Justice of one of the lower courts, and in 1841 was raised to the Supreme Court of Nova Scotia.

The fact that his family traced some distant connection with that of Sir Walter Scott may have had something to do with Judge Haliburton's literary career. He owned quite as much, however, and more directly, to that other great Nova Scotian, Joseph Howe, in whose newspaper some of his first productions were printed. Howe encouraged him to continue writing, for he saw the signs of genius in him, and thus it was that what began as a newspaper series of anonymous sketches, dealing with various phases of local life, grew presently into a book, which was published in 1836-37 under the full title of "The Clockmaker, or The Sayings and Doings of Samuel Slick of Slickville."

In these later days of many books very few first editions have so cordial a reception as was given to the Sam Slick book by the people of both Canada and the United States. American readers at once accepted its description of the travelling clockmaker as a fair and accurate picture of the typical Yankee trader, a character who was then much in evidence. In England, too, where Sam Slick was compared with Dickens' Sam Weller in "Pickwick," he was taken quite generally as the American citizen type. To some extent, at least, Judge Haliburton helped to fix both the character and appearance of the quaint old gentleman now known as "Uncle Sam," and a drawing supposed to represent the clockmaker, which appeared on the cover of one of

the early editions, bears a striking resemblance to the figure since accepted as the national American—long and lanky, as the Judge described him, with a suggestion of the Stars and Stripes in his old-fashioned raiment, and with an unmistakable shrewdness in his look and manner.

"Sam Slick" is not a novel in the ordinary sense. It is fiction, but without plot or connected story. What it purports to be is simply the rambling account of the doings and conversations of a Yankee clock peddler, who travels through Nova Scotia introducing into all kinds of homes cheap six-dollar clocks that he sells for forty dollars each. Two or three of these tours he makes in company of the author, who represents himself as the Squire, and to whom Sam Slick gives the benefit of a never-failing readiness to talk. His conversations are chiefly in the way of comment upon people and things in the country through which they are passing, and always he takes advantage of the opportunity to sound the praises of his country, "the greatest and most enlightened nation on the face of the earth." This constant brag is one of his chief characteristics, and is admirably carried out in Haliburton's inimitable sketches.

novel, with Sam Slick as its chief character it would have been, almost surely, a great success, for he had a remarkable understanding of human nature and as warm a sympathy with its better side as keen a scorn for its meanness. His familiarity with the type he pictured was gained, it is said through his experience at court, where he frequently had occasion to judge itinerant salesmen who were brought before him for dishonest peddling of cheap American wares. The one whom he takes for his hero is of the better sort, shrewd, sharp, and resourceful, but possessed of a strong and saving sense not only of humor but of real worth and character.

Many of the sayings of Sam Slick have now gained a solid footing in common speech, although their origin is often not known or thought of. The explanation that the Clockmaker gave to the Squire of the way he sold his clocks—"by a knowledge of soft sawder and human natur'"—has been made to apply to not a few modern cases, and is quite familiar; but he said a great many other things that are more pleasant to remember and equally typical of his wit and keen insight.

"Of all the seventeen senses," he declared on one occasion, "I like common

Sam Slick had a good deal to say, too, about farmers and farming in the course of his travels through Nova Scotia. He thought Canada had great opportunities as an agricultural country, but of course he held that we had much to learn yet. It is worth noting that he was one of the earliest advocates of crop-rotation, as the following quotation will show:

"The bane of this country, Squire,—and indeed of all America—is havin' too much land. They run over more ground than they can cultivate, and crop the land so severely that they run it out. A very large portion of land in America has been run out by repeated grain crops. . . . Our folks are not aware of it themselves to the extent of the evil."

That the Clockmaker had a very good opinion of farming as a lifework is evident from his reply to a woman who asked his advice about her boy:

"Make a farmer of him, and you will have the satisfaction of seein' him an honest, an independent, and a respectable member of society—more honest than traders, more independent than professional men," and more respectable than either."

Judge Haliburton was the author of five other books of a more or less similar kind, and an excellent history of Nova Scotia, all of them written in the midst of a busy life. His fame as one of Canada's greatest men of letters rests chiefly, however, upon his very entertaining story of Sam Slick, the Clockmaker.

When Nature's Guards Were Slain.

BY ELIZABETH POLLARD.

These sturdy guards once stood on the shores of lake Erie. They were giant trees placed there by nature to guard the land against the encroachment of the water. Their mighty roots intertwined along the shore forming an impregnable barrier against the contending element. Season after season the great waves thundered against the defences, but the guards stood firm, saying in effect, "Thus far shalt thou go, but no farther." This went on for centuries.

Then came the progressive white man. The shores of Lake Erie looked good to him, and he began converting the land into farms. Half a mile or so from the water a little stone church was built, and in front of it a road, with farms on each side of the road. The guards he regarded simply as "timber," and soon cut them down. At first the people thought it a great improvement as the trees had impeded the view. Later when the cold blast came tearing across the icy waste, they began to realize how much the tall crowns of the trees had sheltered their homes.

Worse was to come. When the waves came rioting along in spring they laughed in merrish glee. The gallant guards were slain, and they would have their way. The dead roots soon decayed, and the waves began carrying off the land. Gradually farms shrank in size, some almost entirely disappearing, the road became unsafe, and the little church was menaced. This was a methodist church. The French settlers didn't believe in methodism, but they believed in churches, and had none of their own, so came in friendly like, and bye and bye buried their dead in the little graveyard. That is why you may see by the names on the headstones that all races and denominations are peacefully resting together in "God's acre."

The church is long since deserted. It is dismantled and abandoned, the only sign of life about it being the wild birds that nest in its crevices, and the creeping vines provided by nature to conceal



Sam Slick, the Clockmaker, Setting Out from the States for a Trip to Nova Scotia.

From the cover page of an early edition.

So much Americanism, especially when accompanied by quite as unflinching a supply of satire against themselves, might very naturally have been offensive to Nova Scotians, and to Canadians in general, but mixed in with the brag and the satire was a great deal of wit and wisdom, sound sense, quiet philosophy, and good-natured fun. Americans read the sketches and enjoyed the caricatures of their own Yankee type, and Canadians read them with equal appreciation of the outsider who still saw with great clearness into both the virtues and failings of their country.

If Judge Haliburton had written a

sense as well as any on 'em, arter all."

Other opinions of this shrewd and thoughtful observer, mixed in with his nonsense and satire, were expressed as follows:

"The misfortin' is we are all apt to think Scriptur' intended for our neighbors, and not for ourselves."

"The road to the head lies through the heart."

"The houses hope builds are castles in the air," a saying that we have used much without recognizing its source.

"Push on—keep movin'—go ahead," was the motto he gave his own country but it was his own personal rule as well.

and beautify decay. And the waves of the lake are clamoring for its destruction, and seeking to disturb the repose of the dead. Man is now striving to replace nature's barrier by cement, but with indifferent success.

All along the waterways of Canada like guards are posted. Will men in their blind greed continue to slay them, thus inviting disaster? Trees befriend man at every turn. They spread out a leafy canopy to shelter man and beast from the burning sun, and sturdily break the power of the tornado that lays waste the treeless land: they provide man with fuel, the material with which to build his house, and furniture. Their uses are incalculable, then why not conserve the trees?

Hope's Quiet Hour.

Listen!

I have yet many things to say unto you, but ye cannot bear them now.—St. John 16:12.

When our Lord left His disciples without His visible presence He promised to be with them always, even unto the end of the world—and He always keeps His promises, so we know He is with His disciples here and now. When those who had taken each day's orders from their Master's lips could no longer hear His voice, it was not because He had nothing more to say to them.

Last words—how inadequate they are! The soldier leaves for the "front" with a cheery "Good-bye," which is exactly the same word he used two years ago when he went off in the morning to his ordinary day's work. He has many things to say, but the woman who is making a brave effort to keep up "cannot bear them now," and he couldn't express his deepest feelings in words if he wanted to do so. In that hour of intense feeling, when our Lord drew His dearest earthly friends close to His breaking heart, He could not make them understand His love as they would understand it afterwards. They had to grow in knowledge of Him before His greatest messages could reach their souls. Look at a soldier with his little child in his arms before he starts off to the war. His strained embrace and the sorrow in his face make the child cry, in quick sympathy. The father goes away, and the childish tears are dried in a few minutes. He has many things to say to those at home, and yet his letters are often full of commonplace statements.

Do his unspoken messages of love fail to reach their mark, then? We all know better than that, don't we? Even the printed card (with its official declaration that the soldier is well and has received the home letters and parcels) is eloquent in its expression of love. Our Lord told His sorrowing friends that the Spirit would convey to them the words they could not then "bear" from His lips. In these days the air is thrilling with wireless messages. Private "wireless" stations connect with every trench and almost every house. The man on duty at a "listening post" is straining his ears and keeping his whole attention fixed on the enemy's movements. Yet all the time he is receiving continuous reinforcements of courage and strength from God, while the women who love him are acting as a channel of divine power.

Lift up your hearts to God, and the Spirit of truth will faithfully deliver the messages you cannot put into spoken or written words.

But I did not intend to write about the war,—my pen seems to turn in the direction of France or Flanders of its own accord. When I asked you to "listen" it was to listen to Him Who is still the "Word" of God and still speaking to us.

"In holy books we read how God hath spoken
To holy men, in many different ways;
But hath the present world no sign
or token?
Is God quite silent in these latter days?"

Mary of Bethany was not too busy to sit quietly at the feet of her Guest, quietly listening to Him. Perhaps there were long silences sometimes, while she sat there. Those who are nearest each other in spirit do not feel it necessary to "keep up the conversation" every moment. Martha cared enough for her Lord to listen to Him much of the time, I am sure of that. But she was a busy housekeeper and could not understand why her sister wasted time by sitting with hands folded. Mary was accused of wasting the precious ointment, when she poured it out lavishly upon her Lord; and she was accused of wasting time, when no household duties seemed of any consequence as compared with Him. And that same week her Friend hung in agony upon the cross!

Many have ventured to contradict their Lord and have asserted, as Martha did, that Mary was idle. Ask the soldiers, who are bracing themselves to face awful peril, what they think of the matter.

One spends his last hours at home very quietly. The woman who makes his world is very silent, too. They do not want to talk. They are silent in their love, and those hours are sacred and most precious to both.

Another soldier has no chance of a quiet hour. His wife shows her love by fussing about him in eager attentions. Even when he begs her to sit down for a minute beside him, and she reluctantly stops her work, there is no restfulness possible. There is so much that she wants to do for him, how can she afford to waste time?



The Little Stone Church Menaced by the Waves.

Our Lord appreciated Martha's attentions and did not doubt her love, but He said—and His words are authoritative—that Mary had chosen the "better" part.

He has not changed. He still loves the "Marthas," who are so eagerly serving Him that they can hardly spare time to read His written words, or to speak to Him in prayer. As for silently listening, to find out whether He is ready now to say some of the words which we could not "bear" or understand before, I am afraid most of us never think of doing such a thing. He "loved Martha," but Mary brought Him more joy.

What a mistake we make when we try to deliver God's messages to other souls, without going to Him first and listening to what He has to say. Our Master does not send us out to deliver a dead message, sealed from our own understanding. We are not to be like a phonograph or a player piano, telling out sounds with the accuracy of a machine. A Sunday school teacher who is thoroughly trained and educated may impart information to the pupils and yet leave them entirely ignorant of God; while another—who seems to be far less competent—may lead child after child to the feet of the Living Lord. We cannot teach others what we do not know ourselves; nor pass on living messages from our ever-present King unless we go straight to Him for them. How many of the things He has to say are unheard by

us, because we are living in too great a rush—working, playing, reading, writing or talking—to have any time to spare for listening. It was said of John Wesley that he sometimes spent whole days lying on his face, "prostrate before God." Was that time wasted? Let those who were thrilled and inspired by his burning words say.

The word of God is still "quick (living) and powerful." It is sounding in our ears to-day, and we are forced to listen. The thunder of the guns in Europe declares the awful consequences of selfish ambition and greed. We are shown the horrible ugliness of cruelty and the beauty of self-sacrificing devotion. Which shall we choose for our ideal of life? Pilate offered the people the choice of JESUS, or a robber—and they chose Barabbas! Those who choose the sword for their idol must expect to perish by the sword. We each choose an ideal, though sometimes the choice is made unconsciously,—and we have only ourselves to blame if we choose to follow a "will-o'-the-wisp" instead of the Light of the world.

Those who follow after righteousness, obeying the voice of God as they understand it, will find the way made plain step by step. The word of God is a lantern to the "feet"—showing only a step or two ahead—but the path of the just brightens more and more until the perfect day dawns and all is made clear.

Our Lord knew that it would be better for the disciples to lose His visible presence, and learn to depend more and more on the "still small voice" of the

We are living in tremendous times, and the call to prayer and active service is sounding in our ears. But, in this war, terrible disasters have followed hasty advances without adequate reinforcements. The demands upon us to-day are far beyond our own power to supply—and yet God never demands impossibilities. He (our Great Ally) is prepared to give more than we ask or think. Our past failures need not make us lose heart, for God is with us for our Captain.

"Courage, then, brethren, let us go forward together! Jesus will be with us. . . . Behold, our King entereth in before us, and He will fight for us. Let us follow manfully, let no man fear any terrors. . . . What should I do in these so great tribulations and straits, unless thou didst comfort me with Thy holy words?"

He is speaking to you now—some word of special counsel. Listen!

DORA FARNCOMB.

The Windrow

The city council at Niagara is planning to illuminate the falls completely at night. Wonderful light effects will thus be attained.

An "epidemic" of hammerhead or blue nose sharks along the Atlantic coast of the United States has made it necessary that many bathing resorts be protected with nets. On July 1st a man was killed by one of the monsters at Beach Haven, N. J., and since then three others have met death in the same way.

Dr. Edward Stilgebauer, a German, has written a novel "Love's Inferno," (Stanley Paul Pub. Co., London, Eng., 6s.) whose purpose is frankly to expose the guilt of Prussia and the crime of war. Needless to say, Dr. Stilgebauer finds it impossible to live in Germany; he is at present in Switzerland.

The Y. M. C. A., which has done such splendid work since the beginning of the war, has at present 171 huts and centres in France and Flanders, 35 in India, 8 in Mesopotamia, 10 in British East Africa, 48 in Egypt, 9 in Malta, 5 in the Aegean Isles, 5 in Salonica and 1 in Italy. At these beds and baths are supplied at the lowest possible cost whenever possible, and guides and writing-paper are free, the stationary bill alone amounting to £1,000 per week.

Where is the Soul During Unconsciousness?

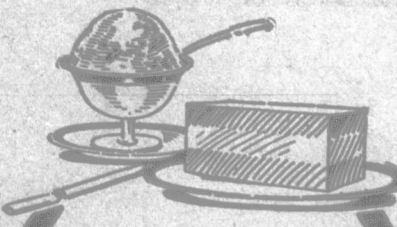
In a most interesting letter to Light, Sir Arthur Conan Doyle raises this question:

"I have had my attention drawn rather strongly to this point by two instances of recent occurrence, one personal and the other in my family.

"The first and slighter of the two occurred to myself. A fortnight ago I had laughing gas at the dentist's. I was taken there inside a cab, my wife and two little boys being with me. The cab drove on whilst I was being operated upon. While under the gas I was intensely conscious that I had returned to the moving cab, and that I could very vividly see the occupants, while well aware that they could not see me. This, of course, might be subjective entirely, but the impression was very clear.

"The second incident is more convincing. My son Adrian, aged five, was grievously ill of pneumonia, and was lying half comatose with a temperature of 105 deg. My wife, who was nursing him, left him for a moment and went to fetch something from the nursery, two rooms away. The elder boy, Denis, was standing on a chair, and on getting down he trod upon some tin soldiers on the ground. My wife, anxious not to leave the invalid too long, hurried into the sick room. The child opened his eyes and said, 'Naughty Denis, breaking my soldiers!'

"He had never spoken of soldiers during five days of illness, so that the remark was beyond the reach of coincidence. Nor was it thought-transference from my wife's brain,



Of Course You Need
BENSON'S
CORN STARCH

Ice Cream comes out of the freezer with a velvety smoothness—and a new deliciousness—when it is made with BENSON'S.

And it is pretty hard to ask for anything more delicious than a Chocolate Blanc Mange or Cream Custard with Fruit, made of Benson's Corn Starch.

Our new Recipe Book "Desserts and Cakes" tells how and how much to use. Write for a copy to our Montreal Office—and be sure to tell your grocer to send BENSON'S, the standby in Canada for more than half a century.

THE CANADA STARCH CO. LIMITED
MONTREAL, CARDINAL,
BRANTFORD, 216 FORT WILLIAM.



MAKES YOUR WASH-DAY

Here, at a moderate price, is a remarkable machine that not only washes clothes clean, but wrings them dry too. Every farm positively needs a

PAGE WASHER \$32.50 delivered anywhere in Ontario

Smooth-running, simple, it never gets out of order; never gets "tired". Never injures the clothes; just washes them thoroughly, thus saving you the hardest part of the household work.

Let us tell you all about it—and about our money-back plan.

The Page Wire Fence Co., Limited
1143 King St. West, Toronto



If you want a good Fanning Mill, and test it yourself beside any fanning mill in existence, and if it does not, after paying for it, do cleaner and faster work, and easiest running mill built, you will get all monies paid for mill refunded. Once you see

THE KLINE

in operation we are positive you will not part with it. It is absolutely unequalled for separating wild oats, chaff, light and small grain, smut and seeds. Has capacity of 100 bushels per hour. Write for further particulars.

KLINE MFG. CO. Beeton, Ontario

The Perfect Piano for the Home.

WILLIAMS

The choice of the World's Great Artists

WILLIAMS PIANO CO.
Oshawa, Ontario.

as she is clear that she was thinking only of the invalid. I can only explain it by the supposition, which can be supported by a volume of evidence, that the soul can be, and probably is always, out of the body at such times, and that occasionally under rare conditions which we have not yet been able to define, it can convey to the body the observations which it has made during its independent flight.

"Such conditions must have existed in the classic case of Sir Rider Haggard. It will be remembered that he wrote a letter to the Times some years ago, giving circumstances in detail. He had lost a favorite dog. In his sleep he saw it lying near a certain point of the railway. Upon searching it was actually found there. There was no particular reason why this point should have suggested itself to him, more than any other in the neighborhood.

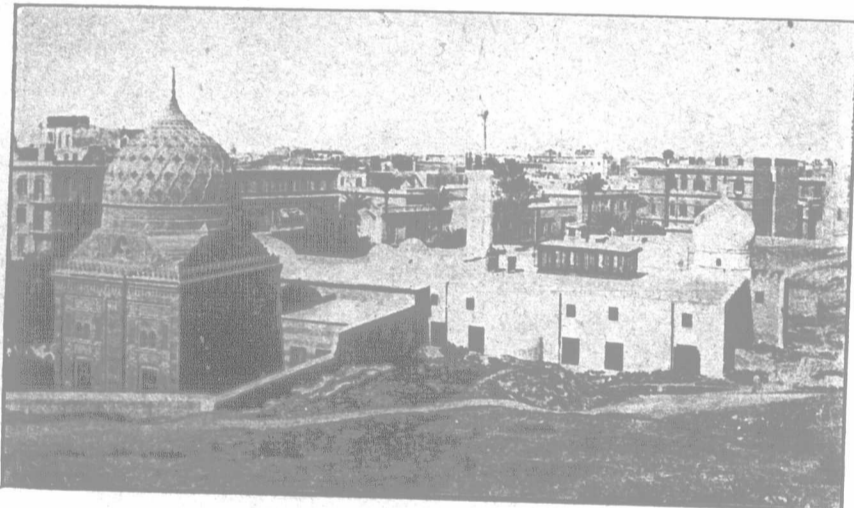
"Another classic case is that of the Red Barn murder, in the eighteenth century. . . . There are a great number of such cases on record. They are all readily explained on the supposition that the soul drifts out like a captive balloon, attached always by some filament which draws it back in an instant to its body. There is nothing supernatural in such a supposition. It is only the unfolding of a fresh law in a region which is still but little known.

"The matter is of profound religious significance. There is, as it seems to me, something very surprising in the limited interest which the churches take in psychical research.

"Never Again!" For Russia.

Fourteen months without vodka has, according to her own statement, made a perceptible—nay, a considerable—difference with Russia. We are told that all the officials, from the Czar down, believe that prohibition has come into the country to stay; for the benefits that have accrued in one year are too valuable to lose by a return to the old way again. A Petrograd report, appearing in the Wichita Beacon among other papers, gives a combined official and semi-official estimate of what these benefits have been:

- Crime (all kinds) has decreased 62 per cent.
- Absenteeism in factories has fallen 60 per cent.
- Suicide-rate has dropt enormously.
- Hospitals formerly overcrowded are not filled.
- Efficiency in factories increased 10 to 15 per cent.
- Practically every inhabitant is at work.
- Savings-deposits have increased 8 per cent.
- Fire-damage has fallen off 38 per cent.
- Wages in some districts raised 500 per cent. (This applies to peasants working as day-laborers.)
- People are eating better and costlier food.
- Better clothing is worn by the poorer classes.
- Agricultural-implement sales 60 per cent. larger.
- Imprisonment decreased 72 per cent.
- Offsetting these remarkable results of Russia's sudden dryness is this startling development:
- The death-rate from drunkenness has increased enormously!—Literary Digest.



Nebi Daniel Mosque, Alexandria.

The Ingle Nook.

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

A Letter from Egypt.

It has been too hot, of late, for our Ingle Circle members in Canada to drop into the Ingle Nook, but from far away Egypt has come a letter from a British soldier, who kindly permits me to pass it on to Advocate readers. The brave writer surely has done his bit. He was twice sent home to England from France because of wounds, and was also terribly wounded at the awful landing at Suvla Bay—the worst occurrence in the long catastrophe of the Dardanelles. He now writes from Kasr-el-Nil Barracks, Cairo, Egypt, as follows:

Dear Junia.—I expect you will think I have forgotten all about you by this time. You will see by the address that I am once more abroad. I am afraid my fighting days are finished now and I don't think I shall see any more active service. However, I think I have done my share. When I first came out here last February, I went to my battalion which was doing outpost duty on the desert. It was terribly hard work out there. You can guess what we had to put up with when I tell you we were only allowed one pint of water a day for drinking purposes and even that had to be boiled before we were allowed to have it. We were only allowed one

wash a day, having to march about half a mile to the washing place. Even that water had to be chemically treated before we could use it. This was all on account of a germ which exists in the Nile, called Buelherzia, which we soldiers nicknamed "Bill Harris". Of course the great majority of these outpost camps get their water from the Nile or its tributaries and canals, so they all have to go through the same process. One other difficulty we had to contend with was the tremendous dust and sand storms. We could generally judge when they were coming by the peculiarly sultry and stifling atmosphere. It would be a particularly hot day and about four in the afternoon (the sand storms generally come about the same time in the day) we would feel a very hot wind spring up. Then in the distance would appear what looked like a big bank of fog. In about ten minutes it was on us, and blankets and other things would fly, and you couldn't see five yards in front of you. This might last anywhere from 15 minutes to 3 or 4 hours, and the only thing we could do was to get into our tents when we saw it coming and trust to providence to keep our tent up. There is an eye disease very prevalent on these Egyptian deserts, called conjunctivitis. I managed to get it twice and nearly lost my sight. So they sent me to hospital here and I am now working as a clerk in the Railway Transport Officer's office. I don't think I shall go back to my unit again as my wounds received at Suvla Bay were so bad as to make it almost impossible for me to do any marching now. Still I am doing useful work, although I would rather be somewhere else. The heat is something tremendous. Some days it mounts to 112 degrees in the shade, so you can guess what it is like. I am getting more accustomed to it now, but I don't think I should ever get to like the country. One of these nights we are going to make a moonlight trip to the pyramids and I will try and write you some little articles which you might find interesting enough to use in the paper. I should like very much to be with you now and hope this truly terrible war must soon finish. Tell Mr. T. that when I get a chance I am going to do him an article on the Irrigation of the Deserts, which I think might be of some interest to his readers. I am enclosing a few post cards of Alexandria which I thought you might like. I have only been a few days in Alexandria so can't say much about it. However, I think that when you have seen (and smelt) one town in Egypt you have seen (and smelt) the lot. I think that is all I have to say now, but will write again soon.

G. T. N.

Things to Eat in Hot Weather.

- Tapioca Pudding.**—Stew some apricots or other fruit, keeping them rather thick. Have 3 or 4 ounces of tapioca soaked and boil it until clear. Pour over the fruit and bake half an hour. Serve cold.
- Peach Salad.**—Slice firm peaches, sprinkle liberally with sugar and the blanched meat of almond or pecan nuts. Serve with cream. To blanch the nuts pour boiling water over, drain and rub off the skins.
- Peaches and Cantaloupes.**—Fill halves of any ripe cold musk melons with sliced peaches. Sprinkle with sugar and serve with whipped cream.
- Peach Snow.**—Skin peaches and put through a sieve. Add the stiffly beaten whites of eggs, an egg for each peach, beating them in gradually. Sweeten with powdered sugar, pile on a glass dish and serve with cream.
- Egg and Nut Salad.**—4 hardboiled eggs, 1 cup chopped walnuts, 1 bunch parsley. Remove the yolks from 2 of the eggs and chop the rest fine. Season with salt and pepper. Mix in the nuts and some salad dressing, reserving the 2 yolks for the top. Chop the yolks fine and sprinkle over. Garnish with parsley. If preferred the nuts may be omitted and the egg and dressing alone served on lettuce.
- Chicken Salad.**—2 cups each diced chicken and celery. Mix together and season with salt, pepper, and salad dressing, or vinegar and salad oil. Let stand an hour and serve on lettuce.
- Bellevue Tomato Salad.**—Peel firm ripe tomatoes and cut in halves. Scoop out the centers and chill. At serving time fill with a salad made of equal

parts apples, with n
Souf
eggs v
spoon
egg
and st
boiling
turn o
from t
a rich
pour
The cu
or oran
Whi
butter
vanilla
2 cups
and a
whites
layers.
Choc
cream,
1 cup
teaspo
Put th
add th
stir in
stirring
the ch
add 2
tablesp
and ac
mixture
and th
freeze.

If y
boot p
rubbed
polish.

Oil o
cucumb
drachm
the oil
gredient

Tear
dampen
over th
will coll

If you
on your
plaster
danger

Any
have bec
ly if wet
shine.
ing is c
on only

Old b
towels.
hem the

Nothin
everyone
smell of
perspire
to kill t
likely to
are thos
continua
as, for e
There ar
stores fo
very simp
borax. C
must be
applied a
the feet
should be
feet sho
before p
the powd
obtained
that have
solution c

It is sa
away by
oil of sassa
the ants
every oth

parts of diced apples and celery, or apples, celery and pineapple, mixed with mayonnaise dressing.

Souffle Float.—Beat the whites of eggs very stiff, adding to them ½ table-spoon sifted powdered sugar for each egg. Heap these whites into small cups and stand in a covered steamer over boiling water until cooked. When done turn out gently, scoop out a teaspoonful from the top of each mound and fill with a rich custard made from the yolks, and pour more custard around the base. The custard may be flavored with vanilla or orange. Serve ice-cold.

White Cake.—Cream together ½ cup butter and 1½ cups sugar; add 1 teaspoon vanilla and ¼ cup milk. Sift together 2 cups flour and 1 teaspoon baking powder and add. Lastly add 4 well-beaten whites. Bake either in a loaf or in layers.

Chocolate Ice Cream.—One quart cream, ½ pint milk, 1 pint thin cream, 1 cup sugar, 1 oz. chocolate, 1 egg, 1 teaspoon flour. Put the milk on to heat. Put the flour and ½ cup sugar in a bowl, add the egg and beat, until light, then stir into the boiling milk and cook, stirring all the time, until done. Scrape the chocolate, and put in a small pan, add 2 tablespoons of the sugar and 2 tablespoons hot water. Stir until smooth and add to the cooking egg and milk mixture. When done add the cream and the rest of the sugar. When cool, freeze.

The Scrap Bag.

Handy Boot Polish.

If you happen to have run out of boot polish a few drops of lemon juice rubbed on briskly will give a brilliant polish.

Cucumber Cold Cream.

Oil of sweet almonds, 80 drops; fresh cucumber juice 1 ounce; lanolin 4 drachms; oil of rose 4 drops. Melt the oil and lanolin then add other ingredients and beat well.

A Sweeping Hint.

Tear newspapers into small bits, dampen them and scatter plentifully over the carpet before sweeping. They will collect most of the dust.

For Sensitive Feet.

If your shoes bid fair to rub a blister on your heel, put a piece of adhesive plaster over the sensitive spot, and all danger of soreness will be removed.

To Whiten Clothes.

Any cotton or linen clothes that have become yellow will whiten beautifully if wet and hung out in the bright sunshine. Repeat the process until whitening is completed. The bleaching goes on only while the clothes are wet.

Use for Old Bedspreads.

Old bedspreads make excellent bath towels. Cut them the size desired and hem them all around.

Profuse Perspiration.

Nothing is more disagreeable to everyone within nose-reach than the smell of perspiration, hence those who perspire freely should adopt every plan to kill the odor. Offensiveness is most likely to occur when the regions affected are those that come into close and continual contact with the clothing as, for example, the feet and arm-pits. There are preparations sold in drug stores for removing the odor, but a very simple one is to apply dry powdered borax. Of course scrupulous cleanliness must be observed, and soap and water applied at least twice a day. When the feet perspire freely the stockings should be changed every day, and the feet should be powdered with talcum before putting on the stockings. If the powder is disliked, good results are obtained by wearing white stockings that have been soaked in a saturated solution of boric acid.

To Drive Away Ants.

It is said that ants may be driven away by keeping a cloth saturated with oil of sassafras on the shelves or wherever the ants bother. Renew the sassafras every other day.

The Beaver Circle

Senior Beavers' Letter Box.

Dear Puck and Beavers.—This is my first letter to your Circle. I read the pieces of poetry, jokes, riddles and letters every week, and like them very much. I live on a fruit and grain farm. Our house burned down on April 1st, but a new one is being built now. For pets I have a cat, dog, and pair of bantams. The bantam hen hid her nest this spring and hatched out twelve little ones, but seven of them died. I am in the senior fourth class at school, and am trying my entrance next year. If I pass I expect to go to high school. Isn't this war terrible? I have no brothers to go but our hired man enlisted last July, and we get the news that the soldiers are allowed to send from him. As my letter is getting rather long I will close, hoping that the w. p. b. is out calling when this arrives.

MARGARET ALTHOUSE.

Grimsby, Ont.

P.S.—I wish some of the Beavers my own age (14) would write to me.

Dear Puck and Beavers.—We are two cousins. We have taken "The Farmer's Advocate" as long as we can remember, and prize it very much. We enjoy reading the letters that the others write. We are thirteen years of age and live near town. We had a very wet spell, but it is drying up nicely now. We read your serial story, "The Chaperon" and liked it very much. We are what you call book-worms. Some of the books we have read are: Beauty and the Beast, Jack and the Beanstalk, Tom Thumb, Uncle Tom's Cabin, Black Beauty, Alice in Wonderland, and some Mildred and Elsie books. I guess we must close with a few riddles.

If butter is 26 cents a pound; how much would you get for a cent and a quarter? Ans.—One pound.

If you were to ride a donkey what would you represent? Ans.—A pair.

When was beef the highest? Ans.—When the cow jumped over the moon.

Hoping this will not get acquainted with the waste-paper basket we are, yours truly,

MARY AND MADELENE WAGLER.
Millbank, Ontario.

Honor Roll.—Leila Kottmeier, Harold Jenkins, Carl Kottmeier, Bert Wilson, Naomi Ardagh, Isabel Lockhart.

Beaver Circle Notes.

Bert Wilson (age 12) R. R. 3, Warton, Ont., wishes some of the Beavers to write to him.

Riddles.

As I was going over London bridge I met a man with a wagon full of fingers and thumbs. What was it? Ans.—Gloves.

As I was passing by a store I saw a box full of heads and eyes. Ans.—Pins and needles.

MARY E. GIBBINGS.

Clinton Ont.

OUR JUNIOR BEAVERS.

[For all Beavers up to Junior Third, inclusive.]

Poor Little Cake of Soap!

I loved my little cake of soap,
My aunt she gave it me,
And if I squeezed it very hard,
It foamed up beautifully.

I left it in the water once,
When I went off to ride—
I could not find it then, because
My little soap had died!

GEORGINE MILMINE.

Junior Beavers' Letter Box.

Dear Puck and Beavers.—This is my third letter to your charming Circle. My father has taken "The Farmer's Advocate" for twenty-five years. We

YOU do not have to be a mechanical genius to keep your Chevrolet in running order.

For the man—or woman—who doesn't know a piston from a spark-plug, it's a great thing to be able to sit at the wheel of a car that runs miles and miles without need of attention.

Now priced just ten dollars higher
—\$685.00 f.o.b. Oshawa.

CHEVROLET MOTOR COMPANY Limited OSHAWA

London, Ont., Dealer:
ONTARIO GARAGE AND MOTOR SALES

CHEVROLET

Well-raised Pie Crust That Digests Unconsciously follows the use of

FIVE ROSES FLOUR

for Breads Cakes Puddings Pastries

MADE OF THE WOODS MILLING CO. MONTREAL

LINSEED OIL CAKE
"Maple Leaf" Brand
The best supplementary feed for live stock, and the "Veterinarian", the best book on the treatment of Diseases in Cattle. This book sent free with a trial ton order of Oil Cake.
Write to-day for lowest prices.
Canada Linseed Oil Mills, Limited Toronto and Montreal

THE SHERLOCK - MANNING
20th Century Piano IS
Canada's Biggest Piano Value
SAVE \$100
Write Dept. 18 for Catalogue T, which tells how.
The Sherlock-Manning Piano Co., London (No street address necessary) Ontario

Live Poultry

We are open to receive shipments of live poultry at all times. Highest market prices paid, according to quality. Write for quotations.

Henry Gatehouse & Son
Wholesale and Retail. Fish, Poultry, Eggs and Vegetables.
348 Dorchester Street West MONTREAL

When Writing Please Mention this Paper

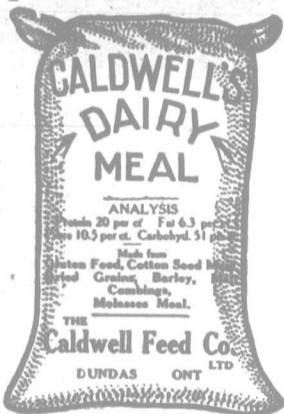
SAVE YOUR MONEY

FOR THE
DOMINION WAR LOAN
TO BE ISSUED IN SEPTEMBER.

By purchasing a bond you will help
to **WIN THE WAR** and obtain for
yourself an investment of the highest
class yielding a most attractive rate
of interest.

DEPARTMENT OF FINANCE
OTTAWA.

CALDWELL'S DAIRY MEAL



A milk producer

It supplies not only the protein, but the other necessary ingredients required—in a balanced ration—for high milk production.

Palatable, Nutritious

Caldwell's Dairy Meal is not only balanced, but easily digested and assimilated. It contains a variety of pure high-class material, including our Cane Molasses Meal.

Analysis—Protein 20%,
Fat 6.3%, Fibre 10%

Secure Caldwell's Dairy Meal at your feed store, or write us, and we will supply you promptly. Booklet and prices on request.

THE CALDWELL FEED & CEREAL CO., LIMITED
Dundas, Ontario



ALMA LADIES' COLLEGE
OPENS ITS THIRTY-SIXTH
YEAR ON SEPTEMBER
TWELFTH: NINETEEN
HUNDRED & SIXTEEN

For calendar and terms: R. I. Warner M.A. D.D., Alma College, St. Thomas, Ont.

ONTARIO LADIES' COLLEGE

and Conservatory of Music and Art, Whitby, Ont.
A SCHOOL OF IDEALS AND AN IDEAL SCHOOL FOR GIRLS
Healthful, picturesque location, with the outdoor advantages of the country as well as the cultural influence of Toronto, which is only 30 miles away.
Academic courses from Preparatory work to Junior Matriculation, Teacher's Certificates and First Year University; Music, Art, Oratory, Domestic Science, Commercial Work, Physical Training by means of an unusually well equipped gymnasium, large swimming pool and systematized play.
COLLEGE RE-OPENS SEPTEMBER 12th, 1916
FOR CALENDAR WRITE REV. F. L. FAREWELL, B. A., PRINCIPAL

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

live on a farm of two hundred and twenty-five acres, and have lots of animals for pets. We have a dog called Sport. I go to school every day I can. Our teacher's name is Miss Moses; we like her fine. I have a mile and a half to walk every morning and night. I like reading very much, and I have read quite a few books. Some of them are Beautiful Joe, The Swiss Family Robinson, Born to Serve, Woodland Voices, A Drop of Ink, The Power of Kindness and others. We are having real warm weather now. The farmers are busy at the hay. My letter is getting long, I guess I will close, hoping the waste-paper basket has had its dinner when this arrives.

LOUISE FRASER.
(Age 10.)

Bluevale, Ont.

Dear Puck and Beavers.—This is my first letter to your charming Circle. My father has taken "The Farmer's Advocate" as long as I can remember. I like to read the letters from the Beavers. For pets I have a kitten; her name is Bessie, and a calf named Peter. We can drive him. We are milking eight cows and ship our cream. As my letter is getting long I will say good-bye.

CORA MCGORMAN.
R. R. No. 3; Cottam, Ont.

If I Were Burbank!

If I were Burbank and I knew
To what a height meat prices flew,
I'd come with magic wand in hand
To rescue my poor native land;
I'd unite lamb with centipede
(A charity 'twould be indeed)
For then the poorest would be able
To serve a leg of lamb at table.

If I were Burbank and I knew
How gardening breaks one's back in two
I'd roll potatoes, corn and beans
Into a ball by subtle means;
I'd plant it in a six-inch space
And carefully cultivate the place;
Then that composite seed should yield
A varied crop o'er all the field.

If I were Burbank and I knew
What drudgery we poor women do,
I'd transform leaves to pots and pans,
Once used, they'd rest in garbage cans;
For oh! the height of all my wishes
Is to be rid of washing dishes.
Dish cloths! dish pans! they all might go,
If Burbank only willed it so!

As Burbank I'd remove the curse
From this benighted universe;
Each woman should be young and fair
With tons of waving golden hair;
Each man should own a house complete,
Well stocked with bonds on Easy Street;
If I were Burbank, what a lot
Of good I'd do! Alas! I'm not!
MARY VISHER, in American Cookery.

Thousands of Men Required for Harvesting in Western Canada.

Thousands of Men are required to help in the great work of harvesting the Western crop. The task of transporting to the West this great army of workers will fall to the lot of the Canadian Pacific Railway.

Excursions from points in Ontario to Manitoba, Saskatchewan and Alberta will be run, and special trains operated, making the trip in about thirty-six hours, without change or transfer.

"Going Trip West," \$12.00 to Winnipeg.

"Returning Trip East," \$18.00 from Winnipeg.

Consult C. P. R. Agents regarding transportation west of Winnipeg.

Going Dates.

August 17th and 31st—From Toronto-Sudbury Line and East, but not including Smith's Falls or Renfrew, also from Main Line East of Sudbury to, but not including, North Bay.

August 19th and September 2nd—From Toronto, also West and South thereof.

Further particulars from Canadian Pacific Ticket Agents, or W. B. Howard, District Passenger Agent, Toronto.

Current Events.

Sir Roger Casement was executed on August 3.

The Deutschland left Baltimore for her under-sea voyage on August 1st.

Recent Zeppelin raids on England have been ineffectual, owing, it is reported, to the use by the British of a new electrical invention that puts their steering-gear out of order.

Verdun is now reported as safe and the Germans withdrawing. Everywhere along the battle lines the war goes well for the Allies. The Russians are now within 19 miles of Kovel.

There is a rumor that Roumania has broken with the Turks.

The Dollar Chain

Contributions from July 28th to August 4th:

"Nellie," \$5; Mrs. M. E. B., Lindsay, Ont., \$1; William Edward, Brigden, Ont., \$10; "Toronto," \$5.

Amount previously contributed, \$2,648.70

Total to August 4th, \$2,669.70

Our Serial Story

The Road of Living Men.

BY WILL LEVINGTON COMFORT.
Author of "Down Among Men," "Fate Knocks at the Door," "Red Fleece," "Routledge Rides Alone," "Midstream," "Child and Country," etc.

Serial Rights Reserved.

III.
8

My first idea of drawing the cot by his, was to be there if Huntoon suddenly felt an impulse to speak. I was well aware that once normal, I could not take it upon myself to organize his conduct. No matter what my obligation to Romany, which was warming and augmenting momentarily—Huntoon was a friend—until he proved a spy.

All next day he remained dry and brooded—and the next. In these two days, there was no fighting at the Headland nor change in the valley. The old Master did not leave his cot. I told him of the Yarbins in Libertad. He said he would remember them, if the trail opened again. I wrote a long letter to Mary Romany, inclosed in two envelopes, and gave these to her father; also I met Maconachie, the mining engineer; Wesley the gambler, Dole the sutler, miners, smiths, artisans; and explored the valley full-length—even to the wrathful mouth of the impassible gorge.

Maconachie, who was next to Romany on the river, although nominally the consulting head of the wet placer, was alarmingly angular. He did not seem to have a laugh in him. He was dry and narrow and young, without "give" anywhere. He could fold, but not bend. His chest did not move when he breathed. It was tight as a snuff-box and not much larger. I wondered where he kept that excellent baritone. I have found few men more absorbing in their own work.

It was Maconachie who explained the river operations, pointing out the dredge-machinery, installed upon a flat-bottomed boat, which carried the appliances for gold extraction as well. I knew something about dry placers, but this deep-stream work was altogether new. The river bottom was sand and gravel, so there was no crushing. The gold-bearing river-bed was emptied by the dredge into a system of sluices, where the coarse gravel was caught by a grating, and the gold deposit was "riffled" with mercury. Thus was combined the process of extraction by washing and by amalgamation.

It was Maconachie who showed me the Deep Hole in the Calderon. Straight down from the Vactian, the river-bed sank away into an abyss. The mining engineer privately held to the opinion that the river was strengthened at this point either by strong-flowing springs or by a subterranean tributary. With

vents.

was executed

Baltimore for August 1st.

on England wing, it is re- the British of a n that puts of order.

d as safe and Everywhere war goes well sians are now el.

Roumania has

Chain

uly 28th to

C. B., Lindsay, ard, Brigden, 5.

uted. \$2,648.70

\$2,669.70

Story

ng Men.

OMFORT. "Fate Knocks "Routledge "Child

ed.

g the cot by on suddenly I was well I could not organize his my obligation ning and aug- Huntoon was a y.

ed dry and In these two at the Head- valley. The his cot. I bertad. He them, if the rote a long inclosed in these to her onachie, the the gambler, the, artisans; full-length- n of the im-

t to Romany aminally the placer, was d not seem He was dry hout "give", but not ove when he a snuff-box wondered nt baritone. absorbing in

explained the the dredge- at-bottomed planes for w something deep-stream The river el, so there earing river- edge into a the coarse ng, and the th mercury. process of y amalgam-

showed me a. Straight e river-bed The mining the opinion ned at this ing springs ary. With

the old Master laid up, there was no one to show me the Vactican—that mysterious arsenal and gold-treasury; nor did I encounter the machine-guns so pleasantly referred to on our first walk abroad.

On the third morning after the fight at the Headland (the beginging of my fifth day in the valley), I was aroused by Romany's voice raised in altercation with Jason, the surgeon. The old Master was preparing for a ride to the Headland. Jason said it would mean a rise in temperature, and the poisoning of the wound—perhaps the Chief's death.

"You're a good boy, and it warms me to see your interest," Romany said with a laugh. "But it happens to-day that I must go."

It was very early. I was somewhat surprised when the Chief asked if Huntoon and I cared to join him. I remember the gray hardness of his face as we helped him into the saddle; how his eyes turned upward from weakness and the torture of the unhealed wound. Huntoon was gravely absorbed, and I could hardly speak. A mile beyond the Pass, Romany fainted, but recovered as we began to let him down from the saddle.

"The little bone-setter was right," he muttered. "I belong under cover for a few days. I suppose they know what to do at the Headland. Leek went over at daylight. Tom,"—it was the first time—"you see me back to the valley."

I had hardly thought of Huntoon. Turning after we had been a moment on the trail, I saw him standing by his mule's head where the halt had been made. . . . The Chief needed but little help on the ride back; and further amazed me, by sitting at his desk and writing an extended message to Colonel Viringhy, before resigning himself to Jason. I was to take the message back to the Headland.

Huntoon had not waited for me. Half-way between the Pass and the Headland, I overtook his mule. The first fear was that Orion's sharpshooters had picked off my friend, but no shots had been reported at the Pass. Ill with dread, I wondered if there was a way of communicating across the precipice? . . . If Orion were informed how low on ammunition was the force at the Headland, and the Tropicania outfit generally, there could be no doubt of the issue.

I did not give up hope entirely. Huntoon might have been decently hit. Even that were better in my mind than the betrayal. . . . Yet did not being square with Romany mean a betrayal of Orion? It is true, Huntoon had not heard the confession from the Chief's lips, that there was no more than five rounds left to the whole command; but he had a keener military eye than any, and could guess the situation. Again and again this thought: If he should tell Orion of Romany's shortage, the Headland would change hands, perhaps this day, and Tropicania would be cut off from the possible ammunition-steamer.

Questions and possibilities maddened me, and the steady pound of the truth that I brought Huntoon, that I had vouched for him. . . . In spite of the miserable stress, there appeared no good in reporting Huntoon's disaffection to Viringhy when delivering the message. I started back in the early afternoon, having made up my mind not to tell the old Master unless he inquired directly. Of course, at the Headland they believed Huntoon back at the placer; and it proved, when I reached there, that he was supposed to have remained at the se- end. Romany, at least, did not ask. That was a black night for me, and when I heard the Chief's call in the early morning, I thought the time had come for my miserable stewardship to be known. Instead he said wearily:

"Tom, it's going to be a noisy day at the Headland. I should be there, but I can't. There'll be fighting. I'll keep Leek here for emergencies. Jason must go on. You are to help Viringhy hold the Headland—until further orders. Here's another dispatch. . . . It's the last fight there."

"Then there'll be a ship?" I whispered with effort. "Yes," and the pale shadow of a smile wavered over the gray face. "You'll be back here to-night—with good news, I trust—take care of yourself—" I wanted to run from him. Huntoon had done well—if he were working against us. This was the day of all,

USEFUL PRESERVING HINTS

Here's the Way to Succeed in Jam or Jelly Making.

10—Use ripe—but not over-ripe fruit.

20—Buy St. Lawrence Red Diamond Extra Granulated Sugar. It is guaranteed pure Sugar Cane Sugar, and free from foreign substances which might prevent jellies from setting and later on cause preserves to ferment.

30—Cook well.

40—Clean, and then by boiling at least 10 minutes, sterilize your jars perfectly before pouring in the preserves or jelly.

Success will surely follow the use of all these hints.

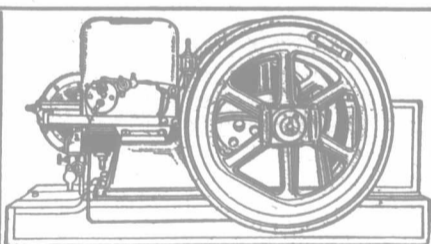
We advise purchasing the Red Diamond Extra Granulated in the 100 lb. bags which as a rule is the most economical way and assures absolutely correct weight.



Dealers can supply the Red Diamond in either fine, medium, or coarse grain, at your choice.

Many other handy refinery sealed packages to choose from.

St. Lawrence Sugar Refineries, Limited, Montreal.



The Farmer's Most Versatile Servant

This wonderful Page Engine for \$42.50

Connect it with your Cream Separator by a Governor Pulley. Hitch it by belt to your wife's washing machine. Use it to pump water, to churn. All this work and a lot more it does more cheaply than you could hire a man to do it.

For heavier work there are these larger and equally satisfactory Page Engines.

Table with 2 columns: Engine size and Price. 1 1/2 h.p. \$49.00, 3 h.p. 85.00, 5 h.p. 140.00, 7 h.p. (Kerosene Oil Engine) 174.00

Write for particulars.

The Page Wire Fence Co., Ltd 1139 King Street West, Toronto

ADMINISTRATORS' AUCTION SALE

Farm of James Robinson, Etobicoke Township, West of Albion Road, containing 100 acres more or less. Excellent soil. Brick house and barns. Within 1/2 mile of radial cars. Sale will be held at three o'clock, August 19th, at Smithfield, Etobicoke Township, J. R. McKeown, Auctioneer. For particulars, apply

John Cameron, Etobicoke P.O., Ont.

for Orion to take the Headland. And I was to come back with good news. . . . The ride through the Canyon was painfully slow that morning. Jason and I led a mule each, packing the last dole of ammunition for Viringhy's fighters. It was pitiful to me—a half-dozen boxes of cartridges. A reinforcement of miners marched behind us. What a volley we drew on the Causeway as our little party rowelled across. . . . The ship was in the offing and fighting was on.

This day's attack was identical with the other in its early features; little charges one after another repulsed up to noon and beyond. I could not help feeling that Orion was toying with us, preparing for a grand upward dash to the Causeway. Huntoon was related in my mind to every movement of that morning. Out-and-out reason told me the remittance-man must be dead, or earning his wages from Orion as he set out to do; but something deeper than brain, whispered that he loved the weaker cause; that he liked me; and was fascinated by the gameness of Romany, hard-hit.

At two o'clock in the afternoon, the steamer turned in from the offing.

This was the move that Orion had waited for. I saw his force marshalling in the thickly wooded ways across and below—glimpses of line after line of heretofore unused native soldiery—a big fatuous reserve. Clearly he had held himself and his force for this strike. I watched from the hooded rock from which the paper cannons had belched so regularly four days before.

It was not laughable to me—these serious preparations. I was to bring good news back to the valley this night—and so far as I knew Orion was energized for this last charge by the word of my friend. Even the Pass could not be held long. Without ammunition, if we lost the Headland, miners and soldiers would shortly be at the mercy of Orion's force in the Cul-de-sac. I thought of three

Advertisement for STEEL TRUSS BARN by The Metal Shingle & Siding Co., Ltd. Includes text: "If you have a STEEL TRUSS BARN you won't be afraid of LIGHTNING. It is fire-proof, durable and roomy. ASK FOR CATALOGUE. The Metal Shingle & Siding Co., Ltd. Preston, Ont. Montreal, Que."



FARM FOR SALE — FIRST CLASS DAIRY farm of 200 acres, ten miles from London. Apply Box "N" Farmer's Advocate, London, Ont.

WANTED—EXPERIENCED MILKER AND farm hand, also man for bottling milk. Thirty-five dollars and board per month. Write Erindale Farms, Limited, Erindale, Ont. (12 miles from Toronto).

110-ACRE FARM FOR SALE, NEAR R.R. Buildings on Rural Route; mostly woven wire fences. No encumbrance. Price \$4,400 Mrs. C. R. McCall, Vittoria P.O., Ont.

YOUNG MAN WANTED — HONEST, willing, active and of good habits to work on farm by the year. Must be reliable and used to farm work. Can begin any time during the next month. We have first-class buildings, equipment and live-stock; have pretty nearly everything in farm machinery to make work easy. No water to pump. Home heated with hot water in winter. No wood to chop. Winter work tending to stock inside. Write, stating wages expected, to R. H. Reid, Reid's Corners, Kincardine Ont.

PATENTS AND LEGAL. FETHERSTONHAUGH & CO., PATENTS Solicitors—The Old Established Firm, Head Office Royal Bank Building, Toronto, and 5 Elgin St., Ottawa, and other principal cities.



New Prices August 1st, 1916

The following prices for Ford cars will be effective on and after August 1st, 1916:

Chassis	\$450 ⁰⁰
Runabout	475 ⁰⁰
Touring Car	495 ⁰⁰
Coupelet	695 ⁰⁰
Town Car	780 ⁰⁰
Sedan	890 ⁰⁰

f. o. b. Ford, Ontario

These prices are positively guaranteed against any reduction before August 1st, 1917, but there is no guarantee against an advance in price at any time.

Ford Motor Company of Canada
 Limited
 Ford, Ontario

hundred men crowded in the Vatican. . . . Orion must have been moving seven or eight hundred. Again and again his boats had crossed the river and landed behind the notch of the arrowhead. Another big line was organized on the cliffs opposite. Skirmishers broke out from cover of the rocks and started up the slopes.

Viringhy answered the move. His men swarmed along the Causeway, imperfectly sheltered from the cross-fire, to break the point of the charges from below. Now, with this neck of land threatened, the bulk of the force on the Headland withdrew toward the Causeway, so as not to be cut off from retreat to the Pass at the last moment. This left the sea-point practically unguarded. I saw an altogether new zeal on the part of the enemy, a determination not shown in any movement before. This meant Huntoon to me.

And now the last terrible strain upon the ammunition boxes. There was no holding back. The numbers had to be met by hard steady fire.

Again and again the point was broken, but reformed; each time higher up the cliffs the charges reached; and each time certain of the most daring found places of refuge in the rocks, out of range of our fire. They were ready to form the point of the final charge.

For a half-hour this action held on terrifically. I was appalled at the courage of Orion's natives, notorious the world over for cowardice. What would real men do when this mocking illusion called battle spirit, made an intrepid offence like this from such poor soldier stuff?

There was a yell from behind—from the pitiable remnant of a guard at the seaward end of the Headland. I ran back. Orion had a half-dozen small

boats at sea, cutting us off from the steamer, which was now but a third of a mile from shore. A small column had been landed at the Headland base, prepared to make a charge up that steep trail.

I faced it that moment—Failure. They were too many. In another ten minutes our rifles would be useless save as clubs. . . . The ship crept nearer. The thought of Huntoon was poison to me. The cliffs up to the Causeway were filling with men from the charges. They could not reach Viringhy's defenders with their fire, but many of the enemy were equally out of our range.

And now Viringhy realized the crisis. He could not hold his soldiers at the point of the Headland. The defensive force on the Causeway was crumbling.

I did not blame the men. I had already accepted loss—not only of the battle, but of Tropicania. The ascent

of the seaward cliffs by Orion's force was practically unmet—and his small boats stood between us and the ship's cargo.

I saw Orion settle back on the slopes for the final effort—a concerted charge on the Headland and the Causeway. Viringhy's command was out of hand. The whole force was set to race across the neck. . . . A last red-hot bit of action—a seething of bullets at close range; the enemy swarming among the rocks. . . . And now I have a confused picture of writhing, wounded, pitiful figures of bare-footed men, hard-hit and limply detached from the rocks to roll down the slopes. Here was the ghastliness of a close-range fight. . . . A yell from the valley-trail drew my eyes. Leek was coming at a gallop, and behind him on foot—Huntoon, spent and staggering.

To be continued.

AUGUST 1
 HORSE
 THE LAWRENCE

St
 Good
 Pump
 test yo
 Our act
 tion
 WATER
 fied us
 gasolin
 ent tha
 We o
 sizes an
 that de
 The
 about it
 for it.
 National
 Compa
 33 Waba
 Agents V
 represen

They run

B
 Sp
 No matte
 how lame
 have tried
 Spavi
 Use it und
 funded if it
 Most cases
 cation—occ
 Spavin, fir
 cases alike
 and a free
 F
 Ninety-six
 illustrated
 inary subje
 treat any k
 FLEM
 75 Church

LAN
 For over 20 Yes
 Bond to retu
 REMEDY fail
 or ANY Shoul
 Disease.
 Our FREE 90
 mind settler on
 This BOOK.
 --ALL FREE (t
 Address: TRO
 Horn St., TOR
 Druggists Eve
 with CONTR.

Easy Ba
 Leverage
 the work, qui
 running, low
 Free New
 eco
 Write for copy
 Admiral Hay Pres
 Box F Kansas C

HORSE OWNERS! USE

GOMBAULT'S CAUSTIC BALSAM.

A safe, speedy and positive cure. The safest, Best BLISTER ever used. Removes all blemishes from Horses. Impossible to produce scar or blemish. Send for circulars. Special advice free.

THE LAWRENCE-WILLIAMS CO., Toronto, Canada

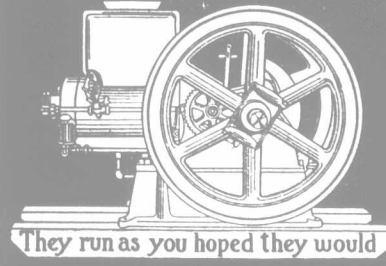
Stover's Good Engines

Pumping is about the hardest test you can put an engine to. Our actual experience in connection with our PEERLESS WATER SYSTEMS has satisfied us there isn't a better gasoline engine on the Continent than the "STOVER".

We offer the "STOVER" in all sizes and for any purpose at prices that defy comparison.

The Booklet tells all about it. Write to-day for it.

National Equipment Company, Limited
33 Wabash Ave., Tor.
Agents Wanted for Unrepresented Territory.



They run as you hoped they would

Bone Spavin

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use

Fleming's

Spavin and Ringbone Paste

Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single 45-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Write for detailed information and a free copy of

Fleming's Vest-Pocket

Veterinary Adviser

Ninety-six pages, durably bound, indexed and illustrated. Covers over one hundred veterinary subjects. Read this book before you treat any kind of lameness in horses.

FLEMING BROS., Chemists
75 Church Street Toronto, Ont.

LAMENESS

For over 20 Years we've given a Signed Contract Bond to return money if Save-The-Horse REMEDY fails on Ringbone-Thoropin-SPAVIN or ANY Shoulder, Knee, Ankle, Hoof or Tendon Disease.

Our FREE 96-page Save-The-Horse BOOK is a mind settler on 58 forms of LAMENESS.

This BOOK, Sample Contract and ADVICE—ALL FREE to Horse Owners and Managers.

Address: TROY CHEMICAL CO., 145 Van Horn St., TORONTO, ONT.

Druggists Everywhere Sell Save-The-Horse with CONTRACT or we send by Parcel Post.

Easy Baling Admiral Motor Press

Leverage does the work, quick, smooth running, low up-keep cost.

Free New catalog and economy records. Write for copy today.

Admiral Hay Press Co.
Box 17 Kansas City, Mo.

Pays for Itself in 7 days

WRITE FOR OUR SPECIAL OFFER

This latest model Hand Mixer produces a better mix with less cement, saving you time, labor and money.

Wettlaufer Bros., Ltd.
178 A Spadina Ave., Toronto

Questions and Answers.

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

Miscellaneous.

Hired Help Problem.

I engaged a young man to work for four months, from May to September for \$130. He is trying to leave me now at the end of this month and wants to be paid at the rate of \$32.50 a month. I hired him for four months and consider the harvest months worth more than the months of May and June. Do I need to pay him unless he puts in all his time? He is a High School student and got out of school before the end of his term and allowed his promotion on conditions that he work on the farm.

2. Is it necessary for him to have his certificate signed by the farmer that he has worked three months on the farm? I am willing to sign it if he puts in his time as he agreed to. His object in leaving is that he can get bigger pay elsewhere. What per cent. of his wages would be fair to give him for the time he has put in? A. L.

Ans.—1. Upon your statement of the facts, the young man is not legally entitled to anything, unless he fills out the full time for which he was hired. If he quits before the expiration of the four months, without your consent, he cannot legally claim anything for the time that he has put in. It quite often happens, however, that, in such a case, where the hired man sues for his wages, the Court may allow him a reasonable amount for the work that he has actually done. If he leaves, with your consent what you may pay him is simply a matter for agreement, and it is impossible for anyone, without a full knowledge of all the circumstances, to say what would be fair to pay him for the work that he has done.

2. We would think that in order to get his promotion, it would be necessary for him to present, to the High School Principal, a certificate that he had worked upon the farm, but unless you agreed, at the outset, to give him such certificate, you are under no obligation to do so.

Suits Free.

Remarkable Cloth that Won't Wear Out!

Now readers, would you like a suit or pair of pants absolutely free! A most astounding offer is being made by a well-known English firm! They have discovered a remarkable Holeproof Cloth. You can't tear it! Yet it looks just the same as \$20 suiting. You can't wear it out no matter how hard you wear it, for if during six months of solid, hard grinding work every day of the week (not just Sundays), you wear the smallest hole, another garment will be given free! The firm will send a written guarantee in every parcel. Think readers just \$6.50 for a man's suit, and only \$2.25 for a pair of pants sent to you all charges and postage paid and guaranteed for six months' solid, grinding wear. Now, don't think because you are miles away you cannot test these remarkable cloths, for you simply send a 2-cent post card to The Holeproof Clothing Co., 56 Theobalds Road, London, W. C., Eng., for large range of patterns, easy self-measure chart and fashions. These are absolutely free, and post paid. Send 2-cent post card at once! Mention "The Advocate."—Advt.

Delightfully Cool on the Great Lakes.

Port McNicoll, a few hours pleasant journey via Canadian Pacific Railway, is the Gateway to the Great Lakes. Steamship Express leaves Toronto 2.30 p. m. each Tuesday, Thursday and Saturday making direct connection at Port McNicoll with either Steamship "Keewatin" or "Assiniboia" for Sault Ste Marie, Port Arthur, and Fort William. Particulars from any Canadian Pacific Ticket Agent or W. B. Howard, District Passenger Agent, Toronto.

Leaders Since 1870

DOMINION PIANOS

Encore!

THINK of the delight of hearing your little girl playing the old familiar tunes on a perfect piano of full rich sonorous tone.

The new Dominion Catalogue will give you a mental picture of the instruments which have brought melody into thousands of homes during the past 46 years. It will tell you what these piano owners think of DOMINION PIANOS after years of use. Don't put it off and forget. A Post Card will do. You'll get the Catalogue by return mail—It's FREE.

Dominion Piano Company
Bowmanville - Ontario

61-B

Increases Milk Production!



If scarcity of labor prevents increasing your herd, remember this: A Sharples Milker enables one man to milk 30 cows per hour—one-third the time required for hand milking. The

SHARPLES MILKER

means sanitary milk—runs from teats through rubber tubes to sealed buckets. The Patented "Upward Squeeze" guarantees healthy teats.

Tends to increase milk production. Now successfully used on over 300,000 cows. Write for free booklet: "Dairying for Dollars Without Drudgery."

We also make a splendid line of Gasoline Engines—2 1/2 to 9 horse power.

The Sharples Separator Co. - Toronto, Canada

A Clean Skim

Every dairyman knows that slackened operating speed, when using any old-style separator, means cream loss. There's only one separator, the

SHARPLES SUCTION-FEED CREAM SEPARATOR

that gets all the cream at any speed. Saves 7 to 13 lbs. of butter per cow per year over other separators—no discs. Write for free book: "Velvet" for Dairy-men. Address Dept. 78.

Clydesdales

We have still left some exceptionally good draft stallions, ranging in age from one to eight years, prizewinners, including champions; also in-foal mares and fillies. There is a horse boom coming. Buy now.

SMITH & RICHARDSON, Columbus, Ont.

ORCHARD GROVE HEREFORDS

Have several young bulls and heifers for sale. Satisfaction guaranteed.

L. O. Clifford Oshawa, Ontario

WOODLANDS BROWN SWISS AND PONIES

We have no Clydes. left for sale. Our special offering is Brown Swiss bulls, out of high-testing and big-producing dams. Strictly high-class. Also Shetland and Welsh ponies.

R. BALLAGH & SON GUELPH, ONTARIO

Woodholme Shorthorns

For Sale—a number of yearling and two-year-old heifers, the two-year-olds are bred a short time, and a number of good farmer's bulls of the right kind and breeding. Write your wants.

G. M. FORSYTH, Claremont, Ontario

Riverside Holsteins

Herd headed by "King Johanna Pontiac Korudyke," a brother of Pontiac Lady Korudyke, 38.02 lbs. butter in 7 days, 156.92 in 30 days—world's record when made. His 10 near relatives have official records that average 34.94 lbs. butter in 7 days. His daughters have made good in official test. The present R. of P. cow of Canada was bred here. Choice young bulls for sale.

J. W. RICHARDSON, R. R. No. 2, Caledonia, Ont.

CANADA'S OLDEST JERSEY HERD

Has for sale several exceptionally choice young bulls of serviceable age, bred on both sides with official and high producing blood. Also yearling heifers and heifer calves.

D. DUNCAN & SON, Todmorden, R.M.D. Duncan Sta., C.N.O.

City View Ayrshires

Improve your milk test. Four yearling bulls, fit for service, sired by bulls from R.O.P. dams and from R.O.P. cows. Average test for the year 4.15, 4.21, 4.64 and 4.7 per cent fat. Prices reasonable. Cash or credit on bankable paper. Eggs for setting, R.-C. and S.-C. Rhode Island Red. Winners wherever shown.

JAMES BEGG & SON, R.R. 1, St. Thomas, Ont.

Oakland--48 Shorthorns

Present offering is one choice red bull, 20 months old, price \$175; also three about seven months old. A few cows with calves at foot and bred again, and some fine heifers bred. All registered and priced to live and let live.

JNO. ELDER & SONS, HENSALL, ONT.

Holstein Bulls for Sale

Only 3 left nine to eleven months old. Priced right for quick sale. Send for particulars:

HAMILTON FARMS, STAMFORD P.O., ONTARIO

Certain-teed Roofing



If you want real service from the roofing you lay on your farm buildings, buy "CERTAIN-TEED", and look for this guarantee on every roll. CERTAIN-TEED is guaranteed to last 5, 10 or 15 years, according to ply (1, 2 or 3). Experience has proven that it outlasts its guarantee. It is very different from inferior roofing sold by mail. It is safer than wood shingles; looks better than galvanized iron or tin; is easier to lay and cheaper. Get CERTAIN-TEED from your local dealer, whom you know and can rely upon. It will save you money in the end. It is sold by good dealers all over Canada at reasonable prices.

General Roofing Mfg. Co.
World's Largest Manufacturers of Roofing and Building Papers.

Distributing centers: Toronto, Montreal, Ottawa, Winnipeg, St. John's, N. F., Halifax, Regina, Brandon, Calgary, Vancouver.

A Gold Mine On Your Farm

You can double your profits by storing up good green feed in a

BISSELL SILO

"Summer Feed all Winter Long"



Scientifically built to keep silage fresh, sweet and good to the last. Built of selected timber treated with wood preservatives that prevent decay.

The BISSELL SILO has strong, rigid walls, air-tight doors, hoops of heavy steel. Sold by dealers or address us direct. Get free folder. Write Dept. W.

T. E. Bissell Co., Ltd.
Elora, Ontario

Do not fail to see our exhibits at Toronto, London and Ottawa

ALLOWAY LODGE STOCK FARM Angus, Southdowns, Collies

Special this month

Southdown Prize Rams

ROBT. McEWEN, R.R.4, London, Ont.

Balmedie Aberdeen-Angus—Get a high-class Angus bull and breed the champion steers. I have show-ring quality bulls from 10 to 24 months of age; also choice 1- and 2-year-old heifers.

T. B. BROADFOOT, Fergus, Ont.

Aberdeen-Angus Cattle. Several choice imported sires "Pradamere" for sale. Apply A. DINSMORE, Manager, "Grape Grange" Farm, Clarksburg, Ont. 1 1/2 miles from Thornbury, G.T.R.

Glenfoyle Shorthorns

Large selection in females all ages, bred from the best dual-purpose families. One extra choice fifteen-months bull, some younger ones coming on. Priced well worth the money.

Stewart M. Graham, Lindsay, Ont.

1854 Maple Lodge Stock Farm 1916 SHORTHORNS AND LEICESTERS

We have now for sale one 2-shear Leicester ram, three shearlings, and 14 ram lambs. Also a few young ewes and ewe lambs. All these are of excellent quality and choice breeding, and will be priced moderately. Come and see our flock.

Miss Charlotte Smith Claudeboye, R. R. 1 Lucan Crossing one mile east of farm.

SHORTHORNS
Bulls, females, reds, roans, size, quality. Breeding milkers over 40 years. Cows milking 50 lbs. a day. Big, fleshy cows that will nurse calves right. Prices easy, write:
THOS. GRAHAM, R. R. 3, Port Perry, Ont.

FLETCHER'S SHORTHORNS
3 choice bulls of serviceable age; also females, all of good Scotch breeding, for sale. Write before buying.
Geo. D. Fletcher R. R. 1, Erin, Ont.
L.-D. Phone, Erin ta. C.P.R.

Mention this Paper

English Farmers' Help for France.

After the Franco-Prussian War of 1870-1 the farmers of England, under the leadership of the Royal Agricultural Society, established a fund for providing seed corn for the French peasants in the invaded areas, in order that they might provide crops for themselves. The fund then raised reached about £52,000 which was distributed through the medium of the French local authorities and afforded extremely valuable assistance of a character and at a time when it was urgently needed. To-day, the English farmer is again exerting his generous instincts towards the French small farmer, and once more the Royal Agricultural Society has established a fund, this time for the assistance of Belgian, Serbian, and Polish peasants, as well as for those of the stricken regions of France.

The Royal Agricultural Society inaugurated its fund a little over twelve months ago, and in addition to having raised £85,000 in cash, it has distributed stock, seeds and implements to the deserving farmers of France to a value of many thousands of pounds.

The invaded districts, or such of them as have been recovered from the clutch of the enemy since the battle of the Marne, have been visited from time to time by prominent members of the committee which administers the fund. Among them have been Lord Northbrook (the Chairman of the Executive Committee), Mr. Adeane (the Honorary Treasurer), Anderson Graham, Percy Hurd, S. Kidner, together with representatives of agricultural interests throughout England. These visits have been made with the object of obtaining practical information on the spot as to the more urgent requirements of a stricken community, and it is in accordance with their recommendations that the consignments of such material help as has already been given was made.

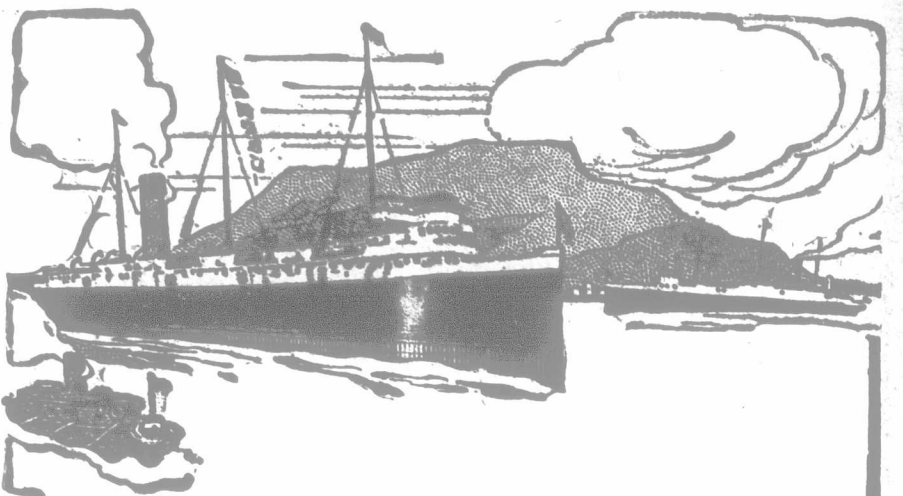
All who have had the privilege of visiting the devastated districts of France have been impressed, first of all, with the dominant quality of determined industry in the face of disaster shown by the peasants. The spirit of patient energy appeals forcibly to practical English notions, and farmers in Great Britain have come forward with willing help to restore and re-establish such a deserving people to a condition in which it shall be possible for them to earn a living by their own exertions when charitable relief is so odious to the spirit which animates them.

In England it is recognized that but for the British navy and for the hindrance which the French and Belgian peasants offered to the advance of the Germans nearly two years ago, the sacrifices which they then made might have been inflicted also upon English farmers too. Moreover, it is realized that the struggle for the deliverance of Europe and for the continuance of the British Empire is taking place not upon British farm lands but upon those of the brave Allies of Britain. That fact emphasizes the moral obligations upon the British farmer to help his Allied brethren.

The fund formed by the Royal Agricultural Society of England is under the patronage of His Majesty the King. The Duke of Portland accepted the presidency of the movement, which is now known as the Agricultural Relief of Allies Fund (16, Bedford Square, London, England), and an executive committee was formed representative of every branch of farming activity in the country with Lord Northbrook at its head as Chairman. That committee at once got to work, and between July and December of last year the committee distributed in implements alone: 15 drills, 20 binders, 6 threshing machines, 40 harrows, 50 ploughs, and 20 Canadian cultivators. Shipments of live stock have been made from time to time. King George set an example by giving a pen of five rams, and many other breeders contributed freely, so that over 60 were sent out and placed on the farms.

There have also been sent: 11 boars, some goats, and 3,000 head of poultry, ducks, rabbits, etc., which have proved of special assistance to the peasants. In March there were shipments of 2,000 sacks of seed oats, and 800 sacks of seed potatoes.

When the Allied armies begin to clear



A FIVE DAY HOLIDAY on the GREAT LAKES

And you will feel good, because among the islands of Georgian Bay, the green banks of the St. Mary's River and the expanse of Lake Superior, fresh, cool breezes will blow new life into you. The

CANADIAN PACIFIC

Clyde-built Greyhounds, with their Verandah Cafe, perfect appointments and cuisine, are as good as Atlantic Liners. Express Steamships "Assiniboia" and "Keewatin" leave Port McNicoll every Tuesday, Thursday and Saturday for Port Arthur and Fort William. Round trip 5 days.



Tickets, information and reservations from Local Agent, or W. B. Howard, District Passenger Agent, Toronto, Ont.

Escana Farm Shorthorns

FOR SALE: Two imported bulls, proven valuable sires; 12 bulls, 10 to 20 months old, all by imp. sires and from high-class dams; also for sale, 20 heifers and young cows, several with calves at foot, all of very choicest breeding, and especially suitable for foundation purposes.

Mail orders a specialty. Satisfaction guaranteed. **MITCHELL BROS.** Burlington P.O., Ont. Jos. McCrudden, Manager. Farm 1/2 mile from Burlington Jct.

Robert Miller Still Pays the Freight—And he is offering in Shorthorns some of the best young bulls and heifers that can be produced. Young bulls fit for service, Scotch families, and some of them from great milking families. They are in good condition and made right, just what you want to make a proper foundation for a good herd, and suitable to improve any herd in the land. They will be priced so that you can afford to buy, if you will tell me what you want. Our business has been established 79 years, and still it grows. There is a reason. **ROBERT MILLER, Stouffville, Ontario**

Shorthorns and Shropshires—T. L. MERCER, MARKDALE, ONTARIO—With 125 head to select from, we can supply young cows in calf, heifers from calves up, and young bulls from 9 to 18 months of age, richly bred and well fleshed. In Shropshires we have a large number of ram and ewe lambs by a Toronto 1st-prize ram; high-class lot.

Spring Valley Shorthorns Herd headed by the two great breeding bulls, Newton Ringleader (imp.) 73783, and Nonpareil Ramsden 83422. Can supply a few of either sex. Kyle Bros., Drumbo, Ont. Phone and telegraph via Ayr.

GLENGOW SHORTHORNS AND COTSWOLDS
Pure Scotch in breeding, we have an exceptionally choice lot of bulls for this season's trade, ranging in age from 8 to 15 months, big mellow fellows and bred in the purple. Also ram and ewe lambs of first quality. Wm. Smith & Son, Columbus, Ont. Myrtle, C.P.R., Brooklin, G.T.R., Oshawa, C.N.R.

Four Imported Bulls The above bulls are choicely bred, of good quality, and should make valuable sires. We have five Canadian bred bulls from 10 to 18 months old. We invite inspection of our stock and will give correspondence our most careful attention. J.A. & H.M. Pettit, Phone Burlington, Freeman, Ont. Burlington Jct., G.T.R., half mile from farm

Females-SHORTHORNS-Females
I can supply females of the most popular Scotch families, Crimson Flowers, Minas, Lady Fannys, Nonpareils, Butterflies, Amines, Athas, Miss Ramsdens, Marr Emmas, Marr Missies and Clarets. A few bulls A. J. HOWDEN, COLUMBUS, ONT. Myrtle, C. P. R. and G. T. R.; Oshawa, C. N. R.

Spruce Glen Shorthorns When in want of Shorthorns visit our herd. We have 70 head to select from. Minas, Fames, Miss Ramsdens, breeding age—level, thick, mellow. Also several young bulls of fellows and bred just right. **James McPherson & Sons, Dundalk, Ont.**

Canada's Grand Champion Shorthorns of 1914-1915
are headed by the great "Gainford Marquis" Imp. Write your wants. J. A. WATT, ELORA, ONT., G.T.R. & C.P.R.

Maple Shade Farm Shorthorns—The products of this herd have been in very strong demand. There's a reason. Can always supply a good young bull at a price which will make him well worth the money. Not many females for sale, but can show a few which should interest you. Brooklin, G.T.R., C.N.R.; Myrtle, C.P.R. W. A. DRYDEN, Maple Shade Farm, Brooklin, Ont.

Pleasant Valley Shorthorns Special Offering, Sittyton Favorite one of the best individuals and stock bulls we know of. Also young bulls and females bred to (imp.) Loyal Scot and Sittyton Favorite. Write your wants. We can suit you in merit, breeding and price. **GEO. AMOS & SONS, Moffat, Ont.** Moffat, 11 miles east of Guelph, C.P.R.

Maxwell HOME WASHER

—A high speed ball bearing washer that is light, noiseless and easy running; enclosed gears making it safe in operation.

The construction of the dasher makes this type the best for the thorough washing of everything.

It can be operated by hand power or water motor.

It is made in Canada of best quality cypress, and is superior in design, construction and finish to any imported washers.

Insist on seeing this Maxwell "Home" Washer at your Dealer's, or write to us.

MAXWELLS LTD. St. Mary's, Ont. Dept. A



the enemy out of the regions in France, Belgium, Serbia, and Poland (which are now under his cruel yoke) the committee will be confronted with an immense task. But it is relying upon the co-operation of British farmers and is confident of its achievement. Its object is to restore, as far as may be, the agricultural industry in all the districts which have suffered so terribly by the invasion of a brutal and ruthless enemy.

Tobacco Diseases in Canada

EDITOR "THE FARMER'S ADVOCATE":

The two most common and serious diseases of the tobacco plant are "Root Rot" and tobacco Mosaic, the latter better known as "Calico."

Tobacco "Root Rot" is caused by the fungus *Thielavia Basicola* (Zopf.). This disease is characterized by the root system of the plants infected, presenting a dark brown or blackish appearance, and the roots are very friable and easily broken. The plants are often infected in the plant beds. This is quite often the case where the same beds have been in use for several years, and where no precautionary measures of sterilization, either by steaming, burning or treatment with soil disinfectants, such as formalin, etc., are taken. Plants also become infected in the field, especially if tobacco has been grown for a number of years in succession. The diseased plants in the field make little or no growth, present a yellowish appearance, and when pulled up the roots show the blackish or rotted appearance. The plants sometimes die out entirely, but more often remain throughout the season on the field practically no larger than when transplanted.

This disease has been quite prevalent for the past few years throughout the tobacco-growing districts of Canada. It is more common during a wet season, as was distinctly noticed last year, and apparently more destructive on rather heavy clay soils, in which when thoroughly contaminated, the disease may remain for a number of years.

The most effective means of combating or preventing this disease in the plant beds is by sterilization either by steaming, burning or treating the soil with formalin before sowing the seed. The control or checking the disease in the field is a much harder task. On fields that are already diseased about the only thing that can be recommended at present is to widen the rotation by growing other crops, such as corn, cereals and the grasses, namely: timothy, red top, etc. By growing crops like these which the fungus does not attack, the chances are much more favorable for the elimination of the disease from the soil than if grown to tobacco and other crops which are good hosts for the disease.

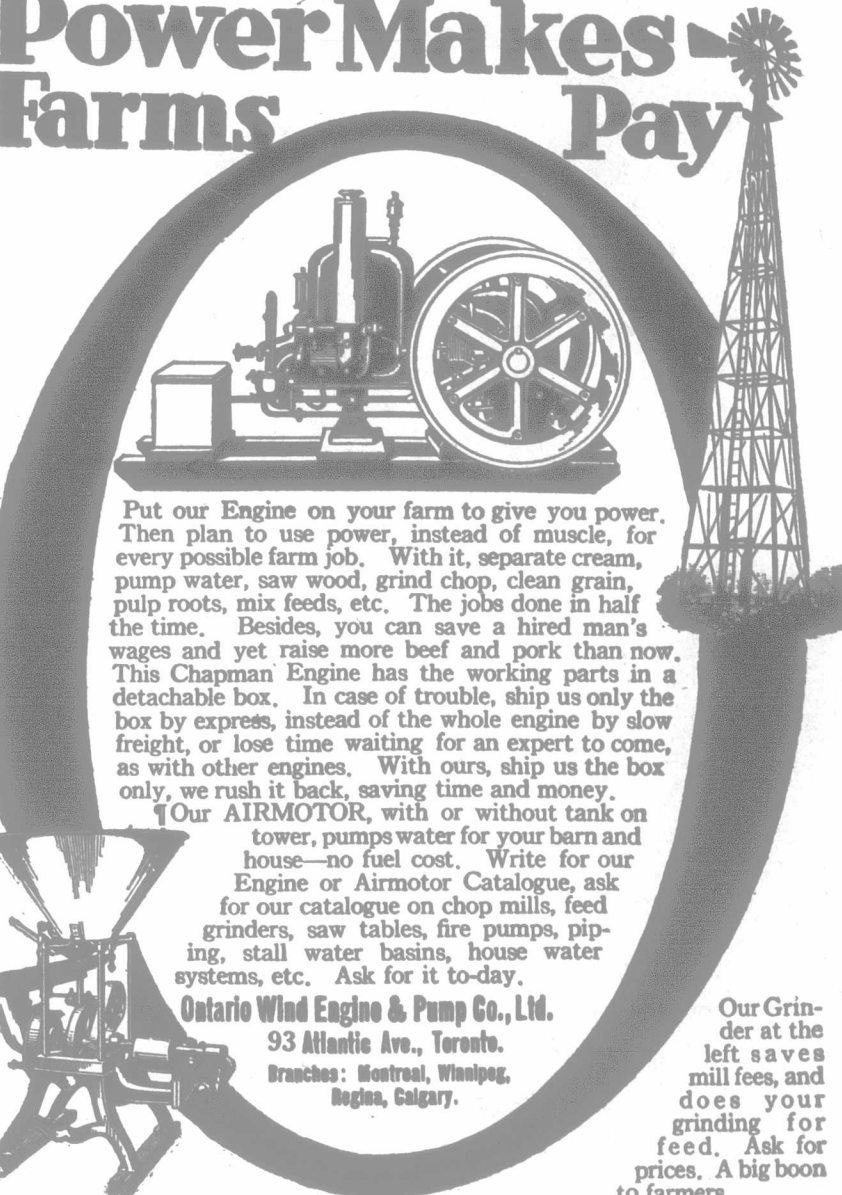
Tobacco Mosaic, also commonly called "Calico" and a number of other names, is easily distinguished in the field, and is common throughout the tobacco sections of Canada. It is classified as a physiological or nonparasitic disease, since no specific organism has been found associated with the disease. All or part of the leaves of diseased plants may show the peculiar mottled or spotted appearance. The leaves in some instances are ill-formed, presenting little more than the midrib. This "shoe-stringed" appearance is a rather common form of the disease.

While the exact cause of the disease has not been determined it is very infectious, and is transmissible in the field from diseased to healthy plants by worming, topping and suckering operations. It is the best policy to pull up and burn all diseased plants as soon as they are noticed in the field, in this way the spread of the disease will be checked.

Tobacco is also attacked by other fungi during moist and unfavorable weather conditions, which cause rusty spots to appear on the leaves, but these are of minor importance.

The Tobacco Division of the Central Experimental Farm has equipped a pathological laboratory for a further study of the diseases of tobacco, and would be glad if any growers who notice diseased plants in their crops would report same or send specimens of diseased plants to the Tobacco Division, Central Experimental Farm, Ottawa, Ont., Canada. G. C. ROUTT, Pathologist, Tobacco Division.

Power Makes Farms Pay



Put our Engine on your farm to give you power. Then plan to use power, instead of muscle, for every possible farm job. With it, separate cream, pump water, saw wood, grind chop, clean grain, pulp roots, mix feeds, etc. The jobs done in half the time. Besides, you can save a hired man's wages and yet raise more beef and pork than now. This Chapman Engine has the working parts in a detachable box. In case of trouble, ship us only the box by express, instead of the whole engine by slow freight, or lose time waiting for an expert to come, as with other engines. With ours, ship us the box only, we rush it back, saving time and money.

Our AIRMOTOR, with or without tank on tower, pumps water for your barn and house—no fuel cost. Write for our Engine or Airmotor Catalogue, ask for our catalogue on chop mills, feed grinders, saw tables, fire pumps, piping, stall water basins, house water systems, etc. Ask for it to-day.

Ontario Wind Engine & Pump Co., Ltd.
93 Atlantic Ave., Toronto.
Branches: Montreal, Winnipeg, Regina, Calgary.

Our Grinder at the left saves mill fees, and does your grinding for feed. Ask for prices. A big boon to farmers.

Harab-Davies Fertilizers

Yield Big Results

Write for Booklet.

THE ONTARIO FERTILIZERS, LTD.
West Toronto

Any Money Invested Now in SASKATCHEWAN LAND

will bring handsome returns at close of war or sooner. Crops never better; self-evident bargains in land offered. We show it free of charge. Buy ticket to Canora, Sask., on C.N.R.

Scandinavian Canadian Land Co.
Canora, Sask.

Evergreen Stock Farm Registered Holsteins

Offers for sale 4 cows from \$100 each up; 3 choice bull calves born in February and March—(more white than black), from tested dams and grade sire Netherland Segis. Only \$35 and \$40 each.

Jacob Scheib, R.R. 3, Rodney, Ont.

3 Holstein Bulls

ready for service. 1 black dam 16.3 lbs. butter 7 days, 63 lbs. milk 1 day. At 2 years her dam 1,007 lbs. butter, and 25,000 lbs. milk in 1 year: 3 bull calves 4 to 6 mos.

R. M. Holtby, Port Perry, Ont.

Lakeside Ayrshires

A few young bulls or sale from Record of Performance dams, imported and Canadian-bred, sired by Auchenbrain Sea Foam (imp.) 35758, grand champion at both Quebec and Sherbrooke. Write for catalogue.

GEO. H. MONTGOMERY, Proprietor
Dominion Express Bldg., Montreal, Que.
D. McArthur, Manager, Phillipsburg, Quebec

Stockwood Ayrshires—Sired by my royally-bred and prizewinning bull, Whitehall King of Hearts, Imp., for sale are in calf heifers and young bulls, out of imp. and big producing cows.

D. M. WATT, St. Louis P.O., Quebec

High-Ayrshires If you are wanting a richly-class bred young bull out of a 50-lb.-a-day and over cow, imp. or Canadian-bred dam or sire, write me. Females all ages. Prices are easy.

D. A. MacFARLANE, Kelso, Quebec

Please mention "The Advocate."

King Segis Pontiac Paul 15940

WE have for sale a few sons of the above bull, ready for service, and whose dams are large-heavy-producing cows. Here is an opportunity to get the blood of KING SEGIS and KING OF THE PONTIACS at reasonable prices. Correspondence solicited.

Also Berkshire and Yorkshire Swine

Larkin Farms Queenston, Ontario

HOLSTEIN CATTLE

The only herd in America that has two sires in service whose dams average 119 lbs. milk a day and over 35 lbs. butter a week. Cows that will give 100 lbs. milk a day are what we are trying to breed. At present we have more of them than any other herd in Canada. We can supply foundation stock of this breeding. Visitors always welcome. Long-distance Phone.

D. C. FLATT & SON, R. R. 2, HAMILTON, ONT.

Clover Bar Holsteins A splendid 14-mos-old son of Minnie Paladin Wayne, who has just completed a record of 26.87 lbs. butter, 545 lbs. milk in 7 days. Her 2-year-old record was 22.33 lbs. For type and color he is second to none. Also her 3-weeks old bull calf and a few others from good R.O.M. dams.

PETER SMITH, R. R. No. 3, STRATFORD, ONT.

FAIRVIEW HOLSTEINS

Anything in herd for sale, which consists of 22 cows, 6 two-year-old heifers bred to freshen next fall and early winter, nine yearling heifers not bred and nine heifer calves. All bred in the purple and priced right.

FRED ABBOTT, R. R. 1, Mossley, Ont

Hospital for Insane, Hamilton, Ontario—Holstein bulls only for sale, four fit for service, one being a son of Lakeview Dutchland Lestrage, and the others from one of the best grandsons of Pontiac Korndyke, and large producing, high testing R. of P. cows.

APPLY TO SUPERINTENDENT

Dumfries Farm Holsteins—Think this over—we have 175 head of Holsteins, 50 cows milking, 25 heifers due to calve in the fall, and 80 heifers, from calves up to 2 years, as well as a dozen yearling bulls, and anything you may select is for sale. Breeding and individuality the very best.

S. G. & ERLE KITCHEN, St. George, Ont.

Evergreen Stock Farm Registered Holsteins—The kind that tests 4% and wins in the show ring. Could spare a few yearling heifers, or if you want a choice young bull 8 months old, we have one that is strictly a gilt edge individual, almost as much white as black. The records of his dam, sire's dam, and grand-sire's dam average over 30 lbs. butter in 7 days and nearly 100 lbs. of milk per day. For quick sale we have priced him within your reach—\$150

A. E. HULET BELL PHONE NORWICH, ONTARIO

For Sale---Sons of King Segis Walker

From high-testing daughters of Pontiac Korndyke. Photo and pedigree sent on application.

A. A. FAREWELL, OSHAWA, ONT.

YOUNG Brampton Jerseys BULLS

For the next fortnight we are making a special offering on young bulls, bred from the highest producing families ever introduced into Canada. Brampton Jerseys and their descendants hold all Jersey R.O.P. records save one. Females all ages, also for sale. B. H. BULL & SON, Brampton, Ont.

THE WOODVIEW FARM JERSEYS

LONDON, ONTARIO
John Pringle, Proprietor

Canada's Most Beautiful Jersey Herd—Half the herd imported from the Island of Jersey. Several cows in the Record of Merit, and others now under official test. Some very choice stock for sale. When writing, state distinctly what you desire, or, better still, come and see them. Farm just outside city limits. We work our showcows and show our work cows.

Central Canada Exhibition

OTTAWA

Sept. 9th to 16th, 1916

\$25,000—Live Stock Prizes—\$25,000

Entries positively close Monday, Sept. 4, 1916.

Greatest exposition of the Agricultural Products of Canada yet made.

Horse Races, Dog Show, Poultry Show

Magnificent Grand Stand Performance and Ring Attractions—Afternoon and evening.

Brilliant Fireworks and Spectacle—Battle of Falkland Islands—Every night.

Reduced rates on all railways.

Send for Prize Lists and information to:

JOHN BRIGHT President. J. K. PAISLEY Mgr. and Sec'y.

Good Luck

COTTON SEED MEAL CALF MEAL OIL CAKE MEAL FLAXSEED GLUTEN MEAL POULTRY FEEDS

Write for prices

CRAMPSEY & KELLY Dovercourt Rd., Toronto, Ont.

HIGHEST PRICES PAID FOR WOOL HIDES, SKINS, HORSEHAIR. FREE SPORTSMEN'S CATALOG of GUNS, TRAPS, NETS, FISHING TACKLE, &c JOHN HALLAM, LIMITED No. 3 HALLAM BUILDING - TORONTO

Choice Tamworths

Boars and sows of all ages, bred from best prize stock. Prices right. Write:

HEROLD'S FARMS, Beamsville, Ont.

Alderley Edge Yorkshires

Young pigs both sexes for sale. J. R. KENNEDY, Knowlton, Que.

ELMFIELD YORKSHIRES Choice ones—ranging from 2 1/2 to 5 months. Will be ready for fall service. Prices right. G. B. MUMA, R.R. 3, Ayr, Ont. Paris, G.T.R. Ayr, C. P. R., Telephone 55 R 2, Ayr Rural.

Morrison Tamworths and Shorthorns—Bred from the prize-winning herds of England. Tamworths, both sexes. 12 young boars fit for service. 12 young sows to farrow in August. Choice Shorthorns of the deep-milking strain. CHAS. CURRIE, Morrison, Ont.

Meadow Brook Yorkshires. Sows bred, others ready to breed. 20 sows, 3 to 4 months old and a few choice young boars. All bred from prizewinning stock. Also 1 Shorthorn bull, 18 months old. G. W. MINERS, R. R. 3, EXETER, ONT.

Pine Grove Berkshires

Sows bred and ready to breed. Boars fit for service. Young things, both sexes, from my prizewinning herd. W. W. BROWNIDGE, R.R. 3, Georgetown, Ont.

PROSPECT HILL BERKSHIRES Young stock, either sex, for sale from our imported sows and boar. Also some from our show herd headed by our stock boar, Ringleader. Terms and prices right. John Welr & Son, Paris, Ont. R. R. No. 1.

AVONHURST YORKSHIRES

Two choice litters, both sexes, from one of the most prolific strains in Canada. They're fit to win, too. B. ARMSTRONG & SON, Codrington, Ont.

TAMWORTHS

Particularly nice young sows and boars, three months old. ANGUS BEATTIE, R. 1, Wilton Grove, Ont.

TAMWORTHS

Young sows bred for September farrow, and some nice young boars. Write: JOHN W. TODD, R.R. No. 1, Corinth, Ont.

Yorkshires and Shorthorns—We are offering two choice Killbean Beauty bulls, one from the imp. cow, Scotch Thistle. Also a choice lot of young Yorkshire pigs of both sexes, from a litter of eighteen, out of a 600-lb. dam. A. McKinnon, Erin, R. M. D. Hillsburg or Alton station. Long-distance phone.

Questions and Answers. Miscellaneous.

Churning Difficulties.

I have had trouble with my churning lately, and would like to know what would be the cause. I have to churn about three-quarters of an hour to get butter, then when I run the buttermilk off it is yellow and seems just like cream, so I don't think I am getting the amount of butter I ought to.

A READER.

Ans.—It is sometimes difficult to ascertain the cause of trouble in getting butter to gather properly. There is frequently more or less difficulty when cows are nearing the end of their lactation period, or when fed exclusively on dry feed. The richness of the cream and the way it is ripened are factors that must be considered. A poor cream seldom churns as easily as a fairly rich cream. Butter-fat in cream that becomes too sour may not all be gathered from the buttermilk. If the cream is thin try moving the cream screw of the separator to skim a richer cream. Cool each day's cream before adding it to the rest. Stir occasionally and try heating to 185 degrees, and then cool to churning temperature and add a starter to ripen the cream. Use a thermometer and have the cream at the proper temperature before commencing to churn.

Ensiling Alfalfa—Percentage Butter-fat in Milk.

- 1. Would it be advisable to put alfalfa in a silo in August and fill with corn in September?
2. Is there a law in Ontario governing the percentage of butter-fat milk must contain to be retailed in towns? If so what is it?
3. A hires with B for a year, commencing work in March. At the end of four months A is offered more wages and leaves, giving four days' notice. Can A collect wages? If so what portion?

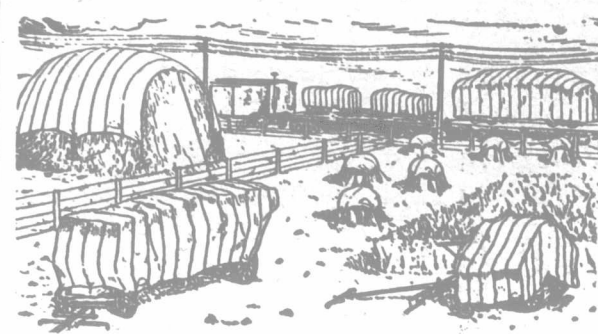
Ans.—1. It has been done. No doubt a few inches of the top silage exposed to the air would spoil and would have to be thrown out before putting in the corn.
2. There is a section in the Dairy Act which gives municipalities power to set their own standards, but milk for human consumption must not contain less than 12 per cent. solids, of which 3 per cent. is fat.
3. From the information given A cannot legally collect wages if he leaves before his time is in without B's consent. However, a court might allow the man a fair wage for the time put in. If B gives his consent to A leaving, then it is a matter of agreement between A and B as to wages to be paid.

Caustic Potash for Dehorning Calves—Book on Feeds and Feeding.

- 1. Let me know where the book by Prof. Henry on Feeds and Feeding can be secured. I would like to get a copy of it.
2. I noticed in "The Farmer's Advocate" where a writer mentioned using a stick of caustic to prevent calves' horns from growing. Could you give me further information about what kind of caustic is used, how and how often is it applied and at what age of the animal should it be applied?

V. G.

Ans.—1. The book on Feeds and Feeding can be secured through this office for \$2.25 post paid.
2. The material used is caustic potash. Dehorning by potash is usually done before the animal is two weeks old or as soon as the button-like embryo can be located on the calf-poll. The hair surrounding the spot should first be clipped off, and the parts moistened with soapy water. When using the potash in stick form it should be wrapped to protect the hand, and the exposed end moistened and rubbed gently on the buttons until they become sensitive and red, but not to the extent of bleeding. Care must be taken that the dissolved potash does not run down the side of the head, as there is danger of burning and permanently disfiguring the calf. One treatment is usually sufficient.



Canvas Covers and Tents

of all kinds direct to consumers at factory prices.

Veteran Stitched Canvas Belts, Hose, Tank Pumps, and all Threshers' Supplies.

Send for catalogue.

WINDSOR SUPPLY COMPANY, WINDSOR, ONT.

H. ARKELL W. J. ARKELL F. S. ARKELL

Summer Hill Stock Farm

Largest and oldest importers and breeders of

OXFORDS

in Canada. Look up our show record, it will give you an idea of the kind of Oxfords we have for sale.

PETER ARKELL & SONS, Proprietors, Teeswater, Ont. Customers, beware of imitations of this advertisement.

Summer Hill Farm

THE HOME OF THE FAMOUS OXFORD

We breed and import Registered Oxfords. Rams and ewes in any quantity for sale. All recorded. Positively no grades registered as pure-breds. Also no grades-handled except by order.

PETER ARKELL & CO., Props. Box 454, Teeswater, Ontario

Oxford and Hampshire Down Sheep

Farnham Farm The oldest established flock in America

Having quit the show ring we hold nothing back. Our present offering is a number of superior yearling and two-shear rams for flock headers, a carload of yearling range rams, a hundred first-class yearling ewes; also a fine lot of ram and ewe lambs of 1916.

ALL REGISTERED HENRY ARKELL & SON, ROUTE 2, GUELPH, ONTARIO

BLAIRGOWRIE SHROPSHIRE AND SHORTHORNS

PRESENT OFFERING: 100 Imported Shearling Ewes 75 Canadian-bred Shearling Rams JOHN MILLER, Ashburn, Ont. 25 Imported Shearling Rams 20 Cows and Heifers in Calf Myrtle Sta., C.P.R. & G.T.R. 75 Canadian-bred Shearling Ewes 5 Bulls of serviceable age

CLOVERDALE LARGE ENGLISH BERKSHIRES

Sows bred, others ready to breed; boars ready for service; younger stock, both sexes, pairs not akin. All breeding stock imp. or from imp. stock. Prices reasonable. C. J. Lang, Burketon, Ont. R. R. 3

Newcastle Herd of Tamworths and Shorthorns—Stock boar and 2 aged sows for sale; fit for any show ring; also boars ready for service, and a number of sows bred for Aug. and Sept. farrow; others ready to breed, both sexes ready to wean; all descendants of imported and championship stock. A few choice bull calves, from 2 weeks up to a year old, from great dual-purpose cows; several extra good cows, with or without their calves; also heifers in calf to Broadlands, my present stock bull. Show stock a specialty. Prices reasonable. Long-distance phone. A. A. COLWILL, R.M.D. No. 1, Newcastle, Ont.

BERKSHIRES My Berkshires for many years have won the leading prizes at Toronto, London and Guelph. Highcleres and Salls, the best strain of the breed, both sexes, any age. ADAM THOMPSON R. R. No. 1, Stratford, Ontario Shakespeare Station, G.T.R.

Lynmore Stock Farm Our present offering is young breeding Berkshires, both sexes and any desired age, sire and dams imported, high-class in type and quality and priced right. Also one 2-year-old imported dairy-bred Shorthorn bull with official backing for generations back. F. W. Cockshutt, Brantford, Ont.

Maplehurst Herd of Tamworth Swine S.-C. W. Leghorns and White Rocks—This herd has won about 90 per cent. of the prizes offered in the last ten years at the Canadian National, Toronto, Ottawa, London and the Guelph Winter Fair. D. DOUGLAS & SONS, R. R. No. 4, MITCHELL, ONTARIO

Quality in YORKSHIRES FOR SALE—We have a number of choice sows bred and others of breeding age; also a limited number of young boars. RICHARDSON BROS. COLUMBUS, ONT.

ELMHURST LARGE ENGLISH BERKSHIRES From our recent importation of sows, together with the stock boar, Suddon Torredor we can supply select breeding stock, all ages. Satisfaction and safe delivery guaranteed. H. M. VANDERLIP, Breeder and Importer, R.R. 1, Brantford, Ontario Langford Station on Brantford and Hamilton Radial.

YORKSHIRES Our offering never better. Champion hog winner of 12 firsts, 5 championships, two years showing, still at the head. Boars and sows, all ages, same breeding as winners of export bacon in keen competition at Toronto in 1915. WM. MANNING & SONS, Woodville, Ontario

Oak Lodge Yorkshires We are in a position to supply boars and sows of different ages. We have an established type of Yorkshires that has been produced through many years of careful breeding and selection. J. E. BRETTHOUR & NEPHEWS, Burford, Brant County, Ont.

Duroc Jersey Swine, Jersey Cattle—In Duroc Jerseys we have either winners and champions for generations back. In Jerseys we have young cows in calf, and young bulls, high in quality and high in producing blood. MAC. CAMPBELL & SONS, Northwood, Ontario

AUGUS... Co... They... They... They... lift... and... cost... wood... Se... "Th... S... Pres... Patent... Farmers... Ly... to attach... you full... DICK... C... We t... exper... We t... We r... make... to shi... partic... Toron... C... Wh... And... cream... We w... and n... us... Wr... Silv... CRE... Ship yo... We pay... We sup... We remi... We guar... Ontari... FU... Writ... Cata... THE AI...

**Covers
ents**

to consum-
y prices.
itched
Belts,
umps, and
Supplies,
atalogue.
ONT.

KELL

a of the
Ont.

quantity for
ds.
er, Ontario

Sheep

uperior year-
red first-class

ONABLE
ONTARIO

HORNS

LLER,
Ont.
R. & G.T.R.

SHIRES

airs not akin.
R. R. 3

s for sale; fit
bred for Aug.
imported and
eat dual-pur-
Broadlands,
e.

eadling prices
s and Sullys,
e.

, Ontario

shires, both
ported, high-
t. Also one

atford, Ont.

and White
as won about
rizes offered
Winter Fair.

ONTARIO

a number of
ers of breed-
number of

BUS. ONT

RES

on Torredor,
guaranteed,
Ontario

og winner of
wing, still at
ne breeding

Ontario

and sows of
ed type of
ough many

, Ont.

have either
bred from
and young

Ontario

Cost and Service

The two factors considered before a purchase is made.

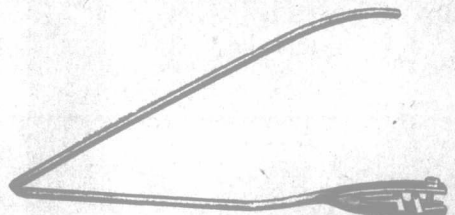
Steel Truss Barns

measure up to every requirement. They are as sturdy as a skyscraper. They have no cross-beams to hinder unloading or mowing away. They are fire and lightning-proof. They have metal clad, roller doors, lift roof-lights, sliding side windows and "Acorn" ventilators. The cost will compare favorably with a wood frame barn.

Send for a copy of new book, "The Steel Truss Barn."

The Metal Shingle & Siding Co., Limited
Preston, Ont. Montreal, Que.

Patented Jan. 25th, 1916. No. 167260



Lying Grain Lifters

Farmers, get all your grain by using a set of

to attach to your binder. A post card will bring you full information and prices. Write to-day.

DICK AGRICULTURE WORKS
Bolton, Ontario

CREAM WANTED

We think we have the longest experience. We try to give the best service. We need your cream and will make it "worth your while" to ship to us. A card brings particulars.

Toronto Creamery Co., Ltd.
TORONTO

CREAM

Where are you shipping now? And what are you getting for your cream?

We want more individual shippers and more men to gather cream for us.

Write for our proposition.

Silverwoods Limited
LONDON, ONTARIO

CREAM WANTED

Ship your cream to us. We pay all express charges. We supply cans. We remit weekly. We guarantee highest market price.

Ontario Creameries Limited
London, Ont.

DO YOU NEED FURNITURE?

Write for our large photo-illustrated Catalogue No. 7—it's free to you.

THE ADAMS FURNITURE CO., Limited
Toronto, Ontario



Many Thousand Farm Laborers Wanted FOR HARVESTING IN WESTERN CANADA

"Going Trip West" | "Return Trip East"
\$12.00 TO WINNIPEG | \$18 from WINNIPEG

GOING DATES

August 17th and 31st From Toronto-Sudbury Line and East, but not including Smith's Falls or Renfrew, also from Main Line East of Sudbury to, but not including, North Bay.

August 19 and September 2 From Toronto also West and South thereof

Further particulars from Canadian Pacific Ticket Agents, or W. B. Howard, District Passenger Agent, Toronto.

Homeseekers' Fares FROM TORONTO

To Winnipeg and Return.....	\$35.00
To Regina and Return.....	38.75
To Saskatoon and Return.....	39.75
To Edmonton and Calgary and Return....	43.00

EVERY MONDAY TO OCTOBER 30TH
Proportionate Fares from and to other Points
ELECTRIC LIGHTED TOURIST CARS

For our Booklet, "Homeseekers' and Settlers' Guide," tickets and information, apply to nearest Canadian Northern Agent, or write to
R. L. Fairbairn, General Passenger Agent, 68 King Street E., Toronto, Ont.

A FINE RECORD

The results of the examinations during the past year show a magnificent record for Albert College. In the Departmental Examinations 90 per cent. of those who wrote on Senior Matriculation and Faculty got their standing. In Normal Entrance and Junior Matriculation ten students were successful, three securing honors, and only one had spent two years on the work, the time allowed by the High Schools.

With one exception all Piano and Vocal students were successful in passing Conservatory and College examinations, most securing honors and many first honors. All candidates in Art, whose work is examined by Prof. W. A. Sherwood, R.A., C.A., passed, many with honors. All students in the Expression Department were successful.

Illustrated Calendar and terms sent on application.

ALBERT COLLEGE

58 Years as Successful Educators **Belleville, Ont.** E. N. BAKER, D.D. Principal 1-16

Free Land FOR THE SETTLER IN Northern Ontario

Millions of acres of virgin soil, obtainable, free at a nominal cost, are calling for cultivation. Thousands of farmers have responded to the call of this fertile country and are being made comfortable and rich. Here, right at the door of Old Ontario, a home awaits you.

For full information as to terms, regulations and settlers' rates, write to:

H. A. MACDONELL, Director of Colonization
HON. G. HOWARD FERGUSON, Minister of Lands, Forests and Mines
Parliament Buildings, TORONTO, ONT.

"1900" Gravity Washer

Sent free for one month's trial. Write for particulars.

"1900" WASHER COMPANY
357 Yonge Street Toronto, Ont.
(Factory, 79-81 Portland St., Toronto)

If you want a gilt-edged investment ask for a **Mutual Life Endowment**

DOUGLAS EGYPTIAN LINIMENT

Stops Bleeding at once.
Removes all Inflammation.
Prevents Blood Poisoning.
A Speedy Cure for Thrush.
For Sale Everywhere.
Free Sample on Request.
DOUGLAS & COMPANY MFRS.,
NAPHEE, ONTARIO

R.M.S.P.

FORTNIGHTLY SAILINGS
Twin-Screw Mail Steamers
FROM **ST. JOHN (N.S.)**
AND **HALIFAX (N.S.)**
TO THE **WEST INDIES**

Excellent Accommodation for 1st, 2nd and 3rd Class Passengers
SPECIAL FACILITIES FOR YOUNGSTERS

NEXT SAILING FROM HALIFAX:
R. M. S. P. "Chaleur"
August 11, 1916

APPLY TO
The Royal Mail Steam Packet Co.,
57-59, Granville St., HALIFAX (N.S.)
GO TO THE
Local TICKET AGENCIES.

GRAND TRUNK RAILWAY SYSTEM

Attractive Trips
TO
Muskoka Lakes Lake of Bays
Georgian Bay Algonquin Park
French River Kawartha Lakes
Magametawan River
Temagami, etc.

Round trip tourist tickets now on sale from certain stations in Ontario at very low rates, with liberal stop-overs.

Muskoka Express

Leave Toronto 12.01 p.m. daily except Sunday, and 2.05 a.m. daily for Muskoka Wharf. Connections are made at Muskoka Wharf for Muskoka Lakes. Leave Toronto 10.15 a.m. daily except Sunday; and 2.05 a.m. daily for Huntsville, for points on Lake of Bays. Equipment the finest.

Full particulars on application to Agents

Pratts Poultry and Animal Regulators

A remedy for every ailment. Write now for FREE advice and descriptive literature. Address:
PRATT FOOD CO. OF CANADA, LTD.
686 Claremont St., Toronto

Men's Clothing For Sale

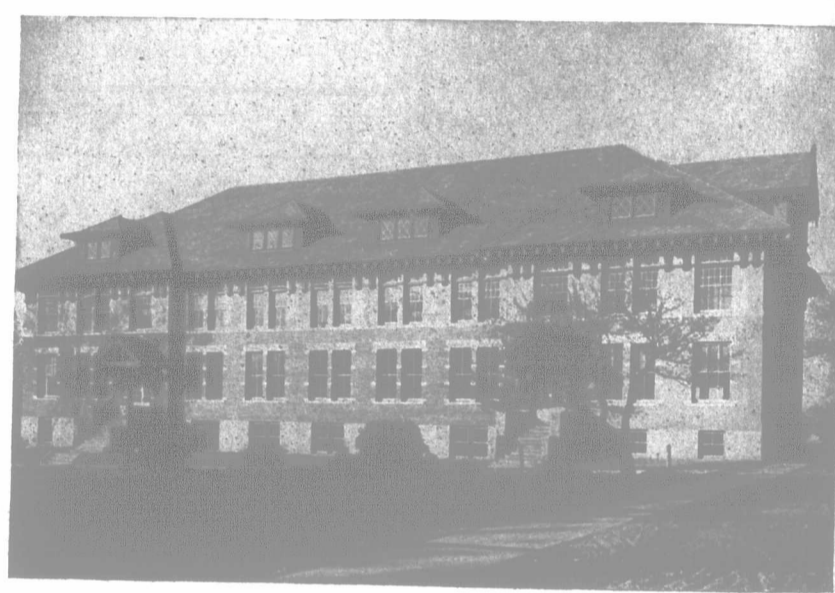
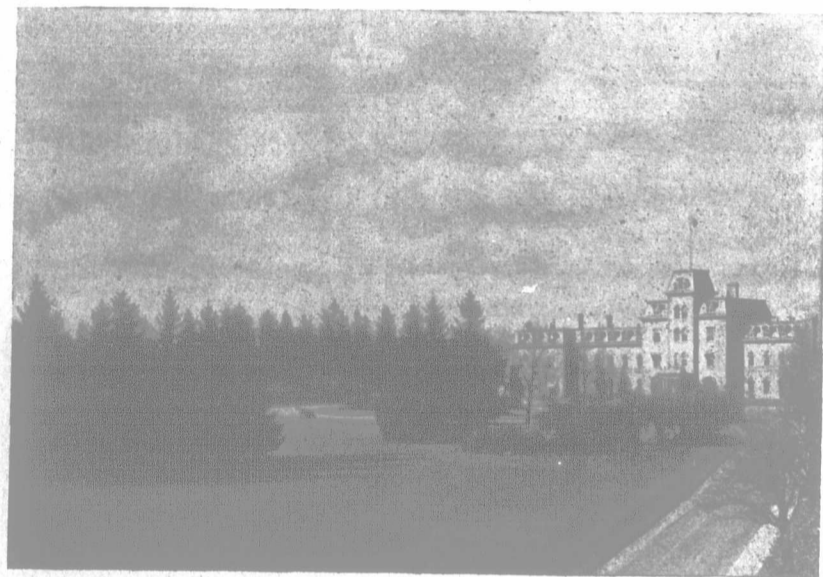
Get your new suit from Catesby's, London, England, for half what you pay local tailor. Best materials, style, fit guaranteed, or money back. Write for free catalogue, self-measurement form and patterns. Address:
CATESBYS LIMITED, Canadian Office
119 West Wellington Street, Toronto
Mention "Farmer's Advocate"

\$15 95 AMERICAN
Upward CREAM
SEPARATOR

Sent on Trial. Fully Guaranteed. Easy running, easily cleaned. Skins warm or cold milk. Bowl a sanitary marvel. Whether dairy in large or small obtain hand some catalog. Address, 5200
AMERICAN SEPARATOR CO., Bainbridge, N.Y.

The Ontario Agricultural College

Guelph, Ontario



!!!! YOUNG MAN !!!!!
IF YOU CAN'T GO TO WAR
GO TO COLLEGE

Learn to increase your earning capacity on the farm. Learn business methods.
 Learn how to produce better crops and better live stock.
 Learn to grow good fruit, better poultry and the best of everything.

September to April at College
April to September at Home

Public School education is sufficient for admission. Board, tuition and other expenses most reasonable. If you wish to take the Four-Year Course for the degree of B.S.A., you do not require matriculation standing.

COLLEGE OPENS SEPTEMBER 19th

Write for a calendar of the regular courses.

G. C. CREELMAN, B. S. A., L. L. D., President