

PUBLISHED EVERY WEEK. \$1.50 PER YEAR:

# THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

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VOL. LI.

LONDON, ONTARIO NOVEMBER 9, 1916.

No. 1259

## High Quality First, Last and All The Time

THE maintenance cost of a rural telephone system depends on the quality of the equipment. The better the equipment the lower the cost for repairs and the better the service rendered the subscribers. The big point to remember first,

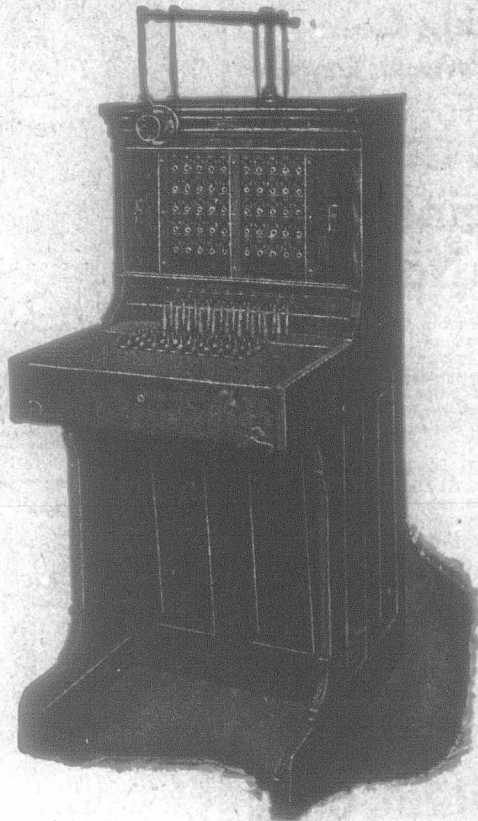
last and all the time in buying telephones is HIGH QUALITY.

The system that installs Canadian Independent Telephones puts the very highest quality instruments on their lines and insures the highest class service at the lowest maintenance cost.

### CANADIAN INDEPENDENT TELEPHONES

have earned a reputation for high quality by years of satisfactory service on independent rural telephone systems in Ontario. We would be pleased to refer you to the secretaries of these systems, or have you test our telephones alongside other makes on your own lines. Ask about our Free Trial Offer.

Canadian Independent Telephones are "Made in Canada" and fully guaranteed. We make everything in telephones—magneto telephones for rural, party line service; automatic telephone systems for factories, public buildings, etc.



We supply everything in telephone equipment and materials and guarantee them to be of first quality.

Our switchboards are of the latest and most up-to-date design, and enable the operator to give the quickest and most efficient service.

Write for our No. 6 Bulletin. It completely describes our modern rural telephones. Also other literature describing our automatic systems, switchboards, etc., mailed free on request.

## Canadian Independent Telephone Co., Limited

261 Adelaide Street West, Toronto

## To Investors

THOSE WHO, FROM TIME TO TIME, HAVE FUNDS REQUIRING INVESTMENT, MAY PURCHASE AT PAR

### DOMINION OF CANADA DEBENTURE STOCK

IN SUMS OF \$500 OR ANY MULTIPLE THEREOF.

Principal repayable 1st October, 1919.

Interest payable half-yearly, 1st April and 1st October by cheque (free of exchange at any chartered Bank in Canada) at the rate of five per cent per annum from the date of purchase.

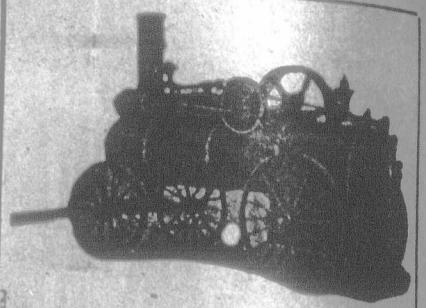
Holders of this stock will have the privilege of surrendering at par and accrued interest, as the equivalent of cash, in payment of any allotment made under any future war loan issue in Canada other than an issue of Treasury Bills or other like short date security.

Proceeds of this stock are for war purposes only.

A commission of one-quarter of one per cent will be allowed to recognized bond and stock brokers on allotments made in respect of applications for this stock which bear their stamp.

For application forms apply to the Deputy Minister of Finance, Ottawa.

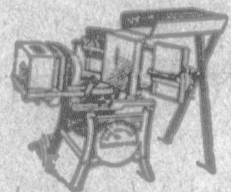
DEPARTMENT OF FINANCE, OTTAWA,  
OCTOBER 7th, 1916.



### 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  
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Build Silos, Dwellings or any class of building from Concrete Block. The London Adjustable Concrete Block Machine makes every kind and size of block. High grade. Moderate price. We manufacture a full line of Concrete Machinery. Send for Catalogue No. 3.

LONDON CONCRETE MACHINERY CO.,  
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World's Largest Manufacturers of Concrete Machinery

REES & SHRUBS  
BROWN BROTHERS CO.  
BROWNS NURSERIES, ONT.

**Safety First**

Every Farmer, Every Owner of Horses Should Use **RED TIP HORSESHOE CALKS** during the Winter Season.

Whether your horse is a light roadster or a heavy draught horse there is a calk made especially to fit his requirements. When worn down **RED TIP HORSESHOE CALKS** can be removed and a new set inserted in twenty minutes.

They will not break off and instead of becoming dull will wear sharper with use. By this method your horse is always sharp shod and you eliminate all the danger and worry of Winter travel.

**RED TIP HORSESHOE CALKS** are cheap, easy to get, easy to put on and will absolutely hold up any horse on any pavement or road, no matter how slippery. They will save time, money and annoyance.

Go to your horseshoer today and have your horse fitted with **RED TIP HORSESHOE CALKS** and remember that genuine **NEVERSLIP HORSESHOE CALKS ALWAYS HAVE RED TIPS.**

Send for Booklet 4, which will tell you all about them.

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

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

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Of Fancy qualities in Alsike or Red Clover, Timothy, etc. We invite correspondence, and pay highest prices for Fancy Grades. Sample Bags sent free upon request.

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NOW is the time to make money in poultry—now, when the price of eggs is away up. One cent a month is all it costs to start your hens laying early and to keep them laying all winter. Try

**Pratts Poultry Regulator**

at our risk. We will refund your money if you don't get more eggs. Thousands of live poultrymen are using "Pratts" and are asking in on their wisdom and foresight. Pratts Poultry Regulator keeps the fowls healthy and vigorous, tones up the organs of digestion and egg production—prevents disease.

At your dealer's in 25c pkgs.—larger, money-saving sizes up to 12-lb. pails at \$1.25; 25-lb. pails, \$2.50; 100-lb. bags at \$2.00.

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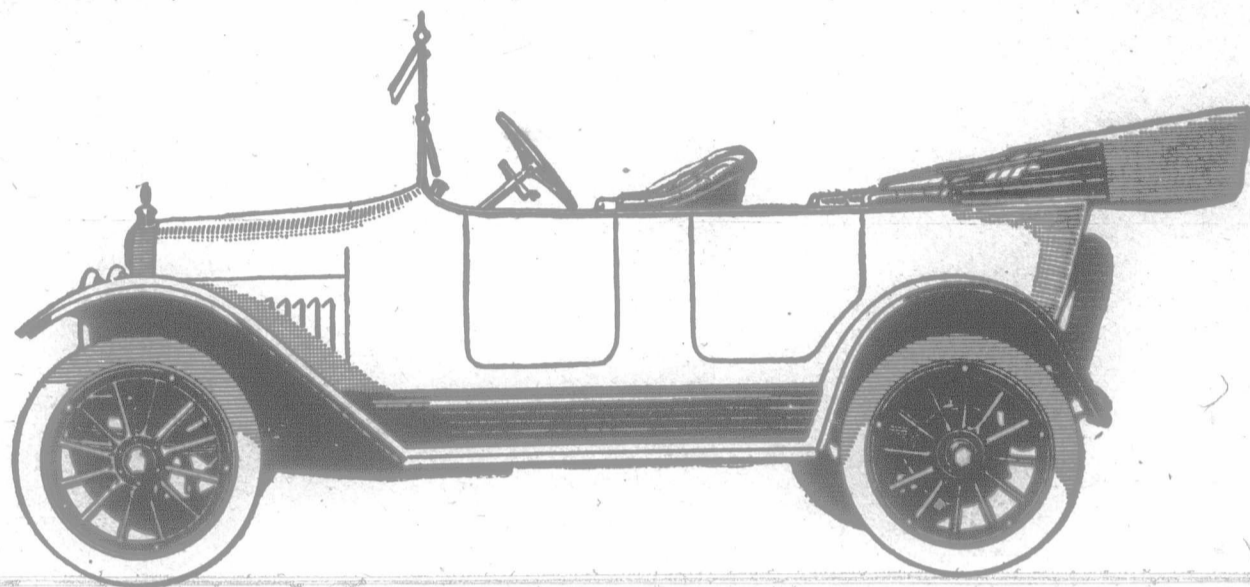
**John Hallam Limited**  
306 Hallam Bldg., Toronto

GUNS, traps, animal bait, nets and supplies are described and priced in our 32 page Sportsman's Catalog which we mail free.

**RAW FURS**—We are the largest Cash Buyer of Raw Furs direct from the Trapper in Canada.—Our Raw Fur Quotations sent Free.

# Maxwell \$850

F. O. B. WINDSOR



## Higher Priced Cars Are Extravagant For The Average Buyer!

It is just a simple business proposition—why should you pay more than the Maxwell price for a car that cannot offer you more advantages?

Does it sound like good judgment?

True, the Maxwell may not offer quite all of the frills that the expensive cars afford, such as cigar lighters, vanity cases, etc. But every single feature that gives convenience and actual service is embodied in the Maxwell.

You can't buy a car that will give you better service—greater economy—more downright satisfaction.

You may have bad roads—mud, sand or hills—you may want low upkeep expense—the Maxwell will answer your requirements perfectly.

The Maxwell is light in weight, extremely powerful, in fact, just right to go easily over the roads, good or bad.

It's a car you soon have absolute confidence in. When you have driven a Maxwell a few weeks you realize just what it will do. You get a new idea of motor car service.

The Maxwell is all the car you want—you can't buy more—that's why it is the sensible car. That's why it is extravagant for the ordinary buyer to pay more!

Write for Catalogue C6



# Maxwell

Motor Company of Canada, Ltd.,

WINDSOR, ONT. and WINNIPEG, MAN.

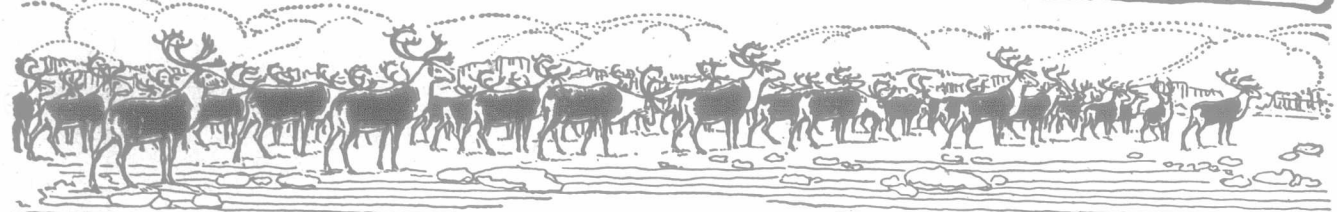


**Penmans**

ON most clothes lines you'll find Penmans Knit Goods—  
 ON wash days, of course. A dollar invested in them means a dollar put into health insurance—comfort, physical and mental. They keep you warm, they fit, they wear, and furthermore you feel that Penmans do these things for you at the least possible expenditure on your part.

Penmans Limited  
 Paris

Made in Canada



**Hard-Hitting Big Game Cartridges**  
 are the only sure kind to make your hunting trip the success you expect it to be. Velocity and accuracy are the two important features in big game ammunition.

**Dominion Cartridges**  
 embody fully these requirements and supplement them with the reliability that comes from high quality materials, skillful workmanship and careful testing. A sensitive primer that flashes deep into the powder gives instant response to trigger and aim and makes Dominion the high-power ammunition for caribou, moose, bear, deer and all Canadian big game. A sure "hit and stop" is loaded into each cartridge to back up the sportman's aim. No matter what the shooting conditions Dominion Cartridges meet the requirements. Write today for our attractive picture "A Chip of the Old Block."

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*Dominion—the only Canadian-made ammunition.*

**Save a Team During Harvest — Run Your Binder with 2 horses and a Cushman Engine**

Better than 4 horses without the engine. Team simply draws machine. Engine does all operating. Sickle never stops when bull wheel skids. Easily attached to any binder. 4-cycle 4-H. P.

Weights Only 167 pounds

Quickly detached for any other farm power work. Delivers full 4 H. P. Speed changed while running. Has patented clutch pulley with sprocket for chain drive to double sprocket on binder. Schebler Carburetor. Also 2-cylinder 6-H. P. up to 20-H. P. heavy duty, light weight specialty farm engines. State size wanted.

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 283 Princess St., Winnipeg, Canada

**Farm Cushman**  
 The Original Binder Engine

The FAMOUS 4 h.-p. CUSHMAN ENGINE has just been mounted in combination with a flax-baling machine at Forest, Ont., and it has proved a decided success. This has been the verdict on Cushman Engines wherever used as auxiliary power on binders, potato diggers, etc., etc.

*My Dad wears*

**BOB LONG**  
 UNION MADE  
 GLOVES & OVERALLS

*Known from Coast to Coast*  
**R.G. LONG & CO. LIMITED**  
 WINNIPEG TORONTO

**Don't Haul Bricks IN JANUARY**

Now is the time to haul while the weather and roads are good. Then you are all ready to start building that new home or barn away ahead of the other fellow next Spring. We might also say that

**Interprovincial Pressed Brick**

is the brick you should haul, that is, if it is a faced brick you are looking for. They are made of extra heavy shale, natural colors, and have fine cut edges and a very smooth surface. Write for a set of samples and see for yourself what a strong, handsome brick "Interprovincial" really is. Write to-day—all charges paid by us.

**Interprovincial Brick Co. of Canada Limited**  
 GOODYEAR BLDG., TORONTO, ONT.

Please mention "The Advocate."

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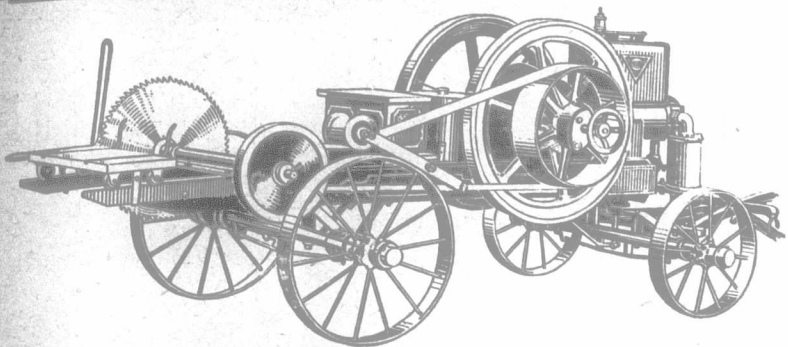
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## Look Well to the Power End of Your Sawing Rig

No part of a wood sawing rig should be more carefully scrutinized than the engine. It is the engine you must rely on to keep the outfit working.

Cold weather does not affect the steady, smooth running qualities of the Alpha. This is a great advantage, as most of your wood sawing will be done during cold weather.

The carburetor and ignition system are entirely free from complicated parts. When you start your Alpha in the morning you can rely on it plugging away steadily all day. There is nothing to fuss or tinker with—not even batteries. The perfect control of the sensitive Alpha governor instantly regulates the engine to the varying loads that are always encountered in sawing wood. This feature and the great reserve power of the engine will keep the saw going steadily through big or little wood.

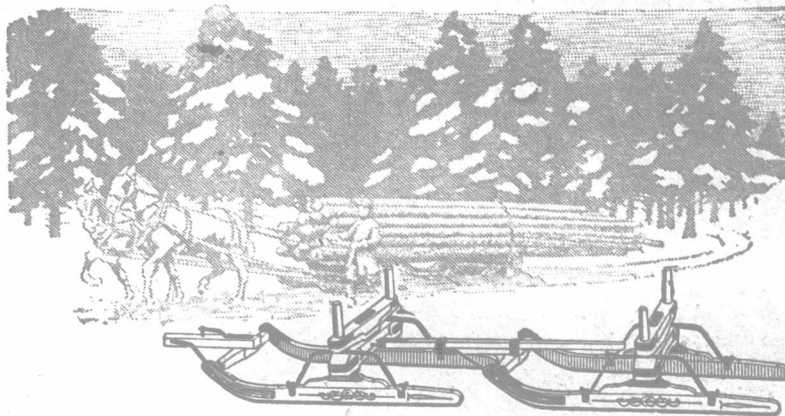
The above illustration shows one of our special steel frame mounted sawing outfits. Let us know what your requirements are, and we will be glad to quote you prices and send description of a rig such as you wish.

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LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA. Sole distributors in Canada of the famous De Laval Cream Separators and Alpha Gas Engines. Manufacturers of the Ideal Green Feed Silos.

Catalogues of any of our lines mailed upon request.

MONTREAL PETERBORO WINNIPEG VANCOUVER  
50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER



## Winter Hauling Made Easy

FOR the use of our customers whose hauling cannot be stopped by the snows of winter, or to whom the snows are welcome, as furnishing a smooth hard road over which to move their products, we offer a line of bob sleighs so complete that each man may find in it the kind of sleigh he needs and uses.

Unless a sleigh will stand hard knocks, it is of little value in Canada. Therefore, we make these sleighs, above all else, strong. Even the lightest one-horse sleighs are as strong as selected pieces of high-grade wood and steel and the most careful workmanship can make them. No imperfect or unsound material finds its way into the manufacture of these goods.

Each sleigh we sell is guaranteed, with fair usage, to carry its load over ordinary roads and to do the work intended for its size. We make a liberal guarantee arrangement to take care of the satisfaction of our customers.

See our line before you buy. It is handled by I H C local agent who will show you how big a line it is. Or, if you cannot conveniently see the agent, drop a line to the nearest branch house and we will send full information.

### International Harvester Company of Canada, Ltd.

BRANCH HOUSES

At Brandon, Calgary, Edmonton, Estevan, Hamilton, Lethbridge, London, Montreal, N. Battleford, Ottawa, Quebec, Regina, Saskatoon, St. John, Winnipeg, Yorkton

If You Have an Impoverished Pasture Field, an Application of

# SYDNEY BASIC SLAG

IN THE FALL OR EARLY WINTER

will bring it back to fertility and enable you to carry more stock than ever before. What's more, the quality of the animals raised will be vastly improved. Drop us a line, and no doubt we can give you the name of some good farmer in your neighborhood with whom you can speak on the telephone and get the benefit of his experience with our goods.

The use of Sydney Basic Slag will build up the fertility of your farm and enable you to make more money.

**The Cross Fertilizer Co., Limited**  
SYDNEY, NOVA SCOTIA

## Money May Not Bring Happiness

—but it will help you to avoid a great deal of unhappiness.

It is a mighty comfortable feeling to know that in an emergency you have a few hundred or a few thousand dollars to fall back upon.

Moreover, \$1,000 or so in hand at the right moment may help you to acquire an interest in a good business, instead of being an employee for the rest of your life.

Start saving to-day. We will help you if you will let us. Write for booklet "Profits from Savings." Address Dept.: 9

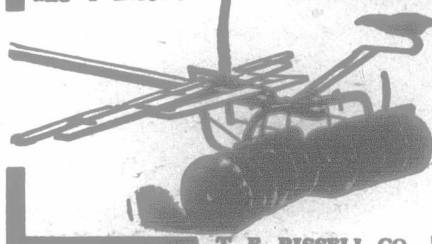


**STANDARD RELIANCE MORTGAGE CORPORATION**  
Head Office, 82-88 King St. E. Toronto

Branches: Ayr, Brockville, Chatham, Elmira, New Hamburg

Sizes for 2, 3 and 4 horses.

## THE BISSELL DISK



has made a great record throughout all Canada. There are good reasons why this is so. Balanced Right—Does not hump up. Improved Plate—Cuts and turns soil over. Hitches well Back—Easy draught. This Disk has several imitations, but no equal. None genuine without the name "BISSELL." Test trials given on hard land with anything that cultivates. Write Dept. W for free Catalogue.

T. E. BISSELL CO., LIMITED, ELORA, ONT.

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

# Wonderful New Coal Oil Light





**Beats Gasoline  
or Electricity**



**Whole Room is  
Light as Day**



## Twice the Light—on Half the Oil

Burning common coal oil, the Aladdin produces a light that beats gas, electricity and acetylene—that makes old-style, round-wick lamps seem feeble as candles in comparison. In giving this better light, the Aladdin uses less than half as much oil.

**Burns 94% Air — 70 Hours on a Gallon of Oil** No odor, noise or smoke. Gives a white, mellow, restful, steady light. Comes nearest to sunlight of all man-made lights. Leading Universities have tested and endorse the Aladdin. It was awarded the Gold Medal at the Panama Exposition against the world's best. Three million people are already enjoying it.

**Banish Eye Strain — Save Children's Eyes** Dim lights are responsible for much eye strain, headache and misery. The Aladdin banishes these ills. Saves the children's eyes. Encourages study and reading. Cheer and contentment abide in homes made bright by Aladdin.

### HERE'S YOUR CHANCE To Make a Lot of Money

Every home needs good light. The Aladdin—with its wonderful gift to country homes of the brightest and mellowest of all lights—produced from ordinary coal oil at a big oil saving—needs only to be shown. When it's seen, it is taken for trial with open arms; when it's tried, its users never go back to the old feeble lights.

#### These Men Without Former Experience Make Big Money—So Can You

J. R. Stewart, who has sold over 500 Aladdins, writes "there are unlimited possibilities in store for the Aladdin Distributor."

W. T. Grieve, Ontario, with no previous experience says he sold 7 lamps in a little over two hours.

Charley Stanley, a paper hanger, puts in his evenings selling Aladdins and nets \$5.00 to \$15 for each evening's work.

W. H. Hilemon sold six between 2 and 8 p. m. \$18.00 for four hours' work.

Mrs. M. R. Dutton has the Aladdin in her home, has made a lot of money in its distribution and proudly writes: "I have lighted up

the homes in the community for miles around with Aladdin Lamps."

There is no limit to the field. Many distributors have replaced electric lights with Aladdins.

F. A. Sundvall, of B. C., for instance, says he has placed nearly 300 in a country where electricity is king.

Charlie Conrad, a farmer, made \$2,000.00 in two winters in spare time, distributing Aladdins.

M. T. Zanke, Manitoba, places lamps out on trial and writes "called at 20 houses, and sold 18—the lamp will speak for itself."

*(Addresses furnished on request.)*

Thousands are coining money with the Aladdin—send the coupon—see if you don't want this chance to make a lot of money.

#### No Money Needed—We Furnish the Capital

**\$1000 in Gold For a Lamp Equal to the ALADDIN** To any person who can produce or show us an oil lamp equal to the New Aladdin we'll pay \$1000 in gold.

Write for circular giving full particulars of this great challenge offer. The Aladdin stands head and shoulders above competition. That's why we make the offer.

**10 Days' Free Trial. Send No Money—We Pay Charges** Will you agree to use the Aladdin lamp in your home ten days if we'll send it prepaid? All right!

Just fill out the coupon and we'll send you full particulars about our 10 day free trial offer. You can then see for yourself that our claims for the Aladdin are based on conservative facts. You can see how the Aladdin makes your old style lamp look like candles. You can find out how noiseless, smokeless and odorless it is—how it really does beat gas, electricity, and acetylene for brilliancy, and how it saves one-half or more in oil and actually pays for itself. Just send the coupon. We'll do the rest.

**Get One Free—Send the Coupon**  
To One User in Each Locality, We Offer the Big Chance to Get the Aladdin Free and Make Big Money

We have thousands of inquiries from our advertising. We want one user in every locality to whom we can refer folks who are interested in the Aladdin. You don't need to be a good talker. Just let people see the Aladdin lighted up and IT WILL DO ITS OWN SELLING.

Write quick—send the coupon—be the first to apply in your neighborhood for the chance to get the Aladdin free and to make some big money. Send the coupon. We'll tell you the whole plan. Don't wait. **Be the first.**

**Mantle Lamp Co., 544 Aladdin Building, Montreal**  
Largest Kerosene (Coal-Oil) Mantle Lamp House in the World  
Also Offices and Warerooms at Winnipeg

**Mantle Lamp Company**  
544 Aladdin Building, Montreal

Gentlemen:—I want to know more about

the Aladdin Lamp—

Your offer to send Aladdin prepaid for 10 days' trial—

Your plan whereby I can get my Aladdin free and make a lot of money distributing Aladdins without the need of experience or capital.

(NOTE—If you are interested in the money-making chance, write a letter and attach to the coupon, tell us something about yourself, whether or not you have a rig or auto to work in rural districts, give your age, present occupation; say whether you can work full time or just part time, when you can start and what territory you would prefer. Hurry your letter before territory is taken.)

Name.....

P. O. .... Province.....

# The Farmer's Advocate and Home Magazine

PERSEVERE  
AND  
SUCCEED

ESTABLISHED  
1866

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

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LONDON, ONTARIO, NOVEMBER 9, 1916.

1259

## EDITORIAL.

Save the sows.

It is the business farmer that makes good.

Secret diplomacy should end with the war.

Where are the farm implements and machinery?

Make the best use of the fall in preparation for spring.

There are 175,000 farms in Ontario and nearly all are short of man power.

There is only one more-to-be-despised man than the slacker, the grafter.

Sale records prove that there is money in the right kind of pure-bred stock.

Canada can raise the 500,000 but it should be done by more system in recruiting.

Feed over all the cattle possible rather than dispose of stockers to be slaughtered.

The successful dairyman must know what each individual cow in his herd is doing.

No man is independent of his fellowman. No nation can exist without other nations.

We should be prepared for peace, but it is necessary first to be prepared to win the war.

Breed families are almost as important as the breed itself, but in buying do not forget individuality.

The man who stayed with the live-stock game when prices were low and trade dull has been paid for sticking.

It is far better to finish this war up right than to stop half way and have a more gigantic struggle a few years later.

"Gentlemen's agreements" are sometimes responsible for the high prices demanded for certain necessary articles.

The slogan of the Progressive Party in the United States was "Pass Prosperity Around," and the Party did not last long.

The man who relies on mixed farming is safe, but operating too many special lines makes it difficult to bring any to perfection.

Politicians praise the farmer and agriculture generally when running for office. After the election they forget all about it.

The man who accuses another of disloyalty better first be quite sure that all he says and does himself is in the best interests of his country.

There have been many lessons for the farmer in this year's operations. An account of your experiences would be appreciated by Farmer's Advocate readers.

We are told that good grade ewes are worth upwards of \$15 each. Last week we saw some pure-bred yearling ewes sold for \$27 each. And yet the majority of our farmers claim that there is no money in sheep.

### The Case Against Oleo.

The agitation over the High Cost of Living takes some peculiar twists and turns, and from time to time some would-be benefactor of the consumer comes out with a policy regarding one or more articles of consumption, and the people, chafing under high prices, get behind him without first carefully weighing the question. During the past few weeks butter has been unusually high in price in Canada, and someone, doubtless interested directly or indirectly in the manufacture and sale of a substitute called oleo-margarine or butterine saw a good opportunity to get a following by asking that this fat be allowed access to this country. The subject was immediately taken up by the daily press, and some city people pronounced themselves strongly in favor of a movement to secure free importation of oleo and this of course would mean manufacture of the product in Canada. There are rumors also that the authorities at Ottawa are contemplating the question.

The last Dairy Bill, which passed the House of Commons April 1, 1914, after a strenuous fight upon the part of oleo interests—a fight in which "The Farmer's Advocate" took a strong stand on the side of Canadian dairying—was very clear cut, and prohibited the manufacture and sale of butter substitutes in this country. It was a Bill upon which we complimented the Hon. Martin Burrell, Minister of Agriculture.

That was before the war and prices were normal under normal conditions. The war came that fall. Conditions became abnormal, but a good season for grass and other feed in 1915 kept the price of butter very close to the average in the winter of 1915-16. The high price of cheese had some effect upon it, but not enough to cause complaint on the part of the consumer. Then 1916 came and with it the worst season for the dairy farmer the greater portion of Canada ever experienced, little grass in summer and less feed for winter. Prices had to go up. Besides, 150,000 cases of butter were exported to Britain, whereas in the last few years very little if any had been sent out of the country. Abnormal conditions on the farm causing a short supply and the gradual all-round price increase because of the war could not but be reflected in the price of butter, and butter went up. Think a minute: What does anyone buy that has not advanced in price since the war began? What in general use is not dearer when scarce? Those interested in the manufacture and sale of oleo saw in this a good opportunity to start the credulous consumer agitating for a butter substitute, and some seem to have swallowed the bait. They claim that it would not injure the dairymen and would at the same time give the consumer something cheaper than butter to spread on his bread. This would appear to be rather a difficult accomplishment. Let us look into the question.

Oleo has given endless trouble to the countries which permit its manufacture and sale in a form which looks like butter. Its sale has been so often associated with fraud and deception that the revenue obtained by taxing it is very likely used up in putting through Acts to control the substitute, paying men to see that Acts are enforced, and regulating the sale in an attempt to put it on a straightforward basis. It is because of this deception and the excellent opportunity the stuff gives for crooked work that we object to it. No one wants to pay for butter and eat a cleverly colored substitute. Few Canadians, we believe, would eat the substitute if it were not colored. There is where the joker turns the trick. Oleo manufacturers in the United States pay ten cents per pound for the right to color their product to make it look like butter, and the consumer pays this ten cents when he buys oleo. Manufacturers claim that they have difficulty in selling it unless it is colored. If the manufacturer could make as big profits without coloring, he would not color

and so save the ten cents per pound, but he makes a higher profit by making it look like butter and the buyer of the grease pays that ten cents, and more, back to the manufacturer for a fraction of a cent's worth of coloring material. This is no guess, for two years ago first grade colored oleo was selling in Chicago for 32 cents per pound at the same time that the same grade of uncolored oleo was selling in Pennsylvania, a state which prohibits the sale of colored oleo, for 18 cents per pound. The manufacturer gained 4 cents per pound by making it look like butter. He encroached upon the butter trade mark "yellow". He would rather pay ten cents per pound for the right to color it than not color it. If oleo were let into this country the Canadian buyer would pay for the color unless our Government prohibited coloring. If oleo were manufactured here it would have to be colored to look like butter, otherwise it would not sell. Fat the color of lard would not be likely to prove a good seller as a top layer for bread and buns. We're afraid the head waiter and boarding-house mistress would have a difficult proposition panning off uncolored oleo as butter. If it comes in, our Government must do something to regulate the sale. The step most likely to be taken would be, as is the case in the United States, make the manufacturer pay a big premium for the privilege to color it. Then the consumer would pay for the coloring matter a good many times over and the masses of people eating in hotels, boarding houses, and restaurants would eat oleo and pay boarding rates for good Canadian dairy and creamery butter. Add ten cents a pound to a product which costs to manufacture from 8 to 15 cents and you pay more for the nice, attractive color than you do for food nutrients. When butter is eaten, the color, being natural, costs little or nothing. Experts tell us that the best grades of oleo are white. There is no doubt about it, the manufacturer adds the color simply to make his product a better seller because it then looks like butter. In European countries there is no fraud or deception and no fight against oleo where coloring is forbidden, where it must be sold in packages differing in shape from those in which butter is sold, where dealers who manufacture or sell it are prohibited from selling butter, and where, also, restaurants, eating houses, stores, etc., using or selling it must advertise that they do. In Great Britain coloring is permitted and we are told that fraudulent sales are frequent. In Denmark the people eat white oleo at a low price and export their good butter to Britain at a high price, but Canadians are not Danes. In this country the Canadian eats the best. All the arguments are against oleo being colored. There is no trouble where all the foregoing regulations are lived up to, but what Canadian manufacturer or shopman will allow a Government to say that if he sells oleo he cannot sell butter, and so on? Five million United States farmers have spent long years in fighting twenty-seven manufacturers of colored oleo with only meagre success.

First grade oleo is mixed with a little butter; second grade is mixed with cream and third grade is churned in whole milk. There you have it. This is the stuff, highly colored, which has given so much trouble to dairy interests across the border. If it were not for the coloring, as previously stated, few would buy it. Coloring deceives; a little butter, cream or whole milk mixed in gives it a butter flavor. The best grade, which is the only grade a Canadian would want at all, would cost to manufacture, coloring rights added, around 25 cents per pound. It commonly sells at a considerable advance on this price to the consumer, or well up to the price of butter in normal times. Sold white it would be cheaper and would not be stealing butter's trade mark.

Now we come to the questions: Can Canada afford to jeopardize the dairying industry in this

# The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

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country forever by permitting this deceptive substitute to come in to tide us over six months until grass comes again for our cows? Can this country afford to incur all the trouble which the manufacture and sale of colored oleo would cause? Would it be a good thing for Canada, producers and consumers? We answer "No" to all three. Let us discuss them.

Some doubt whether the importation of oleo would lower the price of good Canadian butter very much. If it did there would be fewer cows kept or less butter produced because the producer is not getting too big a price for butter in comparison with the price of other dairy products, and considering the cost of production. He would either turn his milk into other channels or would sell his cows.

If he eventually had to get rid of the cows this would mean smaller production and consequently higher prices for some other necessities. No country can be depleted of live stock and maintain a high standard of production over a long period of years. The three Western Provinces must be considered. They are just turning from exclusive wheat growing to mixed farming. Butter making and general dairying are going forward in Alberta, Manitoba and Saskatchewan. The effect of oleo coming in would undoubtedly check the dairy industry in these Provinces. Farmers would hesitate before making radical changes from wheat to cows with a prospect of oleo going into the settler's shack and into every restaurant in the West. Cows mean fertility and bigger crops to the West. The fertile prairie is not inexhaustible. The good dairy cow is the most economical producer of human food on the farm, and she feeds the land as well. If she goes, the demand for beef will not be increased so Canada will lose just that much fertility, and loss of fertility means higher-priced food for the consumer.

Regulating the sale of the substitute has caused more trouble in the United States than the regulation of sale of any other one product. All countries permitting its manufacture or sale have had to legislate to control coloring. Time and again it has been sold as dairy butter to the detriment of dairying and the loss of the consumer. It leaves so many loopholes for deception that to properly regulate its manufacture and sale would be work for an army of officials whose

salaries and expenses would eat up the revenue which might accrue through its limited use. The people would pay an indirect tax, but no less direct because labelled "indirect." Once it got a foothold the powers behind it would see to it that it always remained.

There are arguments for it. It is cheaper now. It is said to be wholesome. But what consumer would take it in preference to good butter if he knew it? Who wants to pay ten cents or more for coloring in every pound? Who would like to run the risk of higher prices for other necessities if the dairy industry was hard hit? If it doesn't bring down the price of butter, what good is it? If it does, it will eventually injure both producer and consumer. The manufacture and sale of butter, an honest business, is controlled so that the consumer is assured of a good product. The manufacture of oleo cannot be controlled for there are too many chances for the deceiver. For six months' cheaper fat to cover our bread can we afford to wage a hundred years' war on oleo? Could our Government make and enforce a set of laws to prohibit coloring, sale in packages resembling butter, sale in stores where butter is sold, use in hotels, restaurants etc., where butter is sold, sale as butter, etc? Some doubt it. If oleo should be admitted to this country under a war measure, could we ever get rid of it?

These are some questions for those who would permit its free importation. Think them over.

## The Merry Miller.

BY PETER MCARTHUR.

It is really too bad that the high cost of living is causing the public to regard the miller with a bilious eye, for the merry miller is one of the most cheery figures in literature. Poets have celebrated him in some of the finest songs in the language, and at concerts and tea-meetings millers have been seen blushing happily while their praises were being sung. But during the past few years the attitude of the people has changed. If the miller attends a public meeting he is likely to hear "curses, not loud but deep," and his popularity is certainly on the wane. In starting to review the case of the miller I cannot resist quoting Burns.

"Hey the dusty miller,  
And his dusty coat;  
He will win a shilling,  
Or he spend a groat."

Wait a minute! Haven't we the whole cause of the difficulty right in that stanza. Burns saw the same weakness in the miller, that we are complaining of to-day. He was everlastingly after the coy shilling, and he didn't want to spend more than a groat in getting it. While the miller was doing business in a small way his thrift might serve as the subject of a joke, but now that he is in Big Business his thrift seems to have developed into insatiate greed. I am afraid a time has come when we must stop singing pretty songs about the miller and go after him with a club. If Burns were alive to-day he would probably amend his song and ask us to sing something like this:

Hey the dusty miller  
And his dusty coat;  
It would save us millions  
If we could get his goat

Of course, the obvious explanation of the high price of flour is that the millers have formed a combine, but I hesitate to repeat the charge. I have heard it denied so often that out of politeness I am forced to at least let the matter drop. But I cannot help remarking that if the millers are not in a combine they are the most unanimous business men I have ever observed. When the price of wheat goes down they are perfectly unanimous about it, and when the price of flour goes up their unanimity is wonderful. Besides, I cannot help noticing how well they are getting along in spite of the fierce competition they claim to be facing. A short time ago I read the annual reports of several milling companies in the Montreal Journal of Commerce, and I really felt like writing to them and congratulating them on their prosperity. In spite of the fact that they put away vast sums of money in their profit and loss account, and built or bought new elevators and kept their equipment right up to date, they couldn't hide their profits entirely and were forced to declare remarkable dividends. I think one declared a dividend of sixteen per cent. and another gave twenty per cent.; so they do not need to worry even if the price of bread goes up a few cents a loaf. They can afford to buy it. Of course, it must distress some of them to have the public say unkind things about them, but I suspect that most of them are like the miller described in another song that I hear the young people singing. It is really strange how the poets manage to size people up.

"There was a merry miller of the Lowlands I am told  
Who never cared a rap for love, but mickle cared  
for gold.  
O the rusty, dusty miller,  
Mickle cared he for his siller."

I have noticed that when city people try to reason with the millers they are overwhelmed with facts and figures. By exhibiting the capital involved, the high cost of labor, cost of wheat, and such things, the millers never fail to show that they are barely able to wiggle along and that they are really philanthropists. But when the farmers begin to grumble they advance an entirely new line of argument. There are plenty of farmers who still remember the days when they used to take grists to the mill, and paid for the grinding by letting the miller take his toll. They tell me that they used to get forty-two pounds of flour from every bushel after paying the toll, and besides they got the bran and shorts. And the bran they got was worth while. As Bill Nye's farmer remarked: "The brand didn't have all the goodness jerked out of it by this new roller process." Nowadays, if the farmer takes a grist to the mill he must sell his wheat and buy flour, and even with wheat at the present price he seldom gets more than thirty-five pounds for each bushel, and sometimes he gets less. This shows that the present miller gets about seven pounds more flour as his toll than was taken by the old-time miller, and besides, he gets all the bran, shorts and middlings. With offal of this kind selling at over thirty dollars a ton it must mean quite a bit to the modern milling industry. And I suppose right here is where the millers will trot out their talk about overhead charges, cost of labor and all that. Well, when the new style of milling came in it was so economical that it drove the old millers out of business, so the inference is that the new process is cheaper, even though they take an extra seven pounds and all the offal. The millers certainly seem to have a strange hold on us, and I feel like singing to them:

"O miller let me go,  
My mother's making griddle cakes and waits for  
me I know."

And I have no doubt that if I sang that at him the miller would chirp right in and answer with a slight change of the song:

"You must pay another penny, said the miller to the  
maid."

I hear that the Hon. Mr. Crothers intends investigating a few combines in an effort to solve the problem of the high cost of living. It is understood that he is going to start with the canners, but I think that is a mistake. Canned goods are not an absolute necessity. We can do without them if forced to do so. Besides, Mr. Crothers will encounter difficulties, for, if I am not mistaken, there are several prominent members of parliament who are engaged in the canning industry. If the Minister wishes to make an investigation that will be really popular he should give the millers "The once over." Bread is an absolute necessity, though it is becoming a luxury to the poor. I really hope that Mr. Crothers will take this hint, for we want to know the truth about the milling industry. Personally, I do not want to see the miller pushed from his pleasant place in literature and song if he doesn't deserve it. If he is being maligned it is time that we knew it, so that the people can go on singing the dear old songs even if they are hungry. But if the millers are really enriching themselves by taking the bread from the mouths of the poor it is high time that they tasted the fullest measure of public contempt. I hope that Mr. Crothers will look into the matter, and if he does we will chant this little chorus while he is doing it:

Hey the dusty miller  
And his dusty goat  
Get him Mr. Crothers  
And you'll get our vote.

## Nature's Diary.

A. B. KLUGH, M.A.

In the late fall the Screech Owl is more frequently seen and heard than at any other season. During the summer it keeps pretty much to the woods, but in the fall and winter it comes about the habitations of man in its search for mice and house sparrows.

This little owl is the smallest of our common owls in the East, being only ten inches in length. It bears, on the top of its head, two tufts of feathers which are usually referred to as "ears" or "horns". There are two distinct types of coloration in the plumage of this species, known as the gray phase and the red phase. In the former the general aspect is gray, the upper parts being speckled with black and the under parts being whitish, splashed and streaked with black. In the latter phase the general plumage is reddish-brown, the back bearing sharp streaks of black and the under parts being white, tinged with reddish-brown and streaked with black. Some time ago it was believed that the red birds were males and the gray females; but it is now known that this difference in coloration is due to neither sex nor age nor season. Neither is it due to geographical causes in the sense that only the gray or the red phase is found in a certain locality. It is true that a certain phase predominates in a given

locality, and as far as gray phase which J. H. Fleming says rare, usually occurs and then disappears. Through this little matter fact, yet is a rather sweet with a ventriloquist matter of some distinction from whence justifies its name at hand, a decided well acquainted with I ever heard one that its name was that a place is called little no mountain with little less green than named "Park View" it. Then one ever four feet of my fully made up for not heard.

The Screech Owl protection and she instead of being unfortunately offered eater among our being grasshoppers. In the investigation the United States insects destroyed as fifty grasshoppers eighteen June been worms in a third, particularly worth the pests of the aggravating pest destroys a whole year things for the future been the object of was a seedling and of the little ring of of it. Meadow mice are the man Screech Owl, and not often destruct immense amount of barn. An occasional Mole is also taken captures most of the breathing hole as come to the surface birds, but its bird of House Sparrow and dirty pests it farmer.

The nest of the which it lines with from four to six this species in Canada Manitoba, and it allied races.

Now that the many birds are bro their existence was opportunity to st interesting case of summer. A Warbler a yard of one of made frequent visits though it might be unusual occurrence soon found that it and carrying off to very largely composed new nest some hundred

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### Favors

EDITOR "THE FAR

Some land being leaves an opening horse. The light horse but when you want dip down for cash; it demands the high get away from. I company desires to Of course, they are plenty of horses so the company has A 1,350-lb. horse with horse will do more most breeders is t advice is breed the kind of big horse an big-looking horse, flat and clean-boned with a good bread for feed, hasn't the a horse as possible is where the heavy breeders to breed a horse, then back to What breed and wh have ten years her we may breed to the going to say a wo



locality, and as far as my experience has gone it is the gray phase which is most abundant in most localities. J. H. Fleming says that at Toronto the red phase is rare, usually occurring for several years in succession and then disappearing.

Though this little bird is called the Screech Owl it, as a matter of fact, very seldom screeches. Its usual note is a rather sweet, plaintive, tremulo whistle, a whistle with a ventriloquist quality which makes it often a matter of some difficulty to determine the exact direction from whence it comes. Upon rare occasions it justifies its name by screeching in a loud, and if near at hand, a decidedly ear-splitting manner. I had been well acquainted with this species for ten years before I ever heard one screech, and had just about decided that its name was given to it on the same principle that a place is called "Green Mountain" because there is no mountain within many miles and things are a little less green than usual at this point, or a house is named "Park View" because no park is visible from it. Then one evening a Screech Owl alighted within four feet of my head and emitted a screech which fully made up for all the other screeches which I had not heard.

The Screech Owl is a species worthy of the farmer's protection and should be welcomed about the barns instead of being shot at every opportunity, as is unfortunately often the case. It is the greatest insect-eater among our owls the insects most often taken being grasshoppers, crickets, beetles, and cutworms. In the investigations into the food of this species by the United States Biological Survey the number of insects destroyed was shown by the fact that as many as fifty grasshoppers were found in one stomach, eighteen June beetles in another, and thirteen cutworms in a third. The destruction of cut worms is particularly worthy of appreciation, as among all the pests of the farm and garden there is no more aggravating pest than this greasy, gray larva which destroys a whole young plant, full of promise of good things for the future, a young plant which has probably been the object of much care and solicitude since it was a seedling and has just been set out, for the sake of the little ring of tissue which it secures in the felling of it. Meadow mice, White-footed Mice, and House Mice are the mammals most frequently eaten by the Screech Owl, and while the White-footed Mice are not often destructive to crops, the other two do an immense amount of damage to crops in the field and barn. An occasional Chipmunk, Flying Squirrel or Mole is also taken. This species is fond of fish, and captures most of them in winter by watching beside the breathing holes in the ice and seizing such fish as come to the surface. The Screech Owl takes some birds, but its bird diet consists almost exclusively of House Sparrows, and in killing these destructive and dirty pests it is rendering a real service to the farmer.

The nest of the Screech Owl is a hole in a tree, which it lines with feathers, and in which it deposits from four to six round, white eggs. The range of this species in Canada is from the Atlantic Ocean to Manitoba, and it is replaced in the West by closely allied races.

Now that the leaves are off the trees the nests of many birds are brought to view in situations in which their existence was unsuspected, and we have a good opportunity to study bird architecture. A rather interesting case came under my observation this summer. A Warbling Vireo, which had nested within a yard of one of my windows the year previously made frequent visits to the old nest. At first I thought it might be repairing the nest—a decidedly unusual occurrence among most of our birds—but I soon found that it was tearing the old nest to pieces and carrying off the string, of which the nest was very largely composed, to use in the construction of a new nest some hundred yards away.

horse, as I have worked some 1,300-lb. horses that would do as much work as horses weighing 1,700 lbs., but one was a little, big horse and the other was a big coarse-bred brute that had no type or make up. Get the big horse with good blood in his veins and you have something that is always wanted and will bring the price. I have handled horses for 35 years in different parts of Ontario and I have always found the heavy horse in best demand.

AN INTERESTED READER.

Rainy River District, Ont.

### Unsoundness in Various Horse Breeds.

The reports of 10 States in the United State publishing accounts of the unsoundness of their stallion offer an opportunity of a study of the various breed in this respect. In this list no unsoundness is reported in 31 Suffolks, so they are therefore omitted.

Percentage of Each Unsoundness on Basis of Total Specified Unsoundness in Each Breed.

Breed.	Percheron.	Belgian.	French Draft.	Shire.	Clydesdale.
Sidebone.....	33.1	45.1	30.4	27.6	40.0
Bone Spavin.....	9.7	6.1	10.9	6.7	0.0
Ringbone.....	2.7	4.9	6.5	0.0	0.0
Curb.....	1.3	1.2	0.0	0.0	0.0
Thick wind.....	18.7	18.3	13.0	27.6	10.0
Heaves.....	0.0	1.2	0.0	3.5	20.0
Blindness.....	9.0	8.6	19.6	13.8	10.0
Bog spavin.....	8.4	4.9	10.9	6.9	0.0
Thoroughpin.....	0.3	1.2	0.0	0.0	0.0
Springhalt.....	2.0	0.0	2.2	3.5	0.0
Chorea.....	2.0	1.2	0.0	0.0	0.0
Navicular disease	0.3	0.0	0.0	0.0	0.0
Other specified unsoundness.....	12.5	7.3	6.5	10.4	0.0
Actual number of specified unsoundnesses.....	299	82	46	29	102
Number of each breed.....	1,193	2,789	1,540	1,263	782
Per cent. of breed with specified unsoundnesses.....	2.67	2.93	2.92	2.29	1.27

In examining the preceding table one must not regard the percentages between the different breeds on a particular unsoundness as absolutely indicative of which breed is the most liable to that unsoundness, nevertheless, it is some indication of comparative merits in this respect.

The Clydesdale and the Suffolk have been subjected by their breeders to selection towards a common ideal. Apparently this kind of breed building is most effective for the production of animals to withstand service, as there are fewer weaklings in the link of draft power in these two breeds than in all others. According to the table the Clydesdale exhibits weakness at four points, the Shire at seven, the French

Draft at seven, the Belgian at 10, and the Percheron at 11. The main weak points in the Percheron are the feet, the hocks, the wind and the eyes, with a significant deficiency in quality as evidenced by bog spavins and thoroughpins combined.

The Belgian evinces trouble of the same nature, the Shire shows less tendency to puffy joints, while the Clydesdale has a clean bill of health in strength of hocks and quality.

E. M. Wentworth, in the Breeder's Gazette, pertaining to the board report of the 10 different States, says: "If one point stands out clearly here, it is that the fussiness of the Clydesdale breeder in regard to feet, legs and action has its reward. While of the specified unsoundness in the Clydesdale, sidebone is the most common, yet it is really even less frequent in this breed than in any other major breed, only one animal out of every 195 showing it, while its nearest rival, the Shire, shows one out of every 158. This is merely another means of emphasizing the thoroughness with which a general breeder's ideal can improve a breed.

"Perhaps the most significant fact of all is that the real weak spot in all of the draft breeds is the foot. If a draft breed is to become unsound the chances are from one out of 2.5 to one out of 4 that the foot will go first, and sidebones be produced. The next most vulnerable point is the wind, when all breeds are considered, but the chances range from one out of three to one out of eight. After that the eyes seem weakest, the probability being from one out of five to one out of 12.

"It seems difficult to understand why the heavy horse, whose foot never receives more than two-thirds the jar which the racer's foot gets, fails so signally at this point. That it is not related to breed peculiarity in shape is evidenced by its frequency in each breed, nor does texture of the horny wall seem to be related to it. One can appreciate the difficulties in the wind, the thick wind of the continental breeds and the Shire doubtless being related to overfatness, while the heaves of the Clydesdale may be related to its less capacious paunch, and its greater activity which might produce pressure on the lung nerves with the resultant paralysis. The blindness apparently is more or less sporadic. No blindness due to recurrent ophthalmia (moon-blindness) is included, hence one may consider the blindness to be the result of hereditary causes more or less independent of the other conditions of the breed or body.

"It is easy enough for any one who is a breed partisan to find food for his partisanship in the figures that have appeared in this article, but two things stand out pre-eminently, even to the impartial observer, immense popularity of the Percheron in the leading horse producing state of America and the remarkable efficiency of the Scotch method of horse breeding, which has produced the Clydesdale, a breed so free of unsoundness and so durable in quality. Furthermore, every evidence should demand further inquiry into the Suffolks."

This breed comparison in unsoundness does not indicate as to which may or may not be the best draft horse, but in it is more or less comparison in the efficiency of underpinning of the relative breeds in which the Clydesdale shows superiority, conforming to Clydesdale claims. If a similar analysis could have been made concerning conformation of tops, perhaps quite a reversal of merits would have been observed.

## THE HORSE.

### Favors the Heavy Horse.

EDITOR "THE FARMER'S ADVOCATE":

Some land being more easily worked than others leaves an opening for discussion on the light and heavy horse. The light horse may be all right in some places, but when you want to buy a heavy team you must dip down for cash; also, when you have one for sale it demands the high price. These are facts we can't get away from. Right in this settlement, a large company desires to buy horses for lumbering purposes. Of course, they want the heavy horse. Now there are plenty of horses for sale, good chunks but too light, so the company must go elsewhere for their horses. A 1,350-lb. horse will do a lot of work but a 1,700-lb. horse will do more and last longer. The trouble with most breeders is they do not consider quality. My advice is breed the big horse, but breed the right kind of big horse and not the long-legged, long-backed, big-looking horse, but the big, thick, short-coupled, flat and clean-boned horse, thick through the heart with a good bread basket. A horse that hasn't room for feed, hasn't the staying power. I breed for as large a horse as possible without crossing breeds. Crossing is where the heavy horse falls down. I have known breeders to breed a Clydesdale mare to a Percheron horse, then back to a Clydesdale, then to a light horse. What breed and what kind of horse will such a breeder have ten years hence? If they are not scrubs then we may breed to the cheapest horse we find. I am not going to say a word against the 1,300 or 1,400-lb.



A Well-reared Foal and Its Dam.

## LIVE STOCK.

### Recipes for Pickling Beef.

Please publish a good recipe for pickling beef.

M. A. C.

Ans.—The tastes of different people vary somewhat with regard to meats. The amount of salt or sugar they may use in curing beef or pork depends considerably upon their individual likings. We are presenting three different recipes, but in the main points they are very similar. The first one reproduced here has been recommended for some time, and is quite reliable, particularly so for summer when it is more difficult to keep meat properly.

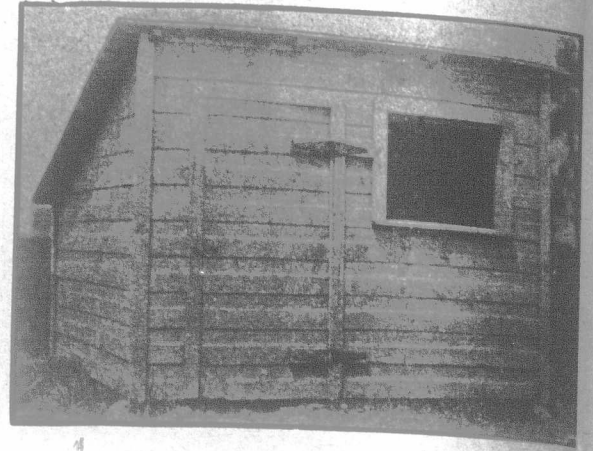
For 50 pounds of meat take 2 gallons of water, 4 pounds of salt, 2 pounds of brown sugar, and 1 ounce of saltpetre. Boil this for ten minutes, then skim well, remove from the fire and allow it to stand until cold. Put the pieces of meat in a cask, cover with the brine, weight the meat under, cover the top and set in a cool, dark place. If the brine becomes sour, drain it off, boil, skim well and pour back on the meat when cool. Attention should be given that the brine keeps sweet, and that the meat does not get too "soggy."

Another recipe for corned beef, is as follows: Take 8 pounds of salt for each 100 pounds of meat; put a layer of salt in the bottom of the barrel, then sprinkle salt on each piece of meat and a layer of salt between each two layers and a thick layer on top of the whole pack. After standing 12 hours, add for

each 100 pounds of meat a solution of 4 pounds of sugar, 2 ounces baking soda, and 4 ounces saltpetre in a gallon of water. Enough water is added to cover all the meat, which is weighed down.

Still another recipe, which varies slightly in detail from the two already given, follows: To each gallon of water add 1½ pounds salt, ½ pound sugar, ½ ounce saltpetre, and ½ ounce potash. Let these be boiled together until all the dirt from the sugar rises to the top and is skimmed off. When cold pour it over the meat. The beef must be well covered with the pickle and before putting it down it is well to sprinkle it very lightly with saltpetre, which removes all the surface blood, etc., leaving the meat fresh and clean.

In curing beef in this way, there are several points which should be kept in mind. Tight barrels or casks are quite satisfactory, but earthen crocks, when large enough, are more suitable, since they can be very thoroughly scalded from time to time. After butchering, the meat should be allowed to remain in a cool place for a couple of days before being put in the pickle. Some of the recipes given do not mention boiling the brine before application to the meat. It is wise to do this at any time, and particularly so in summer. Sugar and salt always contain particles of dirt which rise to the top and can be skimmed off when the brine is boiled. The preservative is purified in this way and we believe it is good practice to boil the pickle at all times. Watch the meat to see that it is well covered with brine and that the latter has not become sour. When such a condition exists, take it off, boil it and return it to the meat.



A Rectangular Colony House.

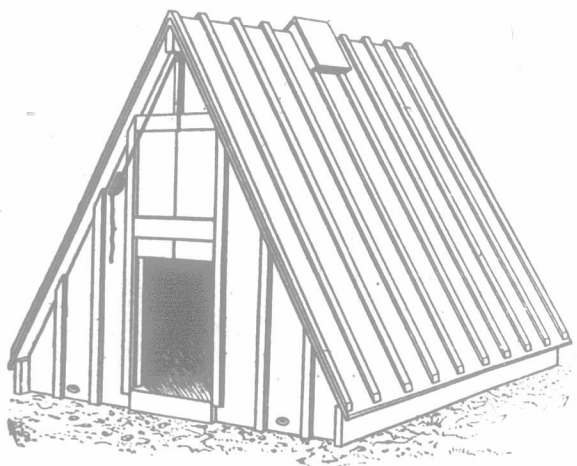
Scotia Agricultural College for exercising bulls which has resulted in good crops of strong calves. Several bulls, of course, must be maintained there, and they are housed in a long building, partitioned off into box stalls of only moderate size. At the feed manger is a large stanchion into which the bull is driven when required for use. This makes it easy to attach the staff. The stalls connect with paddocks, about ten to twelve feet in width, which are built only wide enough that the bulls can turn round in them conveniently. They are between fifty and seventy-five feet long. The animals walk backward and forward in these paddocks, and more actively do they exercise when bulls are in the adjoining run-ways. Where more than one bull is kept, this is a very satisfactory method of exercising.

## Housing Breeding Stock.

There have been many wonderful animals produced under conditions that would now be considered neither comfortable nor sanitary; however, they were reared in spite of, rather than on account of the lack of opportunity to breathe pure air, or enjoy the light of day in their cellar-like stables. Ailments are now more widespread than formerly. Contagious diseases lurk about ready to destroy individuals of the herd, or impair their breeding qualities. The consuming public does not care for meat from infected animals, or milk from tuberculous cows. While stock could be subjected to unfavorable circumstances in the past, they will not permit it now and still give satisfactory results. A stockman cannot get the best out of a poorly housed and ill-kept herd, no more than a fruit grower can produce clean apples without spraying. As time goes by the live-stock industry is being confronted by new obstacles and hemmed in by new laws. We shall be obliged to pay more attention to our breeding stock in order to produce those rugged, strong-constituted sires and dams that stamp upon their progeny the character and qualities they must possess to make them profitable. Too often light and ventilation are sacrificed to obtain warmth. If stockmen who have adhered to this principle would reverse their methods they would not be so far astray. Generally speaking, it is not the cold that necessitates housing at all in most parts of Canada, but a changeable atmosphere, and in some provinces too much moisture. Nature has provided the animals we breed with a protective covering that increases as the occasion demands. If this is allowed to develop in length and density as the winter becomes colder, the animal with shelter from the storms and dry quarters free from drafts will do better than the stock housed in warm, dingy stables, where they are obliged to breathe foul air over and over again. The strength and vigor of our herds and flocks as well as the corresponding freedom from disease, depend upon exercise, pure air and plenty of nourishing feed. The large, airy, well-lighted, and well-ventilated building is, of course, the ideal accommodation for live stock, but there are many farmers who have neither such a building, nor the capital to invest in one. When we have the proper conception of what constitutes suitable housing for breeding stock we can then proceed to erect the same in accordance with the means at hand.

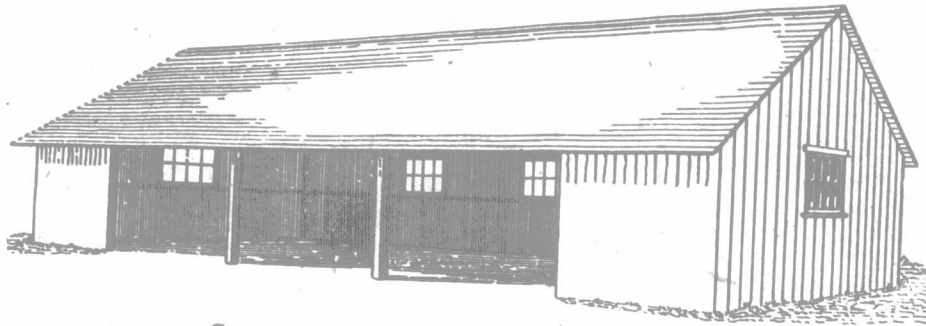
### Quarters for Breeding Cattle.

So much has been written in these columns of late regarding light and ventilation in the stable that we



The A-shaped Colony House.

shall not elaborate on it at this time. The principles involved in housing breeding stock must first be understood, and then each one will strive to introduce those ideas into his management of the herd so far as possible. Everything considered, the convenient stable, with a good circulation of air and well lighted, is the most suitable place to winter cattle. But such accommodation for the young stock is not indispensable. Often a shed can be brought into service for the use of young heifers. If facing south the doors may remain open except on occasions of storm or high winds, but with a dry floor and plenty of bedding the young stuff will produce a coat of hair that will protect them against moderately low tempera-



Suggestion for an Inexpensive Sheep Shed.

From Sheep Husbandry in Canada.

tures. More feed may be required under such conditions, but they will make good use of it in developing strong constitutions and rugged frames. Needless to say, they should be allowed the run of a yard wherein to exercise. Even when quartered in stables young heifers should be out as much as possible, but since they do not produce as much hair when stabled they will not endure such low temperatures when outside as will cattle accustomed to out-door conditions. Breeding cows, not in milk, will thrive in more open buildings than the ordinary stable. As a general thing the females of the herd are allowed insufficient exercise in winter. The box stalls are usually occupied by calves, and the pregnant cow or heifer is turned loose only when showing signs of approaching parturition. The writer has many times been impressed by the sappy, rugged young things that breeders have led out of the most unexpected places. We should get away from the idea that it is necessary to expend hundreds of dollars on fixing up stables for cattle of the beef breeds. It is well to lay out a moderate amount, if the money is available, for it lessens the labor required to tend them, and, as a general thing, they are kept cleaner. Whether we spend dollars or spend cents, the ends to keep in view are sunlight, pure air and dryness. Fortify against drafts; clean the glass or enlarge the windows; make provisions for a steady exchange of air, and provide a suitable place for the cattle to stand or lie down. This done, the main features in housing beef cattle have been attended to.

What has been written with regard to females holds true with bulls. Many weak calves are due to pampered, weakened sires that were too closely confined from calfhood up. Make them exercise, get them out in the pure air, even if it is sometimes cool, and feed them well. This method will insure lusty bulls, if their breeding will permit it at all. The mature stock bull requires exercise if a good crop of strong calves are to be looked for. The head of the herd should spend much of the time in a paddock where he has access to adequate shelter. The writer recently observed the system in vogue at the Nova

### Shelters for Sheep.

Sheepmen of limited experience have, in the past, provided expensive barns in which to house their flocks. Besides being costly, these buildings are not suitable unless considerable attention is paid to the requirements of a good sheep shelter. Sunlight, cool fresh air, freedom from drafts, absence of dampness and good feeding conveniences are the chief features of a building for housing sheep in winter. Where the flock is large the outlay of some money will be necessary to shelter them properly and provide for accommodation at lambing time, but it is folly to put up expensive sheep barns on the ordinary farm where only a small flock is kept as one branch of the live-

stock. Sheep enjoy the pure, out-door air, and anyone is inviting disaster who will confine them in close, shut-in stables or buildings. They should be kept dry, however, and be given an opportunity to get out of winds or drafts. This done, they will fare very well under conditions that obtain almost any place in Canada. An ordinary sized ewe should be provided with at least twelve square feet of floor space in any house or building. Large ewes

should have as much as eighteen square feet each. The shed illustrated in these columns is inexpensive compared with the accommodation it renders, and can be made quite serviceable as a sheep-pen. With the large doors facing the south, the sheep will have protection against most any kind of weather, and yet they will not be shut in nor obliged to suffer from lack of pure air. Often such a building is provided with doors in such a way that the lower half and the upper half open and close separately. When it is necessary to keep the sheep housed the upper half of the door can be left open and the lower half closed.

Anyone acquainted with sheep will realize at once the necessity of large doors through which they may enter their pens. When sheep are frightened they will crowd when going in or out of a door in such a way as to injure some of the flock. It is well indeed to have large spacious doors to serve this purpose.

Sometimes it is necessary to have warmer quarters for early born lambs than has been described. It is the lamb, however, not the ewe that requires these conditions. Unless the lambs are coming early, cool quarters are more suitable for sheep, and, in fact, in Southwestern Ontario last winter we saw one flock of sheep running loose on 100 acres which were provided with practically no shelter whatever. The lambs came late in the spring after the grass had started slightly, and no trouble was experienced at yearning time. It is well, too, considering the high price of wool, to provide convenient racks in which to feed the rough fodder, so as to keep the fleeces clean and free from chaff.

### Houses for Hogs.

It would be but an easy matter to improve on the type of piggeries seen generally throughout the country. In the majority of cases we would attempt to improve upon them with even a cheaper building. For convenience in feeding and tending the swine it is necessary to have a large and well-planned building, but if one can provide the labor and has suitable grounds we believe a modification of the colony-house plan to be preferable. There is danger of

disease spread among pigs. It is not unusual for it to be present unless it be prevented. It is not unusual for it to be present at this time, to extend his attention for pigs in colony houses. Two houses will in common on 2 x 6-inch 8 feet, and the rectangular building 3 feet 6 inches front; the frame walled with double roofing. It is a man can cover day and a half feature to be exercising pigs during placed some troughs, the distance each sow will occupy winter, and the barnyard dry, well-ventilated colony house housing capacity.

### Relative Value in

Could you go to a side of beef name of the cow and the price around, or a top beef dressing a side of beef in-mate the value of Nipissing District.

Butchers have which they add to details. The are large, but "straight cuts" the various sizes are taken. Some higher quality are in greatest disposed of, while certain cuts so retail price of The retail buyer pays a uniform and must then dispose of the the highest price next. The most hind quarters, naturally it retail is not difficult is worth per pound endeavoring to different cuts of

It takes a 700 pounds. The what the average weight would be depending on the dress out a much meat than other cised in buying bullock may dress meat, but the 58 to 61 per cent high a percentage weight in the same, provided. Therefore, the weight in the diagram are known to the are represented takes in Nos. 2, 8; flank, 9; plate. Whether the carcass finished, the percentage weight will be approximately 26, plate. Figuring on this 700 pounds will ribs, 81 pounds pounds of plate, and suet. The weight carcass weight to each other centage basis as trade the "straight" nated more expensive Number 2, round 4 and 5, loin end brisket. The main the division is quarters. Accord is left on a hind two ribs attached of the illustration the various bones A is known as

disease spreading in a building where there are many pigs. It is not a suitable place for very young pigs, and it is hard to keep it dry and well ventilated unless it be particularly well planned and constructed. It is not our intention to criticize the large piggery at this time, but we believe that if anyone desires to extend his business and provide more accommodation for pigs it would be a good plan to consider the colony house, especially for breeding stock. The two houses illustrated in these columns are the types in common use. One is the A-shaped house, built on 2 x 6-inch runners. Its floor space is 8 feet by 8 feet, and the length of the roof is the same. The rectangular building is 8 feet by 10 feet on the ground; 3 feet 6 inches high at the back, and 7 feet high in front; the framework is 2 by 4-inch studding, and it is walled with drop siding and covered with commercial roofing. It is built on 4-inch by 4-inch runners. A man can construct a house of this kind in about a day and a half at a cost of \$20.00. Exercise is one feature to be considered in the management of breeding pigs during winter. If these colony houses be placed some distance from the feeding quarters or troughs, the hogs will be obliged to travel considerable distance each day to secure their feed. Several sows will occupy one of these buildings during the winter, and they can be provided with the run of the barnyard or some other suitable place. The dry, well-ventilated piggery is all right, but the colony house is a cheap method of enlarging the housing capacity.

**Relative Prices for Different Cuts in a Carcass of Beef.**

Could you publish in your columns a diagram of a side of beef, showing the different cuts with the name of the cuts, the approximate weight of each and the price per pound, to average 14 cents all around, or a total of \$49.00 for the half-carcass of a beef dressing 700 lbs? A farmer can often sell a side of beef in small lots, but the difficulty is to estimate the value of each cut.

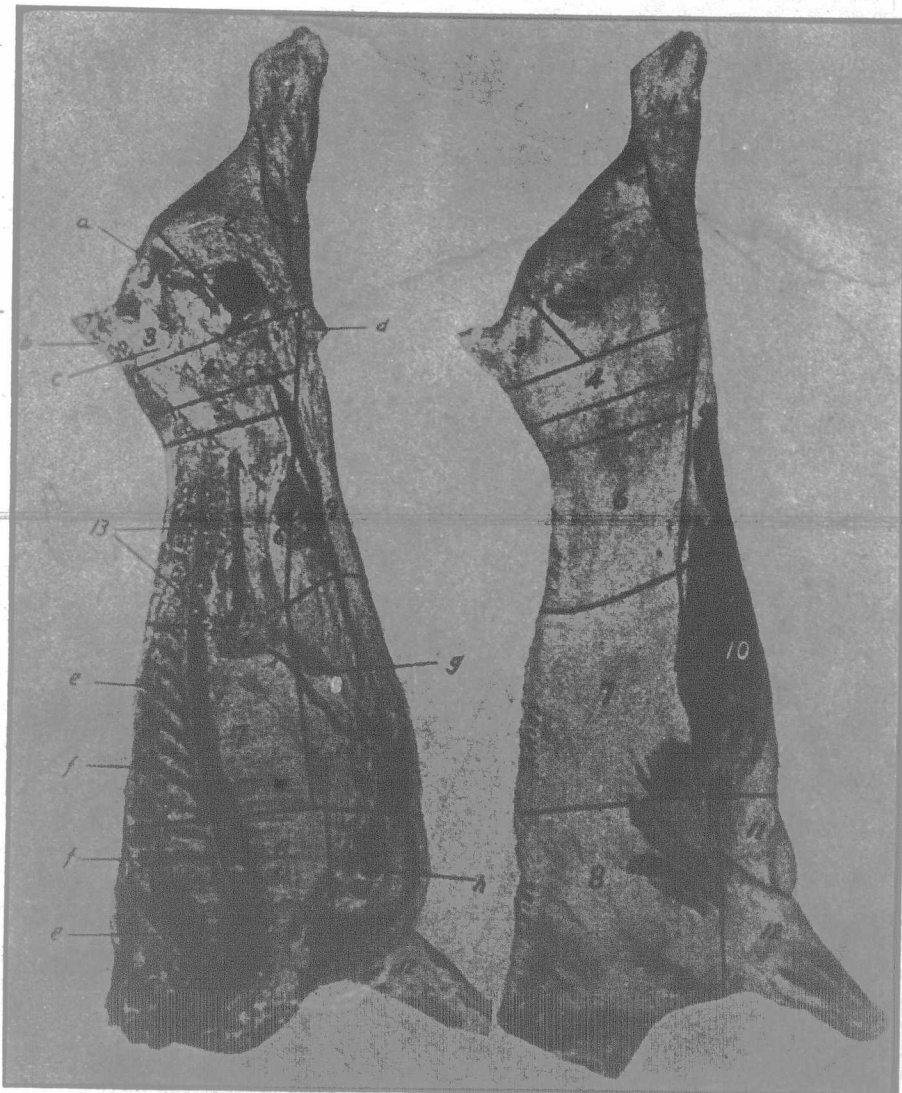
Nipissing Dist. F. P.

Butchers have a few general principles to which they adhere when cutting up a side of beef, but each has his own peculiar methods when it comes to details. The cuts shown in the following diagram are large, but they show the general divisions or "straight cuts" as known to the trade, and from these the various small cuts, as retailed to the customer are taken. Some portions of the carcass furnish higher quality meat than others, consequently they are in greatest demand. However, all parts must be disposed of, which necessitates lowering the price of certain cuts so that people will buy. To do this the retail price of the best cuts has to be fairly high. The retail butcher who does his own slaughtering pays a uniform price for all parts of the carcass, and must then work out a scale of prices so as to dispose of the whole at a profit. The loin brings the highest price, with the round and rib roast coming next. The most expensive cuts are taken from the hind quarters. There is little meat on the shank, naturally it retails at a lower price than other parts. It is not difficult to figure out what a quarter of beef is worth per pound, but complications arise when endeavoring to arrive at an equitable price for the different cuts of the quarter.

It takes a heavy, well-finished animal to dress 700 pounds. This weight is considerably in excess of what the average butcher handles. In fact, the live weight would be about 1,200 pounds, or slightly over, depending on the form and finish of the animal. Some dress out a much higher percentage of marketable meat than others. Consequently, care must be exercised in buying live weight. An exceptionally good bullock may dress from 64 to 65 per cent. marketable meat, but the ordinary run would probably be from 58 to 61 per cent. A small animal will dress out as high a percentage as a large one, and the percentage weight in the different cuts will be approximately the same, provided the two animals are finished. Therefore, the weight of the various cuts as designated in the diagram can be figured out. The following are known to the trade as the "straight cuts," and are represented in the diagram by figures. Round, takes in Nos. 2 and 3; loin, 4, 5 and 6; rib, 7; chuck, 8; flank, 9; plate, 10 and 11; shank, 1 and 12; suet, 13. Whether the carcass is large or small, so long as it is finished, the percentage of "straight cuts" to carcass weight will be approximately, loin 17, rib 9, round 23, chuck 26, plate 13, flank 4, shank 4, and suet 4. Figuring on this basis one side of a carcass weighing 700 pounds will give 59 pounds of loin, 32 pounds of ribs, 81 pounds of round, 91 pounds of chuck, 45 pounds of plate, and 14 pounds each of flank, shank and suet. The weight of cuts in a five or six-hundred-pound carcass would bear about the same relationship to each other. It can be figured on the percentage basis as previously given. For the retail trade the "straight cuts" are divided and are designated more explicitly in the diagram as follows: Number 2, round; 3, rump; 5 and 6, flat-bone loin; 4 and 5, loin end; 6, pin-bone loin; 10, navel; 11, brisket. The mark between Nos. 6 and 7 is where the division is made between the front and hind quarters. According to the diagram only one rib is left on a hind quarter, but some butchers leave two ribs attached to it. The diagram on the left side of the illustration shows the front of a half-carcass, and the various bones are pointed out by means of letters. A is known as the aitch-bone; B, the rump-bone;

C, the crotch; D, the cod; E, the chine-bone; F represents what is termed "the buttons;" G, the skirt, and H, the breast-bone. By use of the diagram and explanations one should have little difficulty in cutting up a carcass of beef in a similar manner as it is cut by the butcher.

A problem arises when it comes to allowing an equitable price to each of the different cuts. The ruling price at the present time is high, but it varies according to the market demands. In order to sell all parts of the carcass at an average of 14 cents per pound, the various cuts, according to the present retail market, would bring about the following prices: loin, 19½ cents per pound; rib, 17 cents; round, 17 cents; chuck, 12 cents; plate, 11 cents; flank, 10 cents; shank, 6 cents, and suet 10 cents. This does not figure out exactly 14 cents a pound, but on the whole it is within a dollar of it on the half carcass.



**Different Cuts in a Side of Beef.**  
From Bull. 147, University of Illinois.

In some districts farmers kill one or two beefs during the winter and dispose of the carcass by the quarter to their neighbors. All are not in a position to handle a quarter of an animal dressing around 600 pounds but many would gladly purchase a portion of a quarter. The quarters may be divided according to the accompanying diagram, but the price per pound given in this article for each cut is based on the whole carcass averaging 14 cents per pound. If the price is increased or decreased the value per pound of the various cuts would necessarily have to be changed.

**Finished Steers by the Trainload from one Ontario Shipping Point.**

At this season of the year one can see carload after carload and trainload after trainload of finished bullocks leaving Ailsa Craig, a small town in Middlesex County, Ontario, for Toronto, Buffalo, and New York. These steers were wintered roughly during the season of 1915-16 and since May 10 they have been grazing on some of the unexcelled grass land for which the Townships of East and West Williams and Adelaide are noted. Locally, Ailsa Craig is known to be the second largest shipping point in Canada, being second only to Calgary, Alberta, which bills out thousands of head of range cattle. Every year approximately 400 carloads are moved from this small Ontario town. Those destined for Buffalo and New York are billed out at 25,000 pounds per car, and for Toronto at 30,000 pounds. In the average load there are about twenty bullocks, and at 1,300 pounds, which is only a fair steer, each car should carry in the vicinity of 26,000 pounds. At this rate the 400 carloads which leave annually convey to market 5,200 tons of finished bullocks. Anyone, by figuring at market prices, can see at once that, in a season such as this, upwards of one million dollars will come back to the producers and feeders of these cattle. Whether Ailsa Craig is the second largest shipping point in Canada or far from it, the truth is manifest that the lands in those townships named are doing their bit to a truly wonderful extent

in feeding the consuming population without any depletion of fertility. During the week ending October 28, 1916, 34 carloads were billed out and 45 cars were ordered for last week. Last year in one day 34 carloads left this station making two trainloads of fattened cattle beasts. About 4,000 finished cattle will be lifted at Ailsa Craig during the latter part of October and the early part of November. It should be understood also that the output from Adelaide Township goes largely from Kerwood and Strathroy, while Ailsa Craig serves, as a shipping point, the greater part of East and West Williams and a small part of McGillivray Township. Thus it will be seen that the number of cattle referred to represents only a part of the many herds that all summer long feed in those districts mentioned, and which are exceptionally well endowed with unsurpassed grazing land. All the cattle finished in those parts are not bred and reared there. Some are picked up in other sections of the county and adjoining counties to be grassed in this district where many hundred-acre farms are maintained for that purpose alone.

**The System in Vogue.**

There is a system peculiar to that locality, which makes the grazing method profitable and practicable. Some dealers, and cattle feeders as well, have several grass farms. They are able to rent others, so they have feed during the summer for 100 to 500 head of cattle. From 20 to 25 head to 100 acres is the general rule. They do not overstock the farms, but if the grass begins to be short in July or August some of the cattle are sold or moved to other fields. It is considered false economy to overstock a grass farm and reduce the gains of steers.

It is at once apparent that all these cattle will not be wintered by the man who grasses them. Here is where the farmer with 100 or 150 acres, following mixed farming methods, assists. The extensive grass-land owners or renters buy up feeding steers in the fall and board them out for the winter. Different farmers will take all the way from 2 to 20 or 25 steers and board them from five to six months. The price paid for this accommodation varies from \$10 to \$15 according to the quality of the feed. As a general thing, the ration consists of straw, silage and perhaps some hay; or hay, straw and clover chaff. Grain is not commonly fed under this arrangement except in some cases where the farmer is paid so much per pound for the gain laid on. The steers as a rule hold their own through the winter, but sometimes they lose in weight when the rations are not sufficient in quantity or nourishment. A cattle dealer considers himself exceedingly fortunate when he secures this feeding accommodation where silage is a part of the diet. It keeps the stock loose and thrifty and in excellent condition to do well on the grass when turned out. Some of those interested in this method of wintering their cattle put out as many as 200 head, sometimes more, with the farmers. They buy and place their steers in the fall as they obtain the feed, and lift them again in the spring when the grass is ready, which is usually about May 10.

Many farmers have ample stores for their stock throughout the winter, but are short of grass. They, too, sell in the spring to those having large grazing areas, so by the fall the majority of the finished cattle in the district are in the hands of a comparative few. This facilitates selling, for the packing houses send their buyers to the spot, direct, to secure these steers, which are considered among the best grass-fed bullocks that reach the market. They are sold over the scales at the local shipping point at so much per cwt., with a three per cent. shrinkage discount. New York has been taking a large percentage of these steers this fall, but a goodly number are going to a packing house in Toronto.

R. J. Robinson, who has a large acreage of grass land also winters nearly 100 head in his own stables. His methods of feeding may be of interest this season to those who intend to grass their cattle next year rather than finish them in the feed lot. His system is to feed the cattle largely on straw and silage until about February 1, when they begin to receive grain and some hay. Up to that time they are given what straw they desire and what silage they can consume without physicing. From the first of February on, the grain ration is not heavy. It is increased gradually

until about 3 pounds of cottonseed meal and a couple of quarts of bran make up the grain ration. These two feeds have been used quite freely in the past, but Mr. Robinson has not yet made up his mind as to what feeds he will use this winter, considering the unsettled condition of the market and the exceedingly high prices prevailing. Towards spring this feed is made a little heavier by the addition of some oat and barley chop. Last spring chopped wheat and oats were fed. These cattle are superior of course to those wintered more roughly by the farmers, and they are usually the first to be sold off grass. Last year the first load averaged 1,480 pounds each and sold for 10 cents per pound.

#### Good Grass the Reason.

Good cattle are bred and reared in the territory referred to and in the adjoining districts but we feel safe in saying that the fundamental reason for this

exceptional cattle trade is to be found in the grass lands. There are 100-acre farms that never had a plow in them and yet are producing pasture grasses in great abundance. Other farms have not been broken up for 40 years, but they still maintain from 22 to 25 full grown steers which gain from 200 to 300 pounds during the summer, according to the type and quality of the bullock. That district enjoyed frequent showers throughout September with the result that men who have been in the business for many years claim that they never saw the fall feed better than it has been this season. During the last six weeks the writer has had an opportunity to observe conditions as far east as the Atlantic seaboard, and after seeing the results of the lack of moisture in other parts, the abundance of fall feed in the area mentioned presented a very pleasing appearance. Of course they are not always so favored with seasonable showers, but it is natural grazing land upon which cattle are sure to make good gains.

## The Feeding Problem in the Maritime Provinces.

During the latter part of September the writer visited the Nova Scotia Agricultural College, at Truro, and learned from the Principal, Professor M. Cumming, a little of what was being done to foster the live-stock industry of the Maritime Provinces, and more particularly of Nova Scotia. Space will not permit of a detailed description of the animals maintained on the College farm, but suffice it to say that the big, typey, strong-constituted Holsteins impressed us most in the cattle department, but the Ayrshires, at the head of which herd is a son of Jean Armour, were a good lot. The immense Yorkshire stock boar and his get were outstanding in size, type and quality and should constitute a good example to the farmers of that Province as well as a source of breeding stock to improve their herds of swine. However, it is the important question of feed to develop and maintain live stock that influences to a very large extent the numbers and quality of the herds or flocks as well as their production. This matter is receiving considerable attention in the East and it was the factor which Professor Cumming dwelt upon largely when discussing the condition of the industry in the Maritime Provinces. Relative to this he said: "We have been giving too much thought to the winter feeding of our cows and young stock and not enough to summer feeding. It used to be our policy on this farm to put our milking cows on our home pasture and to summer our young and dry stock on a rented farm. There was not enough good pasture for either. Now we own an abandoned farm of some one hundred acres, which we purchased for \$1,400, and which we use as permanent pasture for our dry cows and young stuff. Moreover we aim to apply from two to four tons of basic slag to the fields of this farm every year and so keep it in good heart. The young cattle when put into winter quarters will do better on hay and roots, or silage, than will young stock from a poor pasture on a good grain ration. It was the importance of grass that impressed me most in my several visits to the Old Country breeders, but we are only beginning to get down to business in this matter ourselves. Personally, I regard the pasture problem as the crucial question in the live stock development of the Province. We have better facilities for pasture than they enjoy farther inland where there is less moisture, but little is being done to develop this natural advantage.

The pasture referred to in the Principal's remarks was visited. Even though the autumn had been very dry, feed was good and the cattle were exceedingly thrifty. Young stuff of the beef breeds were fat and the dairy-bred heifers were thrifty and well covered with natural fleshing. Besides the excellent results that accrue from good pastures, the economy of this plan is an attractive feature. At six per cent. the interest on the value of the property would amount to \$84.00. Add to this the taxes, the annual expense of some fencing, and about three or four tons of slag or other fertilizer, and the cost of summering from 22 to 25 head of cattle is moderate indeed. Furthermore, one gets better results when the pasture is farmed and cared for properly than from a permanent pasture that receives no attention except some fencing in the spring.

#### Farm the Pasture.

Good results accrue from farming the pasture in accordance with the demands made upon it. Professor Cumming's advice is to sow grain and seed down, but do not cut hay. In this way the land is kept in good heart which reduces subsequent expense. An ordinary seeding of clover and timothy and perhaps a little white clover gives best results, but some red top grass is often used when the land is a bit wet. "We find," he said, "when we seed this way, and by using some manure or slag do not allow the soil to run out, that bluegrass, white clover and other fine pasture grasses gradually become established. As a general thing we do not get results from expensive mixtures. In fact, I am convinced that, within reasonable limits, the pasture problem is more one of the condition of the ground than of the seeds put into it. This is my opinion and it is based on personal observation."

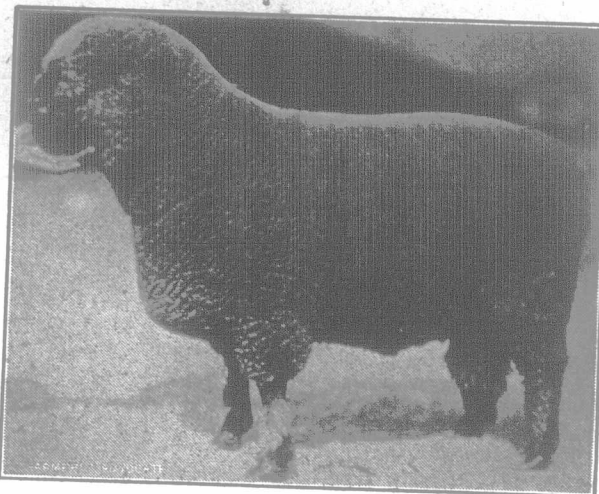
#### White Turnips for Fall Feed.

One method of conserving feed on the College farm is to sow white, or soft turnips for use in the fall,

when the pasture is often short and it is wise to conserve the hay and grain for winter feeding. White turnips of the Sutton's Early Sheepfold variety are sown on towards the end of June. Early in September they are ready for use and they are fed well on into the month of November. The writer saw these turnips in the mangers and when the cattle came from the pasture in the evening they devoured them greedily. In a year such as the present has been, with good crops of hay but short afterfeed and poor pasture, they are able on the farm at Truro to conserve their rough fodder, into which many farmers have been obliged to make heavy inroads. Last year these turnips yielded as high as 40 tons per acre, but they will not do so well this fall. Through October when the nights get colder and the grass stops growing, the cattle begin to look for other feed. Then the white turnips are pulled and fed, tops and all. They take the place of hay and grain and furnish a succulent feed when it is needed.

#### O. P. V. Silage.

Much credit is due to J. M. Trueman, Professor of Agriculture and Farm Superintendent, for the introduction of a crop that will make satisfactory silage for the Maritime Provinces, and at the same time require less labor than corn in its production. This crop is a combination of oats, peas and vetches, and is known as the O. P. V. mixture. Taking the average



A Toronto Champion Shropshire.

First prize aged Shropshire ram and champion at Toronto, 1916, for John R. Kelsey, Woodville, Ont.

for a number of years, it has produced more dry matter per acre than corn with less than half the labor cost. This year, however, owing to climatic conditions, it will fall slightly below corn in dry matter per acre but less work has been involved. The proportions of the O. P. V. mixture and varieties grown at Truro are: 2½ bushels of banner oats, ¾ bushel of golden vine peas, and ¼ bushel of annual vetch per acre. When the oats are just beginning to turn, the crop is cut with an ordinary mower. It is forked at once on to the wagons and run through the silage cutter into the silo. In 1914, 65 tons of this mixture were produced on 5.7 acres of land. Last year three acres produced 29 tons, but owing to some parts of the field being wet, the greater part of it grew on 2 acres. The average production per acre is around 10 tons and it has been proven that cattle will eat the silage made from it with considerable relish.

While this mixture does not require so much fertilizer as turnips, corn, or potatoes, yet it requires more than is ordinarily given the grain crop. No farmer should attempt to grow it unless he puts his land in first-class condition and it is the first crop to be planted in the spring. This year at Truro it was seeded about May 1 and cut on August 10. The O. P. V. mixture is gaining ground in the Maritime Provinces where the corn often fails to yield as well as in some other districts. The latter crop, however, is being grown more extensively than in former years and silos are becoming common. Longfellow, at this Institution,

has been found to be the best of the flints, and flints, while superior in quality, are almost up to, if not equal, the dents in yield per acre.

#### Prepare for Next Season.

Owing to the dry autumn in the East, Professor Cumming was warning the farmers to prepare for a considerable acreage of hoed crop and green feed in case the hay should be short next season. Good yields of hay were harvested this year and last, but both falls previous to these crops saw a more liberal precipitation. If the lack of moisture this season should reduce next year's yield of hay the farmers will do well to have plenty of roots, corn, or the O. P. V. mixture to take its place.

We have mentioned here only a few features that impressed us upon our visit to the Nova Scotia Agricultural College. One thing is certain that if stockmen in Eastern Canada would imitate Old Country breeders in the rearing of sappy, lusty, young stock, they should improve their pasture and produce more succulent feed. In many sections feeders depend upon their hay, grain and silage to develop their stock and put on flesh, when, if the pastures were kept up, the greater part of this could be accomplished on grass at a great reduction in cost. Professor Cumming's methods and recommendations regarding permanent pastures in the Maritime Provinces, where the facilities are so good, are deserving of special consideration.

## THE FARM.

### Sandy on High Prices.

EDITOR "THE FARMER'S ADVOCATE":

I took a little trip intae toon one night last week tae get a few things the auld wumman wis needin' in her business, an' to dae a wee bit o' buyin' for mysel' on the side. "Mind ye dinna' forget that black spool o' thread, number 40, Sandy," says Jean as I wis drivin' oot o' the yard. "Na," says I, "I'll no' forget it, nor the white spool, number 30, nor the box o' hair-pins, nor the yard o' elastic, nor the stove-polish, nor the lamp-wick. An' ye were wantin' a couple o' cans o' salmon, too, weren't ye, besides the soda biscuits, an' the cream-o'-tartar, an' the—" "Hoot," interrupts Jean, "gae along wi' ye, ye'll remember them a' I guess." "Weel," says I, "I ought to gin practice is guid for anything. I'm gettin' tae be a regular walkin' Eaton's catalogue, I'm that filled up wi' groceries an' dry goods an' so on."

An' it's a caution a' the things a mon has tae buy ilka time he gae tae toon; high prices or no, it's juist the same. The city chap has an idea that about a' the farmer is daein' these times is rakin' in the dollars wi' one hand an' pittin' them awa' in a box wi' the ither. But he'd find oot different gin he ever got bitten by the "back-to-the-land" bug. The only way ye can get oot o' buyin' things, that I ken aboot, is tae follow Robinson Crusoe's example an' get wrecked on a desert island, or maybe to join the army. An' mony's the thing the farmer has tae get in the way o' machinery an' so on that the city mon kens naething aboot. We're gettin' sae highly civilized the noo that we've got to hae a lot o' things that oor forefathers never dreamt o' in their worst night mares. It keeps the money in circulation a' richt, ye can say that for it, an' gin a chap kened that there wad be na showery weather along towards the end o' his career it might be juist as weel tae avoid gettin' intae the savin' habit, but as it is, it's no' a bad plan tae get somethin' past ye, gin ye can dae it wi' a fair amount o' wark an' guid management. 'Hooever, as ma uncle used tae say when he'd get cornered up in an argument, 'that's another matter.' What I started tae tell ye aboot wis that trip intae toon. The first place I went tae wis the baker's, as the auld wumman has na' been feeling ower weel for a week past, an' didna dae ony cookin'. "It's juist twelve cents for the loaf," says the baker, "but it canna' stay at that lang. They say flour is gaein' tae be ten dollars a barrel next week, sae bread will have tae keep it company." The next mon I called on wis the tinsmith. When I had got what stove-pipes an' ither things I wanted I asked him the price. "Weel," says he, "tae tell ye the honest truth I'm ashamed tae say it, but what ye've got will cost ye three dollars. I ken ye could have got it for a dollar an' a half this time last year, but that's the price to-day." "Oh," I replied, "that's no' muckle tae pay for a' that guid tin. Are ye sure ye're no' cheatin' yersel' noo?" says I, "I got a bill frae a mon the ither day an' when I went tae pay it he said he'd have tae mak' me oot a new bill, as prices had gone up while I wis comin'." After this I thought I'd better gae to the harness-makers an' get a hame-strap I'd been needin' for a week. When I had bought the strap, wi' no remarks made on either side about the price, the harness-maker says tae me, "Wait a minute, Sandy, I've something here I want tae show ye. Talk aboot high prices, says he, "juist look at this, will ye?" an' he handed me a box o' linen thread that harness-makers use in their business. "When I started here," he went on, "a box like that cost me one dollar an' fifteen cents, an', as ye see for yersel', that box is marked four dollars an' eighty cents. Can you beat it?" says he. "No," says I, "but I'm juist on ma way tae Jim McCuaig's store. It's likely he can."

When I got tae the store I started tae look for the list I used tae tak' wi' me, until I thought o'

the resolve I'd made tae carry na more memorandums, as Jean calls them. They say it's bad for the memory tae write ilka thing doon on a piece o' paper, sae I hae given it up. Ye hae a better excuse too, gin ye gang hame wi'oot some o' the things ye were tauld tae get. Weel, when I had bought the white spool an' the black spool an' as mony o' the ither things as I could call tae mind, wi' the clerk sayin' "what next?" an', "is there onything else?" an' daein' his best tae mak' me forget somethin', I says tae him, "I think that's all, an' noo I'll juist be hauldin' ma twa hands up ower ma heid, like this, an' you'll gang through ma pockets an' tak' what I've got, an' say naething tae me about high prices. Is it a bargain?" says I. But he didna' seem tae think I wis in earnest an' juist lauched an' said, "Gie me what ye hae, Mr. Fraser, an' the rest can gae in the books," says he. An' sae we settled it, though it's pairt o' ma religion tae keep bookkeepers frae gettin' ower weel acquainted wi' ma name an' family affairs an' sae on. But when I got hame that nicht an' wis sittin' wi' ma feet up on the wood-box, takin' a wee smoke before gaein' tae bed, I says tae Jean, says I, "I dinna' ken what's comin' ower the warld at all. Gin things keep on this way we'll soon hear na mair o' religion or politics or even the war. Gae where ye like it's naething but the high cost o' living in general, an' the high price o' this or that in particular. Folks are even giving up talking about the weather these days," says I.

"Weel," says Jean, laying doon the sock she wis knitting for the soldiers, (I'm buyin' ma ain, an' they're forty cents a pair the noo) "I'm thinkin' Sandy," she says, that as lang as a mon's pocket remains sic a tender spot as it is ye'll hear him squeal ilka time onything touches it. As ye hae noticed, it mak's him forget baith the war an' the weather."

"I guess you're richt," I answered, "but what I'd like tae ken is, what's the reason for all these high prices. I've read o' a dozen different things that were takin' a hand in boostin' the market, an' I'm no' sure that I ken the real cause yet."

"Weel, I'll tell ye what it is," says Jean, an' gin it werena' sae close tae yer nose ye'd see it for yersel'. The war an' some ither things hae somethin' to dae wi' it indirectly, ye nicht say, but the one plain reason that prices are gettin' higher is that there's no eneuch men in the warld producing things, considering the number there is tae use these things up. The machine is oot o' balance, that's a'." "Weel, gin that's the disease," says I, "what's the cure?"

"The thing will hae tae rin its course," says she. "It will cure itself through time. All the commissions an' law-makers in the country will never lower the price o' wheat a cent until they buy a farm an' start raisin' it. But when it comes tae a case o' starve or get back tae the land, maybe we'll see the crowd headin' in an opposite direction from what they are the noo, an' when that day comes we can look for lower prices an' easier livin'." I'm thinkin' there's enough loafers in the cities o' this country tae help oot quite a bit gin we could get them on tae the farms an' warkin' for a mon that kened the business till they were ready tae start oot for themselfs. They're talkin' about conscription for the army. Why don't they try it for the land?"

"Weel," says I, "it nicht wark a'richt. Ye can never tell till ye try. But I'm thinkin' there'd be a few deserters after the first twa or three weeks. Hooever, I'm gaein' tae bed," says I, "an' gin I dream o' ony plan better than yer ain for gettin' the country oot o' the hole it's in, I'll let ye know in the mornin'. Gude nicht," says I.

SANDY FRASER.

### Plant Trees About the Home.

EDITOR "THE FARMER'S ADVOCATE":

I chanced to-day to pick up a copy of Keats' poems and opened the book at "Endymion" the opening lines of which are:

A thing of beauty is a joy forever,  
Its loveliness increases, it will never  
Pass into nothingness etc.

I have often before read those beautiful lines written almost a century ago by the youthful English poet; but this time I received a different impression—a deeper one, doubtless due to the fact, that it is a glorious October day in the country, my surroundings are beautiful to the eye, the trees are taking on their rich autumnal tints and all Nature seems in tune; and as I pondered over the poet's words this thought came to me, what a thing of beauty is an Ontario farm at all seasons of the year! (I am partial to Ontario, being a native of this province.) The country is full of natural scenery; still if we have the taste we have it in our power to further improve along those lines by beautifying our homes as much as possible and by so doing we shall most assuredly reap the reward—the refining influence of beauty which must permeate our whole being. We farmers have such wonderful opportunities compared to our town and city brethren; for we have scope. I have in mind a gentleman of my acquaintance who is a lover of nature; we have only to pass his home to know it. This extra beauty was not always; it cost him hard labor. Possibly about twenty-five or thirty years ago he planted on either side of the King's Highway, the length of his farm, about one hundred maples which now are large trees, and a source of joy to those who pass by. His home was further beautified by the maples, the grounds, which are quite extensive, being studded here and there with them, also other

trees and ornamental shrubs. It is now a regular park, and simplicity reigns supreme as no set rules were followed in the ornamenting, the individual using his own taste, and it seems to me by so doing the beauty is more enhanced because the scenery looks natural rather than artificial. It has been a source of true pleasure and enjoyment to the inmates of the home as well as to others. As Keats states "The trees around the temple soon grow dear as the temple itself," so are the trees a part of this home.

This is a description of one of our many, many, pretty homes; still, perhaps there are some readers who have never yet conceived the idea of improving their home surroundings by the planting of trees, shrubs etc. Horticulture and agriculture go hand in hand to a certain extent; and to be really successful in the latter I think a fair knowledge of the former is required. Perhaps some may say there is no money in such work; but I am fully convinced that beautiful home surroundings and a beautiful frontage add very much to the value of our home, just as the value of our farm is increased hundreds of dollars by good roads. But even if there were no money, are we not amply repaid for our work by the genuine pleasure in watching the growth of the tree which later gives us its shade and consequent comfort and happiness. Take for instance a hot summer day, compare the house standing alone scorching in the sun, no shade trees near, with the home with its avenues of delight, its shaded driveways, cooling breezes, and singing birds Surely the latter is the place to rest soul and body, and is, as the poet says, a joy forever.

Leeds County, Ont. L. C.

### The Sugar Beet and its Uses.

In districts where sugar beets are grown the harvesting of this important crop has been proceeding for several weeks. Many fields are already cleared but piles of beets are still to be seen in some, and, owing to scarcity of labor the roots are still in the ground in certain localities. Owing to the tuber growing into the ground and having a heavy top, it is not easily injured by frost, therefore harvesting can be delayed until late in the season. Carloads of beets are now being received at the factories every day and will continue to arrive until the weather becomes frosty. The marketing of the crop is more or less dependent on the railroads, as it practically all has to be shipped. Some growers have experienced difficulty in moving the crop and this is increased for those living some distance from the railroad, especially if wet weather sets in making the roads bad. For this reason a large bulk of the crop is grown on farms situated handy to a shipping point. Where beets can be grown successfully they prove to be a profitable crop. Growers have estimated that their total expense for growing and harvesting seldom exceeds thirty dollars an acre, and with an average crop of nine tons, at the prices paid the last year or two, the net profit is greater than for most crops grown on the farm. In an indirect way sugar beets are also a profitable crop to raise as the frequent cultivation through the summer cleans the land and leaves it in good condition for succeeding crops. The roots going deep into the soil also tends to loosen the subsoil.

According to analysis sugar is made up largely of water, carbon-di-oxide and sunshine, combined by the plant into the substance as we know it. These do not all come from the soil, consequently, if the by-products from the sugar-beet factories are used on the

farm, a minimum amount of fertility is removed from the land.

Of late years great improvement has been made in the method of purifying beet juices in the factories and also in increasing the percentage of sugar in the beet by selection. When first grown the sugar content was low but now it averages around fifteen per cent. and from twenty to twenty-five per cent. has been reached in some countries. With the increase in the sugar content the yield has also been improved. To a certain extent the character of soil influences the quantity of sugar in the beet.

Although the crop may be more profitable than others grown, the labor and shipping problems are no doubt factors which tend to keep the acreage from increasing more rapidly than it does. In 1914 it was estimated that 13,000 acres of sugar beets were cultivated in Canada, which equalled 29,000,000 pounds of refined sugar. According to the Agricultural War Book, 17,000 acres of beets were grown in 1915, and, while an increase in acreage was anticipated this year, the exact figures are not to hand. An increase of thirty per cent. in 1915 over 1914 conveys some idea of the rapid growth of the industry in Canada. With the present price of sugar no doubt the acreage will continue to increase rapidly. In order to supply the home demand for this product the acreage sown to beets must increase to twenty times that of 1915.

Sugar-beet factories in Canada, of which there are three in number, handle the crop in from seventy-five to one hundred days. Thus it will be seen that the season of operation is short, but, during that time the factories run day and night. Employment is given to a large number of men during the fall and early winter months.

As previously mentioned, beets grown on certain soils contain higher quantities of sugar than those grown on other soils, but as payment is made on the percentage of sugar basis, the grower receives full value for his crop. This has a tendency to encourage the growing of high-testing beets. It would not be fair for all the growers to receive the same price per ton, as large yield of coarse beets may not contain the quantity of sugar equal to a smaller yield of high-testing beets.

As the root grows entirely in the ground it is rather difficult to harvest. It is almost impossible to pull it, consequently some implement must be used to loosen the soil. The ordinary plow serves the purpose very nicely. Some growers have been known to run the land-side of the plow close to the roots and plow the dirt away from the rows, while others run the share underneath the roots, thus plowing the beets up. They are then pulled and topped with a knife and thrown in piles to await the wagons to take them to the shipping point. The harvesting is really divided into four operations, namely, lifting, pulling, topping and hauling. The point at which to remove the top is the lowest leaf scar. It is claimed that the part of the beet that grows above ground is not desired by sugar factories as it contains a low sugar content and a high percentage of minerals, which tends to crystallize sugar in the process of manufacture.

The beet pulp, a by-product of the beet factory, contains fairly high feeding value and good results have been obtained from feeding it to dairy cattle and growing stock. The stockman living near the factory can buy and draw away the fresh pulp, and in fact some have it shipped a considerable distance, but there is a danger of it heating and souring. Most factories dry the pulp, in which form it is placed on the market in large quantities. According to Michigan



Moving the Sugar-Beet Crop.

State Bulletin 234, the dry matter and digestible material in one pound is almost equal to that of cornmeal, the main difference being that cornmeal is a little higher in carbohydrates thus giving it a wider nutritive value. In certain feeding experiments, beet pulp was found to be a fairly cheap form of fodder. In one experiment beet pulp produced gain cheaper than cornmeal with growing animals, but with those in condition for finishing, cornmeal made the most rapid gain. Where it can be easily secured it might profitably be used to help out the feeding problem this winter. Molasses, another by-product of the factory, is used for feeding. It contains a large amount of potash salt, which gives it rather a bitter taste and strong purging properties, but when mixed with other feeds it can safely be fed and gives good results. Some

mix the molasses with dry feed others dilute it with water and pour it over the feed. As high as three pounds are fed daily to milk cows, and two pounds have been fed to work horses.

Owing to unavoidable difficulties some growers have been unable to market their crop in the past and have therefore been obliged to feed the raw beets to the stock. Cattle do fairly well on this succulent feed, and it is claimed that beets are highly satisfactory for feeding pigs. Evidently the high sugar content tends to produce fat. The grain ration can be considerably reduced when sugar beets are fed and the quality of the pork is said to be good. Henry's "Feeds and Feeding" gives the results of an experiment of feeding four lots of pigs, averaging 130 pounds, on sugar beets, wet beet pulp, and beet molasses in com-

bination with wheat shorts. The table shows that, while the shorts-fed pigs made a daily gain of 1.7 pounds each, those fed a half allowance of shorts with sugar beets or beet pulp additional gained 1.2 pounds. Six hundred and nine pounds of wet beet pulp, or 396 pounds of sugar beets replaced 100 pounds of wheat shorts. Shorts, beet pulp and beet molasses combined produce nearly as large gains as shorts alone.

The beet tops have a fairly high feeding value and it is estimated that at harvest an acre of sugar beets will yield about four tons of fresh leaves. These tops may be fed fresh, or ensiled, but care must be taken when feeding either fresh or ensiled leaves as they have a tendency to purge the animals. Corn stover, straw or hay should be combined with them.

## Automobiles, Farm Machinery and Farm Motors.

### Winter Worries.

Most of the good weather prophets admit that before we can have Indian Summer we must suffer some inconvenience from a visitation of the snow. If their forecast is to be depended upon, you will shortly find yourself and your car endeavoring to overcome new difficulties. Snow is practically the same as mud or grease, in so far as an automobile is concerned. Should your wheels run into a heavy bank, cut off the power immediately, and determine, with the least possible delay, whether it is practical or not to extricate the machine without trouble. In making your calculations, you must remember that great power is not essential in the majority of cases, because if there is nothing to which the rear wheels can cling, the spinning of them will only result in the digging of holes. If you have decided that it is possible to get back on the road, bear in mind that it is always safest to move the machine as gently as you can in order that every diamond, or knob, or other grasping device, may take hold firmly and steadily. Should this not release the car, place some brush, leaves, pieces of wood or any other available material, in a path before the rear wheels, and endeavor to climb upon this foreign matter with maximum ease. When driving on a snowy road, your safest policy will be to throttle down your machine and keep a steady forward movement in order that the rear wheels may not skid to disadvantage. If the snow has gone and the highways are wet and muddy, you had better purchase chains for your rear wheels in order that skidding may be avoided. This word skidding should be kept constantly in mind. It is nothing more nor less than an attempt of the car to maintain the direction which the momentum desires. If you try to turn sharply at a corner or even upon a road, the weight of the automobile does its utmost to go straight forward, but if the traction is of a slippery indifferent nature, the result is side play that is frequently fraught with danger. Some people who have had bad skidding accidents, have been known to state that they were going very slowly at the time, but their statement does not coincide with the facts, for it is all a question of momentum endeavoring to follow a natural course. If you are going slowly when your car skids, the side play will not carry you far, but if high speed has been maintained the end motion may be continued for a considerable distance, and, in fact, the auto may turn one, or one and a half complete circles.

Chains are a good form of insurance for soft roads, but on hard pavement of any kind, they do not answer the same excellent purpose. In the latter instance you will find them noisy and harsh. If at any time your car becomes imbedded in mud and the wheels only succeed in digging deep holes, you will find a number of courses that may be followed.

Tying ropes around the tires and between the spokes sometimes serves a good purpose, or rags or gunny sacks can also be utilized successfully. In many instances it may be imperative to dig down to some hard bottom and make paths, but before taking such a laborious step, we would suggest the placing of boards or split rails, branches, leaves, etc., in front of the rear tires in order that no unnecessary labor may be incurred. If you find it difficult to shove material close enough to the point of contact of the tires, use a two by four or a fence rail to elevate the rear axle, and if this system fails, get a block of wood and jack up the machine. For those who are compelled to do a great deal of winter driving along roads other than main county highways, an expense account, that includes a hand axe, can be easily justified.

Remember, in any operation to remove a car from a hole, that the motor must not only develop enough power to propel the machine but also to elevate the whole rear portion of the frame and body against the force of gravity created by the hole itself. Sometimes the small assistance that a man or two can render at the spokes of the rear wheels, will give that small amount of immediate energy necessary to extricate one from a difficult situation.

We could put down a long list of winter precautions, but we think it will be sufficient to say to the average sane driver, that in the winter no effort should be made to maintain the excessive speeds of the summer. Those who drive calmly and slowly are seldom embarrassed by skidding, and above everything else, do not take hasty advice from passengers who are not accustomed to motoring and who believe that it is clever to introduce an element of danger. If you are running along a slippery road and someone calls for a sudden turn, do not take this advice but rather slow down the car, reverse the engine, and take your new direction in deliberate fashion and without peril. If your car skids at any time and the rear or front wheels start for the ditch, maintain your presence of mind sufficiently to steer the car head-on or tail-on into the ditch, but never allow it to strike with a slanting motion, as it is in this position that it is most liable to overturn. This advice, of course, is not good where the ditch is extremely steep, but in such a case, no words of caution are of any avail.

In a previous article we revealed the secret of the anti-freeze solutions necessary in all radiators during very cold weather. Before it is absolutely essential to use anything other than water, you will probably experience some trouble on cold days and nights. If, under these circumstances, you must leave your car standing for any length of time, remember that it is always well to cover the radiator with a robe or other warm material, as the engine will then cool down slowly and not require a great amount of effort to start again. In addition, there is fuel economy

in such a move, as the longer you fuss with the motor before it gets under way, the more gas you are consuming without attaining mileage.

Auto.

### Size of Disk to Use.

When disk harrows first came into use the common size was 14 inches in diameter, and this size we still prefer, but the demand seems to be for larger disks, the farmers conceiving the idea that they draw lighter. While this is true, the pulverizing action of the 16-inch is not so good as the 14-inch, the 18-inch even less, and the 20-inch we would not have on a farm. Here's the reason:

The larger the disk the slower it revolves, consequently the pulverizing effect is decreased as the size of the disk is increased. I have noticed 20-inch disks rolling along when the ground was somewhat dry, and simply slicing the soil, raising it up a little and letting it fall back in large clods in exactly the same position it was before the disk passed over it. The process simply made little crevices and actually increased the evaporation of moisture. A 16-inch disk moving at the same rate of speed would revolve faster, therefore pulverize and completely reverse the soil. Don't buy a disk too large in diameter.

### The New Freedom.

No more the Monday morning air  
Transmits the rubadub  
That used to echo everywhere  
From washing board and tub;  
And mother doesn't have to strain  
Till heart and muscles ache,  
Or bravely suffer with the pain  
Of nerves about to break.

No longer are we forced to climb  
From bed before the sun,  
In order that we'll have the time  
To get the washing done.  
So sister gets her beauty sleep,  
And to her great delight  
She has no trouble now to keep  
Her fingers soft and white.

And I have far more time to burn  
Than ever heretofore,  
Because I do not need to turn  
The wringer any more;  
For all these things, you understand,  
We're doing by machine  
Since father bought an engine and  
A tank of gasoline

R. T. STROHM in Gas Review.

## Canada's Young Farmers and Future Leaders.

### Lessons From a Trip Through the Country.

EDITOR "THE FARMER'S ADVOCATE"

It was two years ago last August, we had finished haying and were not particularly busy for a few days when waiting for the grain to ripen, that a favorite uncle called at our place and invited me to go with him on a two-days' motor trip through a certain good agricultural district, where he had business to transact with several prominent farmers. It was an opportunity for an outing which I eagerly seized, and the things I saw revealed to me the possibilities in agriculture and changed my attitude toward farm work. I realized that there were great possibilities in stock raising, growing pure grain, etc., and that farming was a big job requiring the best that was in a man. I saw the effects of using brains in the work, and also witnessed the effect of endeavoring to forge ahead by main strength alone. The farm run by the careless, shiftless man was also to be seen and it conveyed lessons to me.

Probably I am a little ahead of my story. Our farm is located in a district that is considered to be an average agricultural community. The soil is a clay loam, some parts level, other parts rolling. In a favorable season good crops are raised, but an oc-

casional bad season reduces the average. The fact of the matter is, the system of farming followed did not tend to place farmers on "easy street" very quickly. It was a steady grind to make ends meet. For a radius of five miles similar conditions prevailed, and, there being very little money, the people seldom went far from home and reading matter was not plentiful in most homes, consequently we knew little of what was doing in the world. We met people who had a similar narrow outlook on life, therefore improvement was slow. Our forefathers had hewn homes out of the forest and planted and reaped; their children followed the same system of cropping, and now the third generation are endeavoring to wrest a living from the soil by the same methods as were employed by their ancestors. In our small corner we failed to keep in touch with the times and therefore did not advance. Ready cash being scarce, consequently several of the young people had left the farm to seek their fortunes in some other line, thinking that farming was an unprofitable occupation that held out negative opportunities for advancement. I was one who shared these notions with my chums and was planning to leave the old farm the coming winter. The trip through the country which brought me in contact with farmers and farmers' sons, who were doing things, changed my opinion about farming and led me to see that farming was an enterprise

requiring thought and business ability in order that the soil be made to yield of its hidden wealth. Two short days sufficed to change me from a tired, discontented boy, who thought all farm work was drudgery, to one who realized that, even in the country, things do not happen by chance but that there is a cause for every effect. From that day I commenced to investigate the why and wherefore of things done on the farm. Every day brings new problems and the more I study agriculture, the bigger and broader the subject becomes.

We left home early in the morning and for the first fifteen or twenty miles I paid little attention to the crops or locality through which we were travelling, but was enjoying the ride. My uncle had occasion to stop at several places, and while waiting for him to transact his business I became interested in what people were doing. At one place a boy about my own age was busily engaged in a patch of potatoes near the house. There were no weeds visible, and the vines were green and thrifty. As they looked much healthier than ours at home, I enquired the method of handling the crop. To my surprise this boy enjoyed his work; it did not appear like drudgery to him hoeing potatoes, and he could advance reasons why the crop was good. In fact, such preparations were made before planting as would almost ensure a crop. In the first place the seed tubers had

selected from hills the year been taken in used to having The cause beg thought of se special hills for after the tab cut and pl parations. I manured and put in good ti sets having tw two ounces. I small-sets did young plant a The sets were when growth given to conse stood killing serving moistu to see new reas

How do yo and healthy? get a start, an with Bordeaux the reply. "F late growth th the mixture th more often. F spraying serve new friend kep of potatoes an per acre. Thi make further he was ready up a new pha remainder of the tually being had at least p and, as we spe in the old farm before him, litt

For several noticed that i more, the ra distance it wo When enquiri happened to c and it was th had been mad use of a split- the spring and on the concess the roads in fro from forming, road. The poe by farmers who to the public g saw an opportu the home farm usefulness was some of its wo

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In the pastur looking cows were pure-bred a pure-bred bul saved from the the herd had between 9,000 a testing around cow's milk was kept, so that F doing at the p occasionally so and note what Uncle enquired was forced to s records but in year I would ha year-old bull w us his pedigree and sire's dam his good charact number of sleel orchard. They had at home.

Nothing un of the afternoo where everythin looked well, fen

selected from the most productive and healthiest hills the year before. For several years back care had been taken in the selection of the seed. We were not used to having our potato crop so uniform and thrifty. The cause began to dawn upon me. We had never thought of selecting a certain type of tuber from special hills for seed. Ours were taken from the bin after the table had been supplied for the winter. We cut and planted them without any special soil preparations. I found out that a clover stubble had been manured and plowed the previous fall and the soil put in good tilth in the spring. Tubers were cut in sets having two "eyes", or more and weighing about two ounces. It was explained that they had found small sets did not contain sufficient food to give the young plant a start if adverse conditions prevailed. The sets were planted about three inches deep, and when growth commenced, frequent cultivation was given to conserve moisture and kill weeds. I understood killing weeds, but what was meant by conserving moisture? This was explained and I began to see new reasons for cultivation.

How do you account for the vines being so green and healthy?" I asked. "Oh, we never let the bugs get a start, and we have found that it pays to spray with Bordeaux mixture to guard against blight," was the reply. "Furthermore, this spray seems to stimulate growth and increase the crop. We usually apply the mixture three times in a season and sometimes more often. Poison is added to kill bugs, and so one spraying serves two purposes." I learned that my new friend kept track of what it cost to grow a crop of potatoes and knew at the end of the year the profit per acre. This was news to me and I was about to make further enquiries when my uncle called that he was ready to leave. The half hour had opened up a new phase of farming to me and for the remainder of the trip new methods and ideas were continually being brought to my attention. The scales had at least partially been removed from my eyes, and, as we sped along I began to see new possibilities in the old farm that had given father, and his father before him, little more than a fair living.

For several miles we traversed clay roads and noticed that in places, probably for a half-mile or more, the road would be good and then for some distance it would be rough and full of deep ruts. When enquiring the way to a certain place, my uncle happened to comment on the condition of the roads and it was then we found out that the good roads had been made and kept that way by a continued use of a split-log drag. It was pointed out that in the spring and fall, and after heavy rains, a few farmers on the concession would take their teams and drag the roads in front of their places, thus preventing ruts from forming, and always keeping a crown on the road. The poor roads were in front of places owned by farmers who did not believe in devoting their time to the public good without receiving pay. I at once saw an opportunity for doing some work in front of the home farm. I had heard about the drag, but its usefulness was not impressed upon me until I saw some of its work.

We dined at the next place we called, and, after dinner, we all took a walk back over the farm to see the crops and stock. Some of the crops looked no better than our own, but my attention was arrested by a field of oats that was superior to anything I had previously seen in length of straw, plumpness of grain, and freedom from smut. I learned that the seed of eight of the ten acres had been treated with formalin for smut. It certainly was a demonstration in favor of treating the seed. There were eight acres with barely a trace of smut, but the grain on the remaining two acres was at least one-third smutted. If anything, the home crop was even worse than these two acres, and I began to see another way of increasing the value of our crops at slight expense. We were shown the results from carefully selected seed and our host informed us that since he had commenced saving seed from the best parts of the field and then thoroughly grading the seed before sowing, by running it through the fanning mill several times, he had increased the average yield considerably, but he purposed hand-selecting enough heads to sow a small plot and save his seed from it. In this way he was positive production could further be increased.

In the pasture was a herd of twelve exceptionally fine looking cows and I immediately surmised that they were pure-breds, but no, all but three were grades but a pure-bred bull had been used for years, and heifers saved from the most productive cows. In this way the herd had been graded up and were averaging between 9,000 and 10,000 pounds of milk in a year, testing around 3.8 per cent. butter fat. Yes, every cow's milk was weighed at each milking and records kept, so that he knew exactly what every cow was doing at the pail. In the winter, feed was weighed occasionally so as to arrive at the feed cost per cow, and note what relation it bore to the milk yield. Uncle enquired if our cows gave much milk, but I was forced to say "I don't know," as we didn't keep records but in my mind I was resolving that next year I would have some idea. In a paddock a three-year-old bull was running loose and the owner gave us his pedigree and told the records made by his dam and sire's dam. He was a splendid individual and his good characters were stamped on his progeny. A number of sleek, thrifty calves were running in the orchard. They were much superior to anything we had at home.

Nothing unusual occurred during the remainder of the afternoon. We passed some fine looking farms where everything was kept in good condition; stock looked well, fences were in good repair, gates swinging

on hinges, yards tidy, and weeds cut. Other farms looked the reverse and stamped the owner as slovenly, careless or indifferent. The night was spent in town and the next day our trip was resumed. Again we saw the well-cared for farm homes, with the houses surrounded by nice lawns with shrubs and flowers showing their gorgeous colors. On some holdings the barns were painted, and, to my mind, it increased the value of the property. At one place we called during the forenoon there was a herd of pure-bred Shorthorn cattle that was being fitted for one of the large shows. The attendant gave me considerable information about feeding, caring for and training cattle that were to enter strong competition. I discovered that this was a business in itself. While I had seen stock on exhibition, I had never paid much attention to it, but when the many important details that must be considered were explained, I wished we had pure-bred stock at home. I saw that there was more money in them than in ordinary grade cattle and one could not help but take more interest in looking after them.

One other important point was gained at noon that day when I watched the horses being fed. I liked horses and it was my work to look after them, at home, but it was always difficult to keep them fat. There was no restriction made on either the oat bin or hay mow, consequently I fed liberally. But here was a man whose horses were fat and sleek, who only fed a mere handful of hay and no more grain than I did. Then it was explained to me that a horse's stomach being small he could not digest to best advantage large quantities of roughage. The morning and noon feed of hay should be small, but should be increased at night. He claimed that it was wasting hay to feed too much. I was inclined to doubt his theory, but resolved to try it out on our own horses and see what effect it would have.

We were back home by sunset, after having spent two very enjoyable days. I had seen more in these two days of what was being done outside of our neighborhood than I ever had previous to this, and our own methods seemed out-of-date as compared with what progressive farmers were doing. I realized that these men used their heads as well as their hands in doing their work. Brains are as essential to successful farm-

stables and around the show-ring. I learned a good deal about type, etc., and was intensely interested when representatives of the herd I had seen in August were led into the ring to be compared with individuals from other herds.

I find that it is necessary to get away from the farm occasionally and see what others are doing. It is easy to be self-satisfied and get in a rut if one continually remains at home with his work. Everytime I meet other farmers, stockmen and business men, I get ideas because I am now looking for them.

Our farm and surroundings look more attractive than they did two years ago. By growing crops our soil is best suited for, sowing good seed and looking after the stock better, our returns are increasing and we believe will continue to increase. I am not working now because I am compelled to, but because I like the work and find it interesting. The longing to leave the farm and go to the city has left me. Farming is a big job and requires head work as well as hand work to make a success of it. Two years ago I was discontented, now I am happy with the stock, crops, etc. The motor trip, with the opportunity of learning what others were doing, changed my idea of rural life and prevented me from quitting the farm and going on the pay-roll of some firm in the city, thus tending to decrease the production of food and to increase the cost of living. True, life is not all sunshine on the farm, but before deciding definitely to leave it, view the work from every angle. If it isn't giving you a living find out why. It is very often the man, not the farm, who is at fault.

Wellington Co.

FARMER'S SON.

## THE DAIRY.

### Poor Versus Good Sire.

Although a scrub bull is still to be found at the head of some herds, his place is gradually being taken by the sire of good individuality and whose ancestors have made profitable returns at the pail. The sire lacking type, conformation and quality and of nondescript breeding has been the means of keeping many dairymen struggling along to make ends meet. One poor cow doesn't do the herd much permanent harm. She can be sold, and at most there will only be two or three of her progeny in the producing ranks, and their value will depend largely on the quality of their sire. With a bull it is different. If he is a poor one, he is an extravagant animal to keep on the farm. He is worse than worthless, as his poor qualities are transmitted to his offspring, and one bull may be the sire of thirty or more heifers in a year. Supposing one dairyman has ten heifers a year for three years, the length of time a bull is usually kept on the average farm, from a poor bull, what does it mean to him? In fact, the loss cannot be estimated, but it would be more than the price of two good bulls. The sooner dairymen realize that the poor as well as the good characters of the sire are transmitted to the offspring, the better it will be for the dairy industry. It is often necessary to spend money to make money, and there are few places where money will return as large interest as when invested in the right stamp of a bull. A poor bull in the herd shows plainly the thoughtlessness of the breeder. It is a case of holding the penny so close to the eye that the dollar farther off cannot be seen. It is foolishness rather than economy to buy a common or scrub bull because he costs less money than one with character and breeding.

Cows used to give little more than enough milk to feed their calves, and the records that are being attained to-day are the result of using good bulls. High prices are being paid for sires that have the proper backing. Are the animals worth the money? When we read of the progeny of such sires giving 30,000 pounds of milk and 1,200 pounds of butter-fat in one lactation period, and then think of these dams transmitting the producing qualities to their sons and daughters, the reply must be in the affirmative. The results do not all occur in one year, or in one generation, but each succeeding generation shows an improvement. On the other hand, if a bull is deficient in quality or is from a poor producer, those characteristics are passed on and the breeder loses in the end. The right kind of a sire may cost \$200, while a scrub may be bought for \$75. Here is a saving of \$125. It is three years before the heifers commence producing, and the interest at six per cent. on the investment of the poor bull will bring his cost up to about \$89.32. The well-bred bull will have cost \$237.50. The care and feed for the three years is about equal. Consider bull calves from the good bull of no more value than from the



Golden Fern's Noble.

Grand champion Jersey bull at National Dairy Show, Springfield, Mass.

ing as they are to carrying on any other business. In the morning father and I discussed several problems which had presented themselves to me and while he did not agree with all my ideas he was willing that I should work out some of my plans. That was two years ago. I have not revolutionized the farm work, or made a model farm out of the old place, but I have made some changes and have discovered that our soil is as productive as any if given a chance and that pure-bred stock will live on our farm as well as on others.

I immediately began keeping records of our cows, and the results surprised the whole family. Most of the cows we owned two years ago have been sold. The scales pointed out the boarders our eyes were unable to see. They were sold to the butcher and others put in their places, two of which are pure-breds. The bull we were using, no longer suited, so we purchased one whose ancestors had proven to be valuable animals. The price almost shocked father, and brought forth uncomplimentary remarks from the neighbors, but his progeny are superior to anything we ever had on the place, and when his heifers freshen we will have a greater idea of his real worth. A record herd cannot be built up in a year, but we have made a start.

I reduced the hay ration for the horses more than half and in less than a month I noticed an improvement in their condition, without increasing the grain, and, if anything, they were working harder than earlier in the season. In reality I had been wasting a lot of hay. I also discovered that some cows pay for heavier feeding than others. In fact, where I previously saw drudgery, I now see something of interest at every turn.

The trip increased my thirst for information about farming, and that fall I attended the Canadian National Exhibition. While I still took a delight in going through the mid-way, more time was spent in the

scrub. It is with the heifers that results are noticed. It is common for heifers from grade cows and the right kind of bull to give two or three pounds more milk at a milking than their dams. If the milking period is for 300 days this means an increase of about 1,200 pounds of milk, which at \$2.00 per hundred amounts to \$24.00 for each heifer the first year. If there are only ten heifers, the price of the bull and interest on investment has been met. Only one year is here considered; the same results will hold for the next two years and longer if the bull is kept. Then, if bred right, the heifers will drop calves that will surpass their own records, and so the results of using a good sire continue. What of the breeder who claimed he could not afford to pay the extra \$125 for a bull, showing desirable individuality and backed by producing ancestors. His herd increased as fast as his neighbor's, but the heifers gave less milk if anything than their dams. He is now face to face with low milk yields and increased cost of feed, labor, etc. There are many dairymen in this position to-day, due largely to their inability to realize the importance of securing a well-bred sire to place at the head of their herds. Breeding counts in a grade herd as much as in a pure-bred herd. The milk yields of many grade herds equal, and, in some instances, surpass that of pure-breds, but it is the result of selection and breeding.

Before purchasing the next sire, consider the effect his blood will have on the heifers that will be in the producing ranks three or four years from now.

The first cost of good bulls is more than for scrubs, but in the end they are the cheapest. The improved sire is a good investment in any dairy herd, and, in fact, with all classes of stock.

The individuality of the animal must be considered. He should conform to breed type, be well proportioned and have a strong constitution. He should show strong, masculine character and have quality. The pedigree will give the line of breeding. It is not enough that his dam and sire's dam are heavy producers of milk and butter-fat; something should be learned of the ancestors for several generations back. If the blood of high producers does not flow in the veins of the sire, he cannot transmit the qualities to his progeny. Consider the effect good breeding will have on the heifers rather than concentrate all the thought on how much a well-bred bull costs more than a scrub. A poor bull stamps his qualities on his offspring as indelibly as does the good one. When buying the next bull consider your herd five and ten years from now, rather than accept an inferior animal just because he is cheap. True, a bull with a fine pedigree may leave poor stock, and one with no pedigree, fairly good stock, but the risk is in favor of the former. There are many good sires on the market, and by using them on the average herd it is possible to practically double the milk yield in two or three generations, provided the best heifers are saved for breeding and the culls or low producers sent to the shambles. The sire may well be considered half the herd.

A greater interest in the rural life of the Province. The growth of the creamery industry has made its effects apparent already throughout the Province of Nova Scotia. More interest is shown in the aim to keep better stock, to grow more feed, and to get a more profitable dairy cow.

### Do We Use Enough Milk?

The high cost of living, or as some are wont to term it the cost of high living, affects the farmer as well as the city dweller, although possibly not to the same extent, as he is able to secure considerable of his supplies at first cost. The price of milk, butter and cheese is gradually going up, and the farmer must charge these to his household account at the same price as he can secure for them, less the cartage to market. However, these are products that are high in digestible food nutrients. Milk is a food that in itself will sustain life. It is the chief food of the young and it is believed that larger quantities could profitably enter into the adult's daily ration. Even at nine or ten cents a quart, it is the cheapest food on the market and it can be used in a variety of ways. Cheese also is a highly nutritious food, but Canadians look upon it more as a luxury than a food. According to the chemist, one-half pound contains more of the material which goes to build up the body and supply energy than does three-quarters of a pound of pork chops, or beef steak. However, meat is usually preferred. Butter is used sparingly in some homes and there may be cause for it, when it is quoted at 45 cents a pound, but it contains a digestible fat and even at the high price is cheaper than other articles which we would not think of doing without. Authorities claim that by the use of more milk the cost of the daily ration could be greatly reduced without any inconvenience. This being the case, why is not more milk used, especially on the farms where it can be secured at first hand?

At the National Dairy Show many dairymen as well as city people stopped to consider a chart in the exhibit of the National Dairy Council. The weight of several common articles of diet equal in food nutrients to one quart of milk was itemized and the price of each on the retail market was given. Milk was selling at nine cents per quart. Chemical analysis shows that it takes two pounds of chicken to equal one quart of milk in food, but chicken was selling at forty cents a pound, or eighty cents' worth of chicken equalled nine cents' worth of milk. The following table gives an idea of the weight of the articles which equal one quart of milk, and the price in Springfield during the week of the show. At other points the price may be higher or lower:

12 ounces of beef.....	36 cents
12 ounces pork chops.....	30 "
9 eggs.....	30 "
2 pounds of cod fish.....	30 "
2 pounds, 8 ounces bananas.....	20 "
4 pounds, 6 ounces oranges.....	45 "
5 pounds, 12 ounces cabbage.....	11 1/2 "
2 pounds, 3 ounces potatoes.....	7 "
3 pounds, 7 ounces apples.....	5 "
7 ounces dry beans.....	6 "
6.5 ounces corn meal.....	3 "
5.6 ounces cheese.....	9 "
9 ounces bread.....	9 "

Milk can go higher than it is at present, and still be a cheaper food than many articles which are found on the average table. More cheese and less meat might also tend to decrease the cost of a meal.

### Water Requirements of the Milk Cow.

According to analysis average milk contains approximately 87 per cent. water and from this one would gather that the dairy cow must consume a large quantity of it in order to produce milk. Possibly few realize just what quantity is necessary for the average cow. At the Pennsylvania Experiment Station it was found that cows of average weight fed dry hay where the temperature was 73 degrees, drank 107 pounds, or 10.7 gallons daily. In investigating this question Professor Eccles found that cows in milk drank a good deal more water than when dry. Heavy producing cows drink considerably more water than the quantity previously mentioned. Those of low production may have their need supplied if they are watered once a day, but most authorities are of the opinion that a cow should have a chance to drink at least twice a day, and that she will do better work if permitted to drink whenever she wants to. There is much diversity of opinion regarding the advisability of taking the chill off the water for cows in winter. It hardly stands to reason that a cow can produce to the maximum if she is forced to drink water from a hole in the ice, or stand in the biting cold waiting her turn. When the weather is bad she very often returns to her stall without having quenched her thirst and must wait until the next day, when it is possible she may drink too much. Feed must be consumed to raise the temperature of the water drank to body temperature. Consequently, cows exposed to cold to drink icy cold water cannot be expected to produce a quantity of milk equal to the cow which receives her drink in the stable, where the temperature is moderate unless she is given more feed. Even then the chill is detrimental to milk production, but there is less danger of such occurring when the cow can drink all she wants, when she wants it.

## The Growth of the Dairy Industry in Nova Scotia.

Seldom does a long-settled country make such rapid growth in any branch of agriculture as has the Province of Nova Scotia in the dairy industry during the last nine years. When new countries start right in any line, as did the Prairie Provinces relative to dairying, we can expect a phenomenal advance but a country with a history extending over a period of more than three centuries is often slow to move. The mineral wealth, the forests, the fisheries, and all their kindred industries have long overshadowed the agriculture of Nova Scotia, or at least have tended to retard its development by diverting from the soil much capital and labor. The creameries of Nova Scotia have increased wonderfully both as to numbers and activity during the last decade, but they are only indicative of an agricultural awakening that has swept over the Peninsular Province during recent years. Dairy products there can probably be handled to better advantage than meat animals, as the markets for the former are larger and more wide spread. With more organizations and more creameries the dairy industry in Nova Scotia could still double its present output in a short time, for the greatest impetus to enterprise on the part of farmers is a successful and paying institution in their neighborhood or adjoining district. In 1908 the largest creamery in the Province had an output of 30,000 pounds of butter. That same year the Scotsburn creamery turned out 16,000 pounds, and so rapid has been its growth that this year it will manufacture 300,000 pounds of butter. Such a success is sure to encourage the patron, the would-be patron, and him who has shown indifference to progress along any particular line. They cannot fail to realize the wonderful potentialities of the dairy cow.

Progress of Creameries in Nova Scotia.

Year	No. of creameries in operation	Pounds of butter made	Value of butter made
1907	7	164,184	\$ 40,896.00
1908	7	163,147	40,886.00
1909	6	183,248	45,812.00
1910	10	256,420	76,669.20
1911	10	320,763	83,398.38
1912	11	470,603	130,076.17
1913	14	709,012	194,802.46
1914	17	913,273	257,600.00
1915	20	1,224,483	366,011.24
1916*	21	1,612,627	475,814.61

\* Estimated September 1.

It will be observed in the foregoing table that splendid progress has been made since 1912, and that twenty-one creameries are now turning over a product worth nearly half a million dollars. This industry, yet in its infancy, means considerable to Nova Scotia. There are several cheese factories still operating but conditions are such that those intimately connected with dairying look for the creamery to surpass in usefulness the cheese factory in that Province.

During the last few years there has been considerable development in outlying districts where facilities are such that the centralized creamery cannot be operated. In 1912 the Loch Katrine creamery was established in Antigonish County and the prospects for success were none too bright at that time. It prospered, however, to such an extent that during 1916 it will pay in the vicinity of \$30,000 to the patrons, and will probably run all the coming winter. There is nothing to prevent the farmer, remote from towns or railroads, turning out this commodity in large quantities, for it is a finished product and each pound of butter has a considerable

cash value. The LaHave creamery at Bridgewater has greater advantages. Several railroads converge at that point and each line brings in its quota of cream from the surrounding district. In 1915 its output totalled up to 132,935 pounds of butter, besides a splendid ice-cream trade. Seven thousand pounds in one week is its best record in summer and 3,500 pounds its lowest winter week. The ice-cream trade reduces the summer production of butter by 1,000 pounds per week. These are two creameries operating successfully under different circumstances. Many other creameries are serving the farmers in a splendid manner throughout the Province.

### Methods and Oversight.

The creameries are operated by co-operative companies and controlled entirely by the patrons. Their market is largely local, but some of the product is exported from Halifax. Summet dairying is still supreme, yet there is a noticeable development towards winter activities along this line which will, no doubt, increase the total output and the returns to the patrons. The cream is delivered three times each week in summer and twice each week during spring, fall and winter. Deliveries are made in individual cans and seven creameries now grade the cream and pay according to quality. The grading is done by the buttermaker who puts a tag on every can, indicating the weight and grade of the contents. If it is No. 1 quality, a white tag is attached; if of No. 2 quality, yellow or some other color is used, so the patron knows when his can is returned what his consignment graded. There is a difference of two cents made in the price of the two qualities. Generally the patrons take to this system and a feature worthy of notice is, that those creameries which grade the closest won highest honors at the Provincial Exhibition at Halifax last September.

Under legislation enacted on May 14, 1914, all cheese factories and creameries are obliged to register, but they must first be approved by the Superintendent of Dairying before certificates of registration are granted. This system provides for the oversight of the manufacture of butter and cheese, rules of sanitation must be observed, and the whole industry is consolidated under the supervision of W. A. McKay, Superintendent of Dairying for Nova Scotia, and in charge of the Dairy Department of the Nova Scotia Agricultural College. All new buildings or plants must be approved by the Superintendent before a certificate is granted. Centralized creameries must cost at least \$7,000, and the ordinary country creamery cannot be established under \$4,500. On Cape Breton Island two creameries have been established and operated by the Department. The patrons have bound themselves to organize and take them over when they have proved a success.

### Producer and Consumer Benefited.

At the Provincial Exhibition small fairs were distributed, illustrating the creameries in the Province and indicating how the producer and consumer will both benefit by the growth of this industry. To the producer will accrue:

- A cash market for unlimited amount of milk products.
- Skim milk at home on the farm.
- Better kept calves and better cows.
- The stimulus to higher milk production.
- An incentive to do cow testing regularly.
- The average production per cow doubled in five to ten years.
- The advantages to the consumer will be:
  - A uniform quality of butter.
  - A higher quality of butter all the year round.
  - A more uniform price for butter.
  - As the production increases a constantly higher grade of butter at a still more uniform price.



life of the Province. Industry has made its mark but the Province shown in the aim to and to get a more

**Milk?**

are wont to term the farmer as well as the same of his supplies butter and cheese farmer must charge same price as he can market. However, indigestible food will sustain life. It is believed that the adult's gets a quart, it is said it can be used highly nutritious as a luxury than one-half pound goes to build up three-quarters of a pound of steak. However, is used sparingly use for it, when it contains a price is cheaper not think of doing the use of more be greatly reduced being the case, only on the farms

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- .....11 1/2 "
- .....7 "
- .....5 "
- .....6 "
- .....3 "
- .....9 "
- .....9 "

esent, and still which are found and less meat meal.

**the Milk**

contains ap from this one consume a milk. Possibly ssary for the ment Station fed dry hay, drank 107 stigating this ows in milk dry. Heavy water than ose of low d if they are es are of the to drink at better work s to. There advisability s in winter. a produce to ater from a waiting her often returns r thirst and possible she consumed to nk to body d to cold to produce ch receives is moderate n the chill here is less n drink all

True, it necessitates the outlay of considerable cash to put water in the stable, but the experience of many dairymen is that it pays to have water before the cows all the time. There are different systems which give good satisfaction and there is time this fall to install the water in the stable and so give the milk cow every opportunity to make the best use of her feed.

Water can be forced to a tank in the stable by wind power, gasoline, ram, hand power, electricity, etc. If the bottom of the tank is raised a couple of feet above the level of the stable floor, water will flow by gravity to troughs or individual buckets in front of the cows. Iron, cement and wooden troughs are in use. A small trough with a float in it may be used to regulate the height the water can raise in the receptacles in front of the cows. In a stable we were in recently, the owner did not wish to put in a permanent water system as he purposed remodelling his stable in a year or two, but, realizing that his cows should do better if watered in the stable, he has ordinary eave troughing placed in front of the mangers and turns water into it twice a day. This system was used last year and he was satisfied that his cows did much better than when they had to go to a trough in the open. He claimed that water standing in the tank in the stable was considerably higher in temperature than the water outside, and believed this was a benefit to the cows. In another stable a cement trough runs along underneath a wooden manger which is on hinges. The cows open the manger at will to drink. So far this has worked satisfactorily and there has been very little trouble from dirt getting into the water trough. On another farm recently visited, the well is about 200 feet from the stable and the cows have had to go this distance in the winter time for water. Last year piping was laid from the well to the stable and the pump placed in the stable instead of at the well. At present the pump is worked by hand, and the owner claims that it is much more satisfactory and the returns are better when watering the cows in the stable than turning them out to drink.

The claim has been made by some that cows require exercise and that it does them no harm to be turned out for water every day. True, the exercise is all right, but is the water as warm in the outdoor trough as in the stable, and do the cows get all they require? Watering in the stable does not prevent them being turned out for exercise. The point is that a cow in milk requires a large quantity of water every day, and it seems reasonable that it is better for the animal to get the supply in small quantities and often, rather than to gorge herself once or even twice a day on water, the temperature of which has not been tempered by the heat of the stable. Arguments are in favor of watering milk cows in the stable, at least during the coldest part of the winter. It is claimed that there is danger of spreading disease by several cattle drinking out of a continuous trough, or even two drinking out of one bucket in the stable. It may be possible to spread contagious disease in this way, but the risk appears to be no greater than when the whole herd drinks out of a common trough the summer through. If milk is the object, the cow must have a sufficient supply of clean water, whether she obtains it in the stable, the water trough outside or the spring creek. For the winter milk production best results are obtained when she can drink at will in the stable.

**POULTRY.**

Don't expect the hens to lay this winter unless you give them proper accommodation and the right kind of feed.

Egg shells are made of lime, and if it is not furnished the birds they cannot produce eggs. It may be supplied in the form of oyster shell or broken plaster.

It is advisable to crate-fatten and market surplus cockerels and cull pullets during this month. With the price of grain it is doubtful if it will pay to keep them much longer.

Green feed is necessary to keep the birds in health and promote egg production. This can be supplied in the form of clover leaves, mangels, or turnips, which are usually found around the average farm.

If the pen was dark and damp last winter, it should be remodelled. Poultry require a light, dry, well-ventilated pen. It need not be too warm but it must be dry. Cotton fronts aid in giving the required ventilation.

Do not forget that the hen requires grit to grind her feed. She picks this up in the yard during the summer and will possibly do without it for a long time in the winter without showing ill results, but the effect will be noticed sooner or later.

Turkeys can find very little feed on open range now, and require fairly heavy feeding in the yard in order to fit them for the best markets. If any of the birds show signs of sickness, isolate them, as they may be the means of spreading disease through the flock.

When hens are passing through the moult, they require animal food in order to grow their new coats. Very little is obtained in the fields at the present time, consequently it may be an advantage to feed a little beef scrap, or meat in some other form. Beef liver,

lights, and beef heads are frequently available, and if cooked will aid in promoting growth of new feathers and in the production of eggs. Milk is the cheapest and one of the most satisfactory forms of animal food. It should be given to pullets as well as old hens.

**Canada Needs More Poultry.**

The high price of eggs and poultry at the present time signifies a scarcity of these products. The demand, whether for export or home consumption, is unprecedented. Information regarding the status of the poultry industry, given by H. S. Arkell, Assistant Live Stock Commissioner, Ottawa, is to the effect that the prospects for a continued demand are very bright. The country is facing a shortage not only of current receipts but of Canadian storage stocks as well. The export demand has been so great that Canadians will be obliged to import if their requirements are met. Therefore, increased production rests upon a sure foundation. Poultry flocks can be increased materially without much additional outlay for buildings and equipment, and the increased labor involved is not such as will bear heavily upon the time of those charged with the care of the stock. Poultry on the farm should be profitable. The present high price of feed is considered by some as the argument against increasing the flock, but it must be considered that the selling price of the product is from forty to sixty per cent. higher than it was two years ago, which should leave a fair margin of profit.

A few years ago Canada was importing eggs, but in the aggregate produced more than sufficient for its own requirements this year and last. Between seven and eight million dozen Canadian eggs were exported to Great Britain last year, and, as an indication of what is going forward this year, nearly one million dozen were shipped during the first week of October. The supply on the British market is still short, and there is a demand for many million dozens more. Therefore, more and better poultry might well be the motto on every farm. At the present time eggs are scarce in Canada, prices are high, and the Live Stock Branch does not anticipate a sharp decline immediately following the conclusion of the war, as it has been noticed where prices have advanced gradually, as in the case of staple food products, they decline slowly. Eggs are a staple article of food, and with the high prices of meat there is a tendency to be an increase in the consumption of them. With the prevailing conditions it should pay to increase the flock even if feed is high in price, but the aim should be to secure and keep fowl which will lay, and give them the required attention.

**Keep the Henhouse Clean.**

The farmer who would allow his cattle or horse stable to go for several days without cleaning would be considered slovenly by his neighbors, and yet the men who are very particular about keeping their main stable clean allow the henhouse to go for months without removing the litter and excrement. It is not necessary that the henhouse, where no dropping-board is used, be cleaned every day, but it should be done once a month at least. Give it a thorough cleaning in the fall. Sprinkle a little lime over the floor, which tends to disinfect it, and it does no harm to whitewash the interior. This can be applied either with the brush or a spray pump. If carbolic acid, Zenoleum, creolin, or some other disinfectant is used it will aid in destroying the vermin. No one can afford to keep hens that are infested with lice or mites. Fresh straw should be placed on the feeding floor every month; it should be from six inches to a foot deep in order to give the hens plenty of exercise searching for their grain feed. There is no better way of getting the blood in circulation and heating the bird's body than by vigorous exercise in the morning. Consequently, many poultrymen make a practice of sprinkling grain in the litter after the birds have gone to roost, so that they are induced to scratch, the first thing in the morning. This straw becomes cut up and more or less dirty in a few weeks' time, which necessitates a cleaning of the pen. If the droppings are left to accumulate underneath the roost, they commence to heat and the moisture given off is not good for the birds. Clean the pen in the fall, and aim at keeping it clean all winter. It is as important as keeping the main stable clean. Poultry will not do well in filth any more than will other live stock.

**Cost of Producing Eggs.**

For five years an International Egg-laying Contest has been carried on at Victoria, B. C. The duration of the contest is for eleven months, and the following itemized account of cost of feed and egg production per hen shows a substantial profit for the fifth annual contest:

Number of pens.....	40
Number of birds.....	240
Number of eggs laid.....	36,382
Value of eggs laid.....	\$1,030.88
Cost of feed.....	\$436.45
Profit over cost of feed.....	\$594.43
Average price of eggs per dozen.....	.34
Average cost to produce dozen eggs.....	.14.3
Average number of eggs laid per bird.....	151.5
Average cost of feed per bird.....	\$1.81
Profit over cost of feed per bird.....	\$2.47
Average eggs laid per bird in the winning pen in class for heavy birds.....	183.8
Average eggs laid per bird in the winning pen in class for light birds.....	187.6
Poultry Director, B. C.	J. B. TERRY,

**HORTICULTURE.**

Clean up the vegetation in the garden and burn it to destroy any insects that may be hibernating there.

Store the vegetables in a cool, dark, well-ventilated place. A little sand spread over the roots helps to retain their moisture and flavor.

Plan to graft out the unprofitable varieties in the spring. A few fallen apples beneath the trees may still help to identify them if the orchardist is not sure. It would be well to mark them in some way so they can be worked over in the spring when means of identification are pretty well erased.

Often it pays to rib up the garden patch in the fall. The ridges dry out much earlier in the spring than the level land, and the garden seeds can sometimes be put in before the land used for field crops is ready to work. In this way the gardening can be done before seeding and that is better than after seeding and planting, which is commonly the case.

**Factors Limiting Peach Production.**

Generally speaking, there was a splendid crop of peaches in Ontario in those districts which time has proven are suitable for the production of such a crop. These areas are not marked by county or township lines; they depend altogether upon the proximity of large bodies of water, atmospheric conditions, and the character of the soil. In the Ontario Bulletin No. 241 are mentioned a few factors limiting the production of peaches, which are herewith reproduced:

The native home of the peach is almost sub-tropical, but many years of growth under varied conditions have gradually fitted it for severer climates. Undoubtedly we can reasonably expect that varieties will be developed that will withstand more severe climates and more adverse conditions than our present varieties. At present, however, a minimum of 20 degrees Fahrenheit below zero, not continued for more than a few hours, is considered the limit of hardiness of wood and bud. The tree must be well prepared or it will not stand even this extreme.

A soil either too wet or too dry is not the most protective to the roots. A wet soil freezes deeply, and is conducive to sappiness in the new growth. Consequently, conducive to weakness. A soil too dry cannot readily replace the evaporation lost from the twigs, and a shrivelling is noted which leads to loss. A soil too rich in nitrogen is also conducive to a sappy growth which will not stand the extremes of cold.

Generally speaking, the medium rich, deep, warm, well-drained soils produce the hardest trees. A disregard of any one of these factors is fatal. The smaller, slower-growing varieties are hardest, and a limit of 20 degrees Fahrenheit below zero may be set as a mark even under the most ideal conditions.

**Winter Wrappings for Strawberries.**

There are two methods followed by which the strawberry plantation can be successfully brought through the winter. One is to enrich the soil when the plants are set, so a heavy covering of growth may be procured. The other is to mulch them lightly with three or four inches of straw, or strawy barnyard manure. Many of the best growers depend upon the first method for, in this way, they avoid the trouble with weeds, which the mulching system enhances. Personal observation, however, leads us to believe that while weeds may give considerable trouble, especially when the plantation is to be kept for a second or third crop, the mulching with straw, or strawy manure, is a more efficient safeguard against frost injury than any other practical method yet devised. Sometimes straw is given the preference over coarse manure, because it does not settle so heavily on the rows and tend to smother the plants. In the spring this mulching is often raked between the rows where it acts as a covering to conserve moisture and tends to keep the fruit clean or free from dust. When strawy manure is used, the coarser parts can be raked off in the spring and carried away, and the finer particles allowed to remain between the rows where they will give very little trouble, and at the same time keep down the dust and dirt.

The proper time to mulch is in the fall before any heavy precipitation of snow takes place. It is better to have the material underneath the snow than on top of it. As soon as the ground freezes sufficiently that a load can be teamed over it, without the wheels sinking into the ground, is a suitable time to mulch the strawberries. The mulch will tend to retard the bloom in the spring, and thus prevent frost injury to the blossoms. It is not well, however, to carry this principle too far. When the leaves begin to blanch under the covering remove the mulch.

It is well also to make provisions for all surplus water to leave the plantation. Strawberries cannot stand water and the consequent freezing and thawing any better than wheat, and if there are low places or pools in the field, water furrows should be cut to them, allowing all excessive moisture to escape.

## Eastern Canada's Biggest and Best Plowing and Tractor Demonstration.

"He that by the plow would thrive,  
Himself must either hold or drive."

In the days when Franklin wrote the foregoing lines the plowman was obliged to both "hold" and "drive." But the brains of the inventor and oil from the oil fields have accomplished, and are still working, many changes to lighten farm labor, to fill the place of the boys and hired men who have turned their backs upon the land, and to make farming a more attractive, interesting and remunerative business than it has been. The walking plow is not by any means superseded. The riding plow has gained a strong foothold with the man who must plow all day and do chores night and morning, as most farmers and farm laborers must do; and now comes the small tractor which the manufacturers and farmers both hope may be so perfected that it can be sold reasonably and used to advantage by the average farmer on the 100-acre or 200-acre farm. Good plowing and plenty of it is essential to progress in agriculture.

To demonstrate the possibilities of the plow and the tractor, a big tractor farming demonstration was held on Meadowbrook Farm, near Whitby, Ontario Nov. 1, 2 and 3, and the Provincial Plowing Match, under the auspices of the Ontario Plowmen's Association, was staged on the same farm Nov. 2, the big day of the biggest demonstration of its kind ever held in Eastern Canada. The weather was ideal; the November sun, pale in the morning, bursting forth in Indian Summer splendor throughout the middle of the day. The crowd was immense, various estimates placing it at from 7,000 to 10,000. The motor car was the chief means of conveyance, from 700 to 1,000 being parked in the field, but the horse was there too, and there was nearly a mile of buggies standing side by side. While the crowd came to see the tractors in action, it was significant that the day of the plowing match brought the people, the straight and narrow furrow, well set up, still appeals, and many were they who agreed with the grey-headed man who had followed a team for many years when he remarked as he pointed to the tractors: "Them things is all right, but the Clydesdales, the old iron plow and the boy who can set it up interests me more." The old school and the new school were there, and none were disappointed.

### The Plowing Match.

Let us discuss the match first. There were eight classes with entries divided as follows: Five in the first class in sod; nine in the second class in sod; two in the sod class for boys under eighteen years; five in the jointer class in sod; three in stubble class; none in the stubble class for boys under eighteen, no wheel attached; and one boy under sixteen in stubble. The other class was for teams. The land selected for the match was not well suited for such competition. The sod was only one year old, instead of three or four, the kind the plowman likes, and the stubble land was covered with a stubble long enough to call a coat of straw, making it very difficult to do the best work. However, the work done was a credit to the competitors, and should stimulate plowmen to greater effort and better work on their own farms.

Right here we wish to say again, as we have done in the past, that the plowing as done at the match is not practical for the farm. The only time the narrow-bottomed, old, iron plows are ever used is in such competitions. The rest of the time they are carefully stored away in the implement shed. What farmer would ever get his land plowed at the rate of one acre every 20 hours, the time for the sod classes, or one acre every 14 hours—the time for the jointer and stubble classes? And no farmer has time to pack the strike-out mark with his feet and set his crowns up with his fingers. We have recently suggested that the Government do something for plowing on the average farm by offering prizes for the best ten acres of plowing, the scheme to be worked out on lines similar to those upon which the Field Crop Competitions have accomplished so much. The Provincial and local matches could be carried on as well, if thought advisable. They make a good day's outing for the farmer and must have some value in inspiration, but the time given to do the work should be shortened and the plowing speeded up more nearly to the rate at which the work is done on the farm.

There was little to be said about the plowing done by the competitors. There was not a poor land in the lot. Competition was keen and decisions were close. There were some great crowns and finishes, considering that the sod was too new and the stubble too long. It was unfortunate that Class Six had no entries! Boys, get in the game! We congratulate the winners as follows:

**Awards.** First Class, in sod: 1, Bert Kennedy, Agincourt; 2, Chas. Clubine, Woodbridge; 3, Thos. Swindle, Orillia; 4, Stewart Baird, Scarborough Junction.

Best finish, Bert Kennedy, Agincourt; best crown, Thos. Swindle, Orillia.

Second Class, in sod, open to all those who had not won a first prize in this class prior to 1916: 1, Albert E. Pay, Niagara-on-the-Lake; 2, Gardham Tran, Whiteville, Ont.; 3, Harvey Coathup, Ellesmere; 4, Lloyd Marquis, Sunderland.

Third Class, boys under 18 years, in sod: 1, Alex. Walkington, Agincourt; 2, Jas. Lee, Orillia.

Fourth Class, jointer plow in sod: 1, Wm. L. Clark,

Agincourt; 2, David J. Tran, Claremont; 3, Eddie Timbers, Stouffville; 4, R. McCamus, Ida.

Best crown and finish: L. Clark.

Fifth Class, men in stubble: 1, Winfred Timbers, Stouffville; 2, W. J. Reed, Orillia; 3, W. H. Munro, Ellesmere.

Sixth Class: No entries.

Seventh Class, boys under 16 years, in stubble: 1, Chester Lee, Orillia.

Eighth Class, best team and equipment: 1, W. H. Munro, Ellesmere; 2, Jas. Henderson, Brown's Corners; 3, Lloyd Marquis, Sunderland.

Sweepstakes, best plowed land and field: Bert Kennedy, Agincourt.

Sweepstakes, trophy for boys: Alex. Walkington, King, Ont.

### The Tractors Drew the Crowds.

Tractors were what the people came to see, and the throngs which gathered around the various makes, followed them across the fields, examined, studied, criticized, were delighted with what they saw. It was a big show with a big crowd and no Midway. Farm machinery of various kinds was there, including clover hullers, small threshers, gasoline engines, electric light equipment, grinders, potato planters, binders, manure spreaders, rollers, discs, cultivators, plows, etc. It was a real farm demonstration.

We are pleased to note that investigation and inventive genius are making the tractor smaller year by year, and it may be that the hard work and long hours of fall plowing and other farm work will in a few years vanish and the plowboy will again have time to get in the whistle, which the poets of the past associated with him, and Goldsmith's line: "The plowman homeward plods his weary way," will no longer apply, for the plowman will not plod, will not be weary at the end of a day's work, and will ride home on the comfortable seat of his cultivating automobile.

The big tractor did not prove as successful as some expected in the West. Neither will the smaller tractor in the East, unless the manufacturers realize fully the position of the average farmer in Ontario. Mixed farming prevails in this Province. The farms are not large. Fields are small. Work is varied. The tractor to prove a success must be small, handy, easy to turn in small space, and every manufacturer should emphasize its usefulness on the belt for such work as grinding, cutting feed, filling silo, if necessary, running a small threshing outfit, turning the separator, operating the milking machine, cutting wood, etc. The small, light machine, easily handled and which may be used for many different kinds of farm work, is the one the 100-acre or 200-acre farmer of Ontario will buy if he does buy. The manufacturer must also bear in mind that conditions are such on the Ontario farm, and this is also a point to be considered by the farmer, that some horses are absolutely necessary. This being true, the machine must be reasonable in price for it will at best replace only a part of the horse, and the farmer will have to be able to use it on all his cutting, grinding and such work to make it pay. Otherwise an extra horse or two could be kept to advantage. One strong point in favor of tractors will be their use in work around the farm. They can be made the farm engine. They must be light, handy, small and suitable for the widest variety of farm work.

The demonstration this year showed the tractor in a much more favorable light than did that of 1915. Improvements had been added and machinery perfected. Readers will be interested in the illustrations on the accompanying page, showing the various types of tractors and some of the work of the men who plowed in the plowing match. The Big Bull, the two types of Avery, the International Mogul, the two Case machines, the Sawyer-Massey, and the two Ford outfits were followed all day, and for three days. The smaller tractor the bigger the crowd seemed to be gathered around it. We did not time them all, but one Ford machine, pulling a two-furrowed plow, turned over one acre in 55 minutes, on three gallons of kerosene. Some of the machines pulled three plows and some two, and one big machine present pulled five plows. Some of the machines were using kerosene and others gasoline, and some would go the length of the field with no one at the wheel, the operator walking by the side of the outfit. They not only pulled plows, but they disked fresh-plowed land, pulled a manure spreader, binder, roller, harrow and so on, and sometimes with two or three implements attached one behind the other.

The tractor is destined to be a force in Eastern Canada agriculture, provided it can be made fill the bill of the mixed farmer by doing, besides field work, engine work at the barn. There are different types, some of which we illustrate. We would advise those contemplating making a purchase to see them all, size them up as to power, suitability and price, and then decide how many horses they will replace and their value at doing engine work, before purchasing. If they can be bought at a price at which they will pay, thousands of farmers will have them before many years, but for the bulk of the purchasers it might be wise to delay buying a year or so until

the firms get their machines perfected. It will be better business for the manufacturer and the farmer too if the latter is satisfied he has the "best" machine. The tractor is in the experimental stage and nearly ready to emerge.

From our own observations we are inclined to think that the tractor will prove, in so far as cultivation is concerned in Ontario, its greatest success on the plow. It would work all right on the binder, but there are difficulties in running it over plowed or loose land. Heavy clay would be likely to stick and clog, and the weight of the machine packs at times where a loose bottom is preferable. Hauling manure out of a barnyard might present difficulties. Spring seeding is only a ten days' to two weeks' job in Ontario anyway, and the horse still looks good for the loose ground.

Here is where the tractor should shine—in doing fall plowing quickly after harvest. In helping a farmer, short of help, catch up with his work in the fall. At certain times, to be used when in a rush in harvest, or in the spring's work, such as getting fields plowed which had been left over from fall, for instance, land for corn. And best of all, its value for doing belt work on the farm.

Cut the size of most of the tractors down; cut the price down accordingly, and emphasize their importance on the belt, and all the best farms in Ontario will very soon have tractors.

The big demonstration helped. Many farmers present were ready to buy what they saw. More will be convinced as time goes on. The tractors pleased the people and furnished an excellent exhibition.

### Finishing Lambs for the Block.

On the Dominion Experimental Farms some interesting results have been obtained from a number of experiments in lamb feeding conducted during the last few years.

The large percentage of Canadian lambs are marketed in the fall direct from the pastures. All the lambs from the farmer's flock are usually lifted at the same time, which means that the well-finished lambs of good weight must help to sell the light, thin lambs, which may be as well-bred, but being late lambs or twin lambs, have not done as well as their flock mates. Well-finished lambs of uniform weight invariably command a higher price than mixed lambs, varying in size, weight and finish, hence it is always more profitable to hold the lighter lambs and sell only those of uniform weight and finish. Again, the selling of the most of our Canadian lambs during the fall months practically always causes a slump in price. Lambs not required for immediate consumption are held in cold storage to the profit of the wholesaler in view of the usual increase in price of from \$1 to \$3 per hundred pounds between the months of November and April.

When the farmer appreciates these two conditions the lamb trade will be revolutionized and the farmer will finish his work and reap full profits for food-stuffs consumed by, and labor expended on, his sheep. Many farmers with abundance of roughage can well afford to finish from one to three carloads of lambs during the winter months, thereby making top market prices on the farm produce and a good margin of profit in addition. Realizing the existence of such conditions all over the Dominion, a large amount of investigational work along these lines has been conducted on the Dominion Experimental Farms throughout Canada. Details of this work may be seen in the annual reports. However, a brief summary of the work to date may be timely.

### Profits in Winter Feeding Lambs.

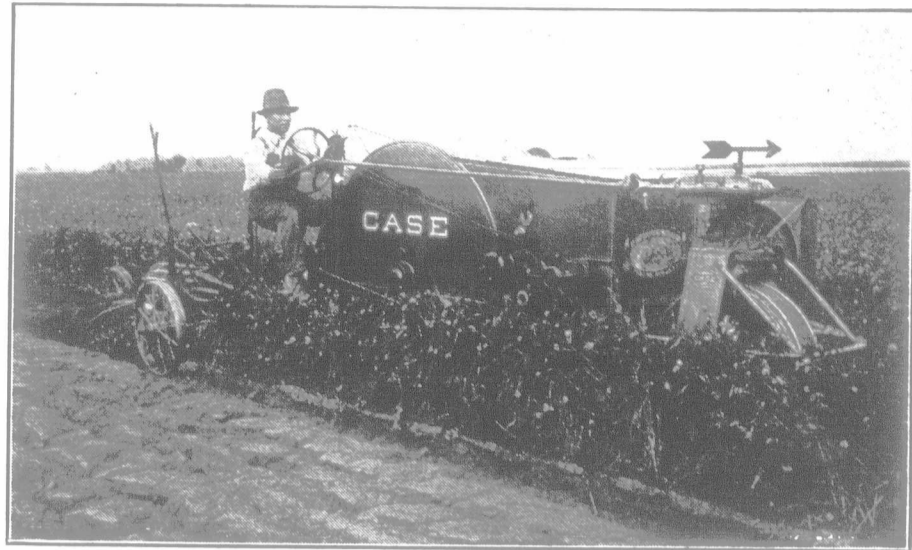
In the six years' work conducted on the Experimental Farms system, the profits on the winter finishing of lambs have ranged from 25 cents per head to \$2.10 per head over the cost of feed. In other words, the Experimental Farms and Stations have purchased unfinished lambs on the open market or from drovers, and, after charging good prices for marketable farm feeds and cost prices for other roughages, have made from 3 to 33 per cent on the investment in the lambs, labor not included. Even allowing a fair margin for labor, this is as profitable a line of feeding work as can be carried on and shows a return on investment greater than is usual in the finishing of steers or shoats.

The class of lamb to buy depends largely on the lambs available and market requirements. Usually, the well-bred lamb showing plenty of constitution and thrift and weighing from 60 to 80 pounds is the best stocker lamb to put into winter quarters. Lambs weighing from 80 to 100 pounds, if thin, may be profitably put in the feed lot for a short finish and if good fall pastures are available this may be as profitable a line of work as any. The finished, heavy lamb weighing from 80 to 110 pounds should never be purchased for feeding purposes. The time when greatest profits can be made in purchasing lambs is usually between the months of August and November. However, the condition of the pastures and of the lambs themselves as well as the markets, will regulate the time for purchase. The proper time to sell the lambs is when they are finished, whether this be November or April or any intervening month. This applies also to the selling of lambs off grass. Finished lambs will make small gains at a very high cost per pound, which cost will usually be far in excess of the market price at that season. In addition to this, the markets are demanding

# Tractors and Teams Seen at the Plowing Match



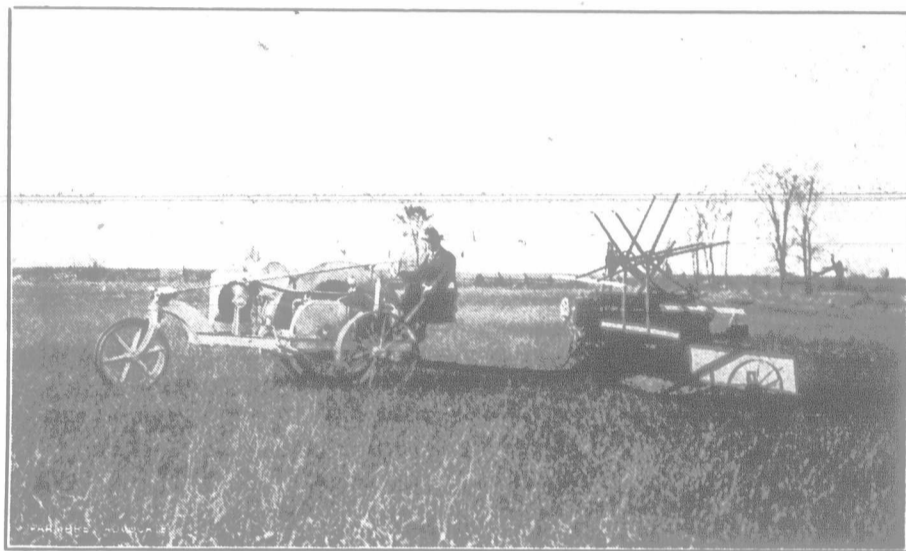
**International "Mogul" Tractor.**  
Pulling manure spreader on fresh plowing.



**Case Tractor plowing down clover.**  
Two of these machines were at the Demonstration.



**Avery Tractor.**  
Pulling double disks on fresh plowing.



**Big Bull Tractor.**  
Demonstrating on a binder on Meadowbrook Farm.



**The Ford Tractor.**  
One machine burning kerosene the other gasoline.



**Making a good finish.**  
Most of the competitors finish with one horse.



**A Finish in the Jointer Class.**



**Showing a land in the first class.**  
The team was also a prize winner.

a well-finished lamb, not overdone, and ranging from 85 to 105 pounds live weight, depending upon the breed and season of the year. This, of course, does not apply to the young lamb trade of the spring and early summer.

The following table shows the average profits over the cost of feed in the feeding of lambs on the Experimental Farms throughout Canada during the past six years:

Average Profits in Winter Lamb Feeding.

Experimental Farm at	No. of years	Weight of lambs when put in feed lot	Buying price per cwt.	Selling price per cwt.	Spread between buying and selling prices	Profit over feed, per lamb
Ottawa, Ont.	5	Lbs. 99	\$6.65	\$8.25	\$1.60	\$1.38
Charlottetown, P. E. I.	4	63	4.65	6.25	1.60	.70
Nappan, N. S.	3	84	5.80	7.83	2.03	.90
*Lennoxville, Que.	1	90	6.00	9.00	3.00	1.65
Indian Head, Sask.	1	70	6.00	6.00	—	.34
Lethbridge, Alta.	5	69	5.66	7.67	2.01	1.35
Average	3	79	5.79	7.50	1.71	1.05

\*Most of the lambs at this Station finished on pasture.

This table shows an average profit over feed—on Experimental Farms and Stations throughout Canada, in the feeding of many carloads—of \$1.05 per lamb when the spread between buying and selling prices is approximately \$1.70. Since the spread between buying and selling prices has exceeded this amount during the past two years and promises a still further rise during the next two years, one is safe in anticipating a reasonable profit in lamb finishing, in spite of the very high price of lamb at the present time. If this applies to the purchasing of stocker lambs for winter feeding, it would apply doubly to the farmer or shepherd having lambs in an unfinished condition. It is always profitable to finish lambs before putting them on the market.

**Feeds for Winter Lamb Finishing.**

A large number of feeds have been tried in this work and these may be briefly treated under the four headings: dry roughages, succulent roughages, grains, and mill feeds.

Of the dry roughages, alfalfa hay is an easy leader, closely followed, however, by fine clover hays and fine mixed hays. At the Experimental Station Lethbridge, Alta., it has been found that alfalfa hay when properly fed with succulent roughages and grain, is worth \$21 per ton for the finishing of lambs. It has also been found that alfalfa hay alone or with meal is less profitable than when succulent roughages, such as roots (turnips and mangels) or green oat sheaves, are also fed. What applies to the rich alfalfa hay also holds true with clover hays. Good quality clover hay is worth from 10 to 50 per cent. more in lamb feeding than timothy or similar grass hays. Proving the value of succulent roughages, it was found also that good quality timothy hay plus mangels gave 15 to 20 per cent. more profitable gains than clover hay alone. A hay made from peas and oats, well cured, will produce satisfactory gains but at least 10 per cent. less profitable than alfalfa or clover or a mixture of these with oat sheaves.

Fine corn stover will also make profitable gains, but there is a large percentage of waste. However, a small amount may be fed satisfactorily as a supplement to good quality leguminous or grass hay. Coarse hays commonly found in marsh lands are approximately 50 per cent less valuable in lamb finishing than good quality timothy hay, and approximately 60 to 75 per cent. less efficient than clover or alfalfa hay. A limited amount of straw may be fed satisfactorily in

finishing lambs, but this should only be as a supplement to clover hay and roots. Generally speaking, the richer the hay and the better it is cured, the more profits will be made in feeding it to lambs. Coarse, dry roughages of any sort are less palatable, more wasteful and less profitable than are the finer feeds of the same varieties.

Succulent roughages play a very large part in profits from lamb finishing. Generally speaking, good succulent roughages, such as turnips, mangels, sugar beets, corn silage, pea and oat silage, or the like make the dry roughages and grains more palatable and more digestible. Again, these succulent roughages are cheaply grown and are rich, nutritious foods in themselves. Where corn silage may be raised for \$2 per ton, it is the cheapest and best succulent roughage for lamb finishing. When fed with clover hay and grain it will produce 5 per cent. greater profits than a mixture of turnips, clover hay, and grain. However, a mixture of turnips and silage with hay and grain will usually give greatest profits. The turnip is the safest root feed in finishing lambs, particularly where wether or even ram lambs may be found in the pens. Mangels, particularly, may have a dangerous influence on the kidneys of wethers and rams.

The grains which may be most profitably fed vary considerably from year to year with the market values of those grains commonly found in Canada. Oats, barley, and feed wheat are all excellent grains for lamb finishing and may be fed whole or crushed but never fine-ground. A mixture of these three will usually give much better results than any one grain singly. Corn is another grain which excels in the fattening of lambs, particularly those requiring only a short finish. Corn-fed lambs on the Central Experimental Farm have reached a profit of \$2 per head, making great gains at a reasonable cost. However, at the present market prices corn would not be profitable

for this purpose. Elevator screenings also are very valuable in lamb finishing, varying in value, however, in direct proportion to the variation in the quality of the screenings. Where there is a high percentage of broken kernels of wheat and barley and oats, screenings may have a food value almost equal to a mixture of barley, oats and wheat. Elevator screenings containing a high percentage of black-seeds and foreign matter have less feeding value. Screenings with dirt and black-seeds screened out give the greatest gains and profits. A mixture of whole screenings with barley and oats has given from 10 to 40 per cent greater profits than the screenings alone, the variation being due to the varying quality of the screenings. Black-seeds alone are most unpalatable and are dangerous to feed, in that a large proportion of the feed will pass through the lambs in an undigested condition and will again germinate on the land. Black-seeds fed alone are unprofitable and the lambs will make small gains if compelled to depend on this feed for their sustenance.

It is doubtful if, under average conditions, any high percentage of mill-feeds can be fed profitably in lamb finishing. However, where grains are very expensive the following meals may be profitably used: Bran is an excellent addition to a grain mixture, especially in the absence or partial absence of succulent feeds. Linseed oil cake might often be profitably added to the ration to put a final finish on the lambs. Gluten meal grain is even superior to the linseed oil cake. Cotton seed when not exceeding 10 per cent. of the ration may often be a profitable addition to the grain ration. Middlings, shorts, and fine ground grains are of a pasty nature when moist and should not be fed.

To briefly summarize the feeds, one might say that the character and quantities of feeds depend largely upon market conditions and feeds available. A ration including some good succulent roughage and properly balanced as to nutritive contents will almost invariably give greatest profits. Generally speaking, it will not pay to exceed one pound and a quarter of grain per lamb at the finish, nor will it be profitable to feed more than 5 pounds of succulent roughage and 3 to 5 pounds of dry roughage per head per day at any time during the finishing period.

**Cost of Equipment.**

The cost of equipment for the finishing of lambs is very light. Warm quarters are not necessary for sheep of any class. Sheltered sleeping quarters, free from drafts and having a dry floor, are usually all that is required. A good, tight, single-board shed with doors opening to the south or, for the prairie provinces, a straw shelter or even the protection of the bush or the straw stacks, would, under average conditions, be ample for this purpose. Cheap, convenient racks and troughs or a combination rack and trough will cost little per carload of lambs fed and, if made portable may be used for both summer and winter feeding. No other class of stock requires so little in cost of equipment, in buildings, utensils, preparation of feeds, or in any other way as do sheep. In these days when labor is extremely scarce, this phase of animal husbandry should appeal strongly to the farmer who has not sufficient labor to go into dairy husbandry, swine, or even beef cattle.—[Department of Agriculture, Experimental Farms Branch.]

**Toronto, Montreal, Buffalo, and Other Leading Markets.**

**Toronto.**

Receipts at the Union Stock Yards, West Toronto, on Monday, November 6, numbered 289 cars, 5,971 cattle, 304 calves, 656 hogs, 2,939 sheep. The cattle market was slow and draggy, all butchers were 15 to 25 cents lower; medium steers were 50 cents lower; canners and cutters were ten to fifteen cents lower, good milkers and springers were steady; common kinds were slow; lambs and sheep twenty-five cents higher. Calves steady. Hogs slow at prices quoted by packers.

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

	City	Union	Total
Cars.....	115	913	1,028
Cattle.....	1,427	10,179	11,606
Calves.....	26	928	954
Hogs.....	2,878	17,859	20,737
Sheep.....	2,116	10,098	12,214
Horses.....	40	3,370	3,410

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

	City	Union	Total
Cars.....	60	596	656
Cattle.....	548	5,985	6,533
Calves.....	35	480	515
Hogs.....	978	6,297	7,275
Sheep.....	3,250	6,442	9,692
Horses.....	16	3,874	3,890

The combined receipts of live stock at the two markets show an increase

of 372 cars, 5,073 cattle, 439 calves, 13,462 hogs, 2,522 sheep, but a decrease of 480 horses when compared with the corresponding week of 1915.

Packers quote hogs for the week, commencing Monday, Nov. 6th, as follows: f.o.b., \$10.15; fed and watered, \$10.65; weighed off cars, \$10.90.

The live-stock market opened on Monday with about five thousand cattle on sale. All classes of good butchers and heavy steers sold steady to a shade stronger than the previous week. Common cattle selling at fairly steady prices, although in a few cases they were a shade lower. For some weeks past the bulk of butchers' cattle have been of very poor quality, and sold for every cent they were worth. Choice cows were active and strong all week, selling freely at from \$6.25 to \$6.50; a few extra choice bringing \$6.75 to \$7. Canners and cutters were strong and in demand, selling at from \$3.25 to \$4.50. Milkers and springers—Good to choice milkers and forward springers were firm and brought \$80 to \$125 each; only extra choice cows brought the latter price; common milkers and backward springers were slow and slightly lower. Choice, well-finished bulls met a ready sale at from \$6.50 to \$7.25; Bologne and common bulls at \$4.85 to \$5.50; although receipts were heavy, the cattle trade was active to strong and brought very satisfactory prices this past week. Sheep have been much in demand and sold at from 7c. to 9c. per lb. The latter price was paid, in many cases, by farmers

who intend using the sheep for breeding purposes. Lambs—With Monday's heavy receipts the lamb market broke at least 25c. It recovered quickly and lambs were active to strong the balance of the week, selling at from \$10.50 to \$11 for choice, and \$8 to \$10 for culls. Ottawa Valley Blackface lambs are arriving quite freely and are bringing top prices; one lot of 200 sold at \$11.15 on Thursday. Calves—The calf market improved considerably, being steady to active all week. Choice veal sold at 9c. to 10½c. per lb.; a few extra choice calves sold at 11c. per lb.; heavy fat and Eastern grassers at 4½c. to 7½c. per lb. There was a large run of hogs, and they sold steady to stronger than the quotations sent out by packers. Fed and watered sold at \$11.15 to \$11.25; weighed off cars, \$11.40 to \$11.50. A few decks of selects sold at 10c. higher than the above prices.

Quotations on Live Stock.—Choice heavy steers, \$8.35 to \$8.65; good heavy steers, \$7.65 to \$8. Butcher steers and heifers—Choice at \$7.50 to \$7.75; good at \$7 to \$7.25; medium at \$6.50 to \$6.75; common at \$5.50 to \$6.25. Cows, choice at \$6.25 to \$6.50; good at \$5.75 to \$6; medium, \$5.25 to \$5.50; common at \$4.25 to \$5; canners and cutters at \$3.75 to \$4.50. Bulls, choice at \$7 to \$7.25; good at \$6.50 to \$6.75; medium at \$6 to \$6.25; common at \$5 to \$5.50. Feeders, best, \$6.50 to \$6.75; medium, \$6 to \$6.25; common, \$5 to \$5.75. Stockers, light, good to choice, \$6 to \$6.50; common to medium, \$4.50 to \$5.50.

Milkers and springers, \$55 to \$125. Spring lambs, choice, \$10.50 to \$11.15; cull lambs, 8c. to 8½c. per lb. Light butcher sheep, 7c. to 9c. per lb.; heavy, fat sheep and bucks, 6½c. to 7½c. per lb.; culls, 2c. to 5c. per lb. Veal calves, choice at 9c. to 11c. per lb.; heavy, fat and grassers at 4½c. to 7½c. per lb. Hogs, fed and watered, \$11.15 to \$11.25; weighed off cars, \$11.40 to \$11.50. Less \$2 off light hogs, \$2.50 to \$3.50 off sows, \$5 off stags, and one-half of one per cent. government condemnation loss.

**Breadstuffs.**

Wheat.—Ontario, No. 2 winter, new, per car lot, \$1.75 to \$1.77; No. 3 winter, per car lot, \$1.73 to \$1.75; No. 1 commercial, old, \$1.70 to \$1.72; No. 2 commercial, old, \$1.60 to \$1.63; No. 3 commercial, old, \$1.51 to \$1.55 (according to freights outside). Manitoba, track, bay ports, No. 1 northern, new, \$1.91½; No. 2 northern, new, \$1.88½; No. 3 northern, new, \$1.83½; No. 4 wheat, new, \$1.74½; old crop, trading 3c. above new crop.

Oats.—Ontario, No. 2 white, 62c. to 64c., nominal; No. 3 white, 61c. to 63c., nominal. Manitoba oats (track, bay ports)—No. 2 C. W., 64½c.; No. 3, 63c.; extra No. 1 feed, 63c.; No. 1 feed, 63c.

Barley.—Malting barley, according to freights outside, \$1.10 to \$1.12, nominal; feed barley, \$1.02 to \$1.05, nominal.

Peas.—According to freights outside; No. 2, \$2.35 to \$2.40, nominal.

Buckwheat.—\$1.15 bid.

Corn.—An No. 3 yellow, ment.

Rye.—No. Flour.—M jute bags, \$1 bags, \$9.50; s \$9.30. Onta to sample, i

Hay.—Trac \$12 to \$13; l Straw.—Ca track, Toront Bran.—Per Shorts.—Pe Middlings.— Good Feed

Butter.—Cr squares, 43c. solids, 40c. to per lb.; sepe per lb.

Eggs.—New ing at 47c. p eggs in case l and selects, i

Cheese.—Ju new, 23c. per Honey rem with an activ selling at 12c \$2.40 to \$3 p

Poultry.—S during past w spring chicken ducks, per lb., turkeys, youn lbs. and over, 4 lbs., per lb dressed, \$3.50

Hid

City hides, cured, 21c.; c 19c.; country skins, per lb. 22c.; sheep sk skins and pelts per lb., 38c.; \$7; No. 2, \$5 to 46c. per lb. to 38c. per lb. solids, 7c. to

**Wholesale**

Potatoes ar wholesale mar the New Brun \$2.25 per bag per bag; Princ Westerns, \$2

Turnips we and declined s 90c. per bag.

Parsnips we selling at 40c. and \$1.35 per Carrots rem at \$1.25 per l

Cabbage kep Cauliflowers quantities and dozen.

Tomatoes st but were gen selling at 12½ some fairly g per 11 qts.

Canadian gra good ones bring basket; poor on basket.

British Colum and sold at \$1 sack.

Celery impro ford variety sel case; Brighton per dozen bun

California ga heavily, the To per case; Empe

California le selling at \$6.75

Oranges rem desirable sizes others going as

**Chee**

Montreal, fin easterns, 22c.; Hill, white, 22

Victoriaville, 21 Iroquois, high no sales. All St. Hyacinthe, specials 22c.; to 21½c.

Corn.—American (track, Toronto) No. 3 yellow, new, 98c., December shipment.

Rye.—No. 2, new, \$1.25 to \$1.27. Flour.—Manitoba first patents, in jute bags, \$10; second patents, in jute bags, \$9.50; strong bakers', in jute bags, \$9.30. Ontario, new, winter, according to sample, in bags, \$8, track, Toronto.

Hay and Millfeed.

Hay.—Track, Toronto, No. 1, per ton, \$12 to \$13; No 2, per ton, \$10 to \$11. Straw.—Car lots, per ton, \$8 to \$9, track, Toronto. Bran.—Per ton, \$30. Shorts.—Per ton, \$32. Middlings.—Per ton, \$34. Good Feed Flour.—Per bag, \$2.50.

Country Produce.

Butter.—Creamery, fresh-made pound squares, 43c. to 44c. per lb.; creamery solids, 40c. to 42c. per lb.; dairy, 38c. per lb.; separator dairy, 39c. to 40c. per lb. Eggs.—New-laid eggs advanced, selling at 47c. per dozen, in cartons; fresh eggs in case lots bringing 37c. per dozen, and selects, in case lots, 40c. per dozen. Cheese.—June, 24c. to 25c. per lb.; new, 23c. per lb.; twins, 23½c. per lb. Honey remained stationary in price with an active demand. Sixty-lb. tins selling at 12c. per lb.; one-lb. sections, \$2.40 to \$3 per dozen.

Poultry.—Shipped in very heavily during past week. Live-weight prices: spring chickens, per lb., 14c.; spring ducks, per lb., 12c.; geese, per lb., 12c.; turkeys, young, per lb., 20c.; fowl, 4 lbs. and over, per lb., 14c.; fowl, under 4 lbs., per lb., 12c.; squabs, per dozen, dressed, \$3.50 to \$4.

Hides and Skins.

City hides, flat 20c.; country hides, cured, 21c.; country hides, part cured, 19c.; country hides, green, 17c.; 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, \$1.50 to \$2; horse hair, per lb., 38c.; horse hides, No. 1, \$6 to \$7; No. 2, \$5 to \$6; wool, washed, 42c. to 46c. per lb.; wool, rejections, 35c. to 38c. per lb.; wool, unwashed, 32c. to 35c. per lb.; tallow, No. 1, 8c. to 9c.; solids, 7c. to 8c.

Wholesale Fruits and Vegetables.

Potatoes advanced in price on the wholesale market during the past week; the New Brunswick Delawares selling at \$2.25 per bag; British Columbias, \$2.10 per bag; Prince Edwards, \$2.10 per bag; Westerns, \$2 per bag. Turnips were shipped in more freely and declined slightly, selling at 85c. to 90c. per bag. Parsnips were only shipped in lightly, selling at 40c. to 50c. per 11-qt. basket, and \$1.35 per bag. Carrots remained stationary in price at \$1.25 per bag. Cabbage kept firm at \$2.25 per bbl. Cauliflowers were shipped in larger quantities and sold at \$1 to \$1.50 per dozen.

Tomatoes still came in in small lots, but were generally very poor quality, selling at 12½c. to 20c. per 6-qt. basket; some fairly good ones bringing 50c. per 11 qts. Canadian grapes were received lightly; good ones bringing 30c. to 35c. per 6-qt. basket; poor ones going as low as 15c. per basket.

British Columbia onions came in freely, and sold at \$3.75 to \$3.85 per 100-lb. sack.

Celery improved in quality; the Bedford variety selling at \$4.50 to \$4.75 per case; Brighton bringing 40c. and 90c. per dozen bunches.

California grapes were shipped in heavily, the Tokays selling at \$2.75 to \$3 per case; Emperors, \$5 per drum.

California lemons declined slightly, selling at \$6.75 per case.

Oranges remained high priced; the desirable sizes selling at \$6 per case; others going as low as \$4.75 per case.

Cheese Markets.

Montreal, finest westerns, 22½c.; finest easterns, 22c.; London, 22½c.; Vankleek Hill, white, 22½c.; colored, 22 9-16c.; Victoriaville, 21½c.; Cowansville, 21½c.; Iroquois, highest bid on board 22c., no sales. All sold on curb at 22½c.; St. Hyacinthe, 21½c.; New York, specials 22c.; average fancy, 21½c. to 21¼c.

Montreal.

Choice cattle were scarce on the local market last week. Demand was not very active, however, and was principally from packers who were anxious to obtain stock for canning purposes. Sales of canners' bulls were made at 4½c. to 4¾c. per lb., and of cows at 3¾c. to 3¾c. per lb. Common steers ranged from 5½c. to 6c. per lb.; medium quality selling at 6½c. to 7c., and good stock at 7½c. to 7¾c. per lb. Cows for butchers' purposes sold at 4½c. to 6½c., and bulls at 5c. to 6½c. Demand from the United States was very good for sheep and lambs; as a consequence the market held very firm. Lambs sold at 10½c. to 11c. per lb., and sheep at 6½c. to 7½c. per lb. Calves were in demand at 4c. to 6c. for ordinary, and up to 10c. per lb. for best. The market for hogs continued about steady, and sales of selected lots were made at 11½c. to 12c., while good hogs sold at 11½c. to 11¾c. per lb., weighed off cars.

Horses.—The market continued very dull, and dealers said that they made practically no sales during the past two weeks. Prices continue steady, however, as follows: 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; choice saddle and carriage horses sell at \$200 to \$250 each.

Dressed Hogs.—The market for dressed hogs was moderately active and prices held steady under constant demand at 16½c. to 16¾c. per lb. for fresh-killed, abattoir-dressed hogs.

Potatoes.—Although the potato market was very strong at the moment and higher prices were predicted, the news coming from Washington may affect the situation considerably and cause a decline to take place. It was stated that Washington was about to prohibit, or had already prohibited, the entry of Canadian potatoes into the United States owing to disease. The effect of such an order would be to cut off the American market so that the quantity of potatoes available for the Canadian market would be greatly increased. Meantime, car lots of Quebec potatoes were quoted at \$1.85 per 90 lbs. ex-track, Green Mountains being \$2 which is well above previous quotations. In a smaller way 20c. would be added to these prices.

Maple Syrup and Honey.—The market for syrup showed no change. Quotations for 8-lb. tins were 90c. to 95c. each; 10-lb. tins, \$1.05 to \$1.10 each, and 13-lb. tins, \$1.25 to \$1.50 each. Honey was steady at 15c. for white clover comb, per lb., 12½c. to 13c. for brown clover comb and white extracted, and 10½c. to 11c. for brown extracted. Buckwheat honey was 9c. to 10c.

Eggs.—The price of eggs continues to advance week by week, reference being now more particularly to new-laid eggs. These were quoted at 50c. to 52c. per dozen, while so-called fresh eggs were 48c. No. 1 selected were firmer at 39c.; No. 1 candled, 35c., and No. 2 candled, 31c.

Butter.—The market for creamery experienced another advance, owing largely to continued demand from Great Britain. Finest creamery was quoted at 42c. to 42½c. wholesale, while fine quality sold within ½c. of these prices. Undergrades were quoted at 40½c. to 41c., and dairies at 35½c. to 39c., according to quality.

Cheese.—At auction No. 1 white cheese sold at 22 13-16c., and No. 3 white at 21 11-16c. Western cheese was firmer here at 22¾c. to 22½c. for finest colored, and ¼c. less for white. Eastern colored was 22c. to 22½c., and white ½c. less.

Grain.—The market for oats was very strong and prices advanced. No. 1 Canadian Western oats were 68c.; No. 2 being 67½c.; No. 3, 66c., and No. 2 feed, 65c. per bushel, ex-store.

Flour.—The continued advances in the wheat market have brought about further advances in flour. Manitoba first patents were \$10.10 per barrel; seconds being \$9.60, and strong bakers', \$9.40 per barrel, in bags. Winter wheat flour was firm at \$8.90 to \$9.20 for 90 cent. patents, in wood, and \$4.25 to \$4.40 per bag.

Millfeed.—There was no change in this market, bran selling at \$28 per ton, in bags; shorts being \$31; middlings, \$33; mixed mouille, \$36, and pure grain mouille, \$38 per ton, in bags.

Baled Hay.—Hay was about the only product available at reasonable prices;

No. 2 baled was \$13 per ton; No. 3, \$11.50, and clover mixed, \$10.50 per ton, ex-track.

Hides.—Lamb skins have advanced further and were \$2.10 each, being a new high record. Calf skins were 1c. higher, being 32c. per lb. for No. 1, and 31c. for No. 2. Beef hides were steady at the recent advance, being 24c. for No. 1; 23c. for No. 2, and 22c. for No. 3. Horse hides advanced in a striking manner, and were \$4 to \$5 each. Rough tallow was 2½c. per lb., and rendered 7½c. to 8c. per lb.

Buffalo.

Cattle.—Offerings of cattle were liberal at Buffalo last week, but the supply ran in the main to a medium, fair and common kind, there being a marked scarcity of real choice shipping and butchering cattle of any class. Killers here comment on the fact that never within their experience in the trade has there been so few well-finished cattle coming to market.

Shipping Steers.—Choice to prime natives, \$9.50 to \$10.25; fair to good, \$8.25 to \$8.75; plain, \$7.50 to \$8; very coarse and common, \$7 to \$7.50; best Canadian, \$8.40 to \$8.65; fair to good, \$7.50 to \$8; common and plain, \$7 to \$7.25.

Butchering Steers.—Choice heavy, \$8.25 to \$8.50; fair to good, \$7.50 to \$8; best handy, \$7.75 to \$8.50; fair to good, \$6.75 to \$7.50; light and common, \$6 to \$6.50; yearlings, prime, \$9.50 to \$10.25; fair to good, \$8.50 to \$9.

Cows and Heifers.—Best handy butcher heifers, \$7.40 to \$7.65; fair butchering heifers, \$5.75 to \$6.25; light and common, \$5 to \$5.50; best heavy fat cows, \$6.75 to \$7; good butchering cows, \$6 to \$6.50; medium to fair, \$5 to \$5.50; cutters, \$4 to \$4.50; canners, \$3 to \$3.75.

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

Stockers and Feeders.—Best feeders, \$7 to \$7.15; common to fair, \$5.25 to \$5.60; best stockers, \$6.50 to \$7; common to good, \$5 to \$5.50.

Milchers and Springers.—Good to best, in small lots, \$80 to \$100; in carloads, \$70 to \$75.

Hogs.—Prices last week, notwithstanding the liberal supply, were held well above the \$10 mark. Hogs weighing up around 200 pounds were very scarce, and these kinds have been outselling the 160 to 170-pound kinds by from fifteen to twenty-five cents.

Monday a few good hogs brought \$10.25, but bulk of the receipts ran toward the York weights, and general run of sales were made at \$10.10. Tuesday the York weights sold at \$10 and \$10.10, bulk \$10, and some of the better weights ranged from \$10.15 to \$10.25; Wednesday's market was steady to strong; Thursday prices were strong to a dime higher, and Friday's market was steady to a dime lower or about the same as Wednesday, Yorkers going from \$10 to \$10.10, with some better weights fetching \$10.15 and \$10.25. Monday pigs sold at \$9.25, and before the week was out buyers got those weights down to \$8.75. Roughs, \$9.25 to \$9.50, and stags, \$8.50 down. Receipts last week were 46,000 head, as compared with 47,263 head for the week before, and 62,600 head for the same week a year ago.

Sheep and Lambs.—Market on lambs last week was pretty uniform. Monday tops sold at \$10.75; Tuesday's trade was steady; Wednesday best lots ranged from \$10.50 to \$10.65; Thursday prices were a dime higher, and Friday's trade was steady, tops fetching from \$10.60 to \$10.75. Monday cull lambs sold up to \$9.75, and from Tuesday on they ranged from \$9.50 down. Sheep weakened as the week advanced. Top wethers could not be quoted above \$8, and Friday, top ewes, kinds that sold Monday from \$7.25 to \$7.50, were hard to place above \$7. For the last week receipts totaled 27,700 head, being against 23,987 head for the week before, and 29,800 head for the same week a year ago.

Calves.—Market showed considerable improvement last week. Monday tops landed at \$11.50 and \$11.75; Tuesday prices were a quarter higher; Wednesday values showed a further gain of fifty cents; Thursday bulk landed at \$12.50, few \$12.75, and Friday, which was the high day of the week, majority were placed at \$13. The fore part of the

THE ROYAL BANK OF CANADA

Table with financial data: Capital Authorized - \$ 25,000,000; Capital Paid Up - 11,785,000; Reserve Funds - 13,236,000; Total Assets - 214,000,000.

HEAD OFFICE: MONTREAL

Branches throughout every Province of the Dominion of Canada

Accounts of Farmers Invited Sale Notes Collected

Savings Department at all Branches

week culls sold from \$9 down, and on Friday's market some on this order were placed as high as \$10.50. Friday's receipts included around 400 head of Canadians, and they sold from \$5 to \$5.25 for the grassers, and on up to \$12.50 for the top veals. Offerings the last week were 2,600 head, as against 2,789 head for the week previous, and 2,350 head for the same week a year ago.

Chicago.

Cattle.—Beeves, \$6.75 to \$11.75; western steers, \$6.40 to \$9.75; stockers and feeders, \$4.65 to \$7.85; cows and heifers, \$8.50 to \$9.50; calves, \$7.50 to \$11.50.

Hogs.—Ten to fifteen cents lower; light \$8.60 to \$9.55; mixed, \$9.05 to \$9.80; heavy \$9.10 to \$9.80; rough, \$9.10 to \$9.25; pigs, \$6.25 to \$8.25.

Sheep.—Lambs, native, \$8.40 to \$10.90.

Gossip.

The Price of Butter Fat.

The price paid for butter-fat by the Toronto Creamery Company, regarding which mention is made in their advertisement, should read "42 to 46 cents per pound fat" instead of 40 to 45 cents.

Sale Dates.

Nov. 9.—W. H. Littlefield, Brantford, Ont., Aberdeen Angus, Brantford, Ont. Nov. 28.—Elgin County Pure-bred Breeders Association at St. Thomas, Dairy cattle.

Dec. 6.—Southern Counties Ayshire Breeders' Club, Tillsonburg, Ayrshires. Dec. 5.—J. C. Boeckh, Willowdale, Ont., Holsteins.

Coming Events.

Nov. 21.—Ontario Vegetable Growers' Convention, Parliament Buildings, Toronto.

Nov. 22 and 23.—Ontario Horticultural Association Convention, Parliament Buildings, Toronto.

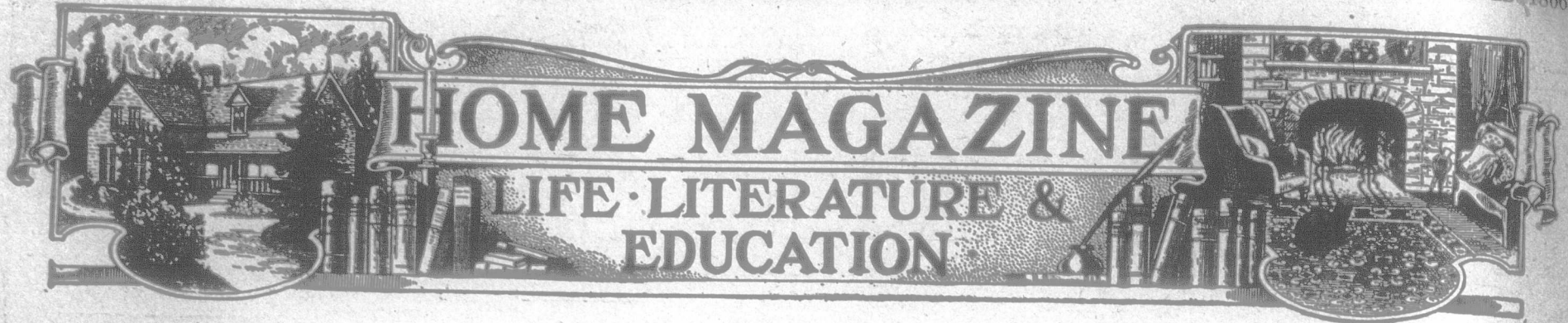
Dec. 1 to 8.—Ontario Provincial Winter Fair, Guelph, Ont.

Dec. 2 to 9.—International Fat Stock Show, Chicago, Ill.

Dec. 8 to 9.—Toronto Fat Stock Show, Union Stock Yards, Toronto.

Canadian Judges at the International.

Canada will be represented at the forthcoming International Live Stock Exposition at Chicago by several well-known judges. In the cattle department, Prof. H. Barton, Macdonald College, Que., will judge milking Shorthorns. J. D. Brien, Ridgeway, Ont., John G. Lethbridge, Glencoe, Ont., and C. B. Armstrong, Teeswater, Ont., will judge Cotswolds, Lincoln and Leicester sheep respectively. Robt. Graham, Toronto, will assist in judging the Percherons Belgians and Drafters, while Alex Galbraith, Edmonton, Alta., will assist in making the Shire awards. An innovation this season will be two judges from South America. Carlos M. Duggan and Pedro T. Pages both of Buenos Aires, Argentina, will judge the grade and cross-breed steers and breeding Shorthorns respectively.



Rabindranath Tagore The famous Hindu Poet

Who is now lecturing in the United States. He was awarded one of the Nobel Prizes for Literature, but spent the entire \$40,000 on a school in India in which he is interested.

### East and West.

BY RABINDRANATH TAGORE.

[The following poem by Rabindranath Tagore, who was awarded one of the Nobel prizes for literature, gives a glimpse into the Eastern point of view as regards "East and West." Speaking a short time ago in Japan, Tagore used these words: "In your land the experiments will be carried on by which the East will change the aspects of modern civilization, infusing life in it where it is a machine, substituting human heart for cold expediency, not caring so much for power and success as for harmonious and living growth, for health and beauty."]

The blood-red line  
That crimson the Western sky  
Is not the radiant red  
Of the rays of thy soothing dawn.  
It is rather the terrible fire of the dying day.

On the seashores of the West  
The funeral pyres are emitting  
The last flames  
Caught from the torch of a selfish and decadent civilization.

The worship of energy  
In the battle fields or factories  
Is not worshipping Thee  
The Protector of the universe.

Perhaps the all-embracing rays  
Of Thy light of joy  
Are lying hidden on Eastern shores  
With patience  
Under the veil of humility  
In the darkness of silent sorrow.

Yes, the rays of Thy light of joy  
Are lying latent  
In the East  
To liberate  
The Soul of the world.

## Among the Books

### The New China.

(Continued)

["The New China," By Henri Borel, T. Fisher Unwin Pub. Co., Adelphi Terrace, London, Eng.]

One of the first strolls that Mr. Borel took in Peking, led him to the Legation Quarter. Here two things struck him: first that the entire district given over to the foreign legations was practically a fortress, with walls and glacis,—then the ugliness of the buildings. "Everything secluded, separated, suspicious, hostile," he says. "They would scarcely live farther away from the Chinese

national mind, these ambassadors, if they had established their Legations at the North Pole."—And, in regard to the buildings, "what I, as an artist, cannot forgive my white brethren is that they have made this European Ghetto in Peking so ugly and commonplace. Almost every Chinese cottage in Peking, even the smallest and poorest, has some beauty of line and color, but nearly every European building in the Legation Quarter is a vulgarity. . . . A dull, crude, commonplace city of barbarians, shapeless, colorless, lacking in distinction, huddled in the midst of the exquisite old Chinese architecture which makes Peking a magnificent dream."

And so he launches into a description of the city.

### The Forbidden City.

Peking, he explains, consists of three divisions: the outer or Chinese city just within the outer walls; the Tartar city, inside of a second wall; and the Imperial city in the heart of all, doubly walled and guarded by watch-towers. At the time of which he wrote the last Emperor was still alive, "The Son of Heaven," and resided in this inner precinct with the ladies of the court, and the old dowager-empress, one of the most remarkable women who ever lived.

Through these concentric cities, from tunnel-like passages in the walls run great avenues, bordered by wonderful temples and adorned—accentuating the perspective—with colossal arches or gateways. Each avenue ends at a closed gate, which marks the boundary of the "Holy of Holies, the heart of hearts, the Forbidden City" which then enshrined the sacred person of the Emperor.

Mr. Borel's description of this kernel of Peking is picturesque: "Whereas the three outer walls of the Chinese, the Tartar and the Imperial City are sombre and dark, striking one with dread and terror, the wall of the Forbidden City, far from being warlike, is a delicate pink, like the rosy hue of blossoms, and is covered with bright tiles of a golden color, shining brilliantly in the sun. All buildings in the Forbidden City are covered with these gold-colored tiles. . . . and on each corner of the wall there is a magnificent pavilion also covered with golden tiles. This pink wall and the glittering golden tiles impress one like something in a fairy story. In the clear, pellucid sunlight, under the cloudless sky of Peking, stands this Forbidden City, glimmering like some legendary city of enchantment."

—Symbolic of mystery and power, and yet even as he wrote the foundation of the throne was tottering, and the revolution simmering which was to transform the great Chinese empire with its Manchu overlords into a republic.

### The Streets and Houses.

The great surprise of Peking for the foreigner, Mr. Borel notes, is its long wide streets, outlined with fine, stately *p' ai-lous* or three-story arches of marble or wood. Some of these streets still remain essentially Chinese, although everywhere electric lights and other western conveniences are being installed; other streets show European influences more markedly. Along the Chinese streets, the houses are unlike each other. "Very rarely," he says, are two adjacent ones similar; most of them are old and decayed, but what splendor of color, what outlines! The carving of the doors, the posts, the window-frames, the roof-work, is fine and sometimes as delicate as lace. The roofs—one notices this particularly when looking from the top of a wall—are very slender, in the form of tents,

a remembrance and relic of nomadic times. They look like barges, slowly floating through the sky; the signs and shop-posts flame in gold on black or red, and all the houses are painted in harmonious colors. If one looks down from a wall, one beholds the rosy walls of the Forbidden City with its brilliant yellow tiles and everywhere the green and blue *p' ai-lous* and pavilions of gold and red and blue, roofs of red and brown, white pagodas, grey towers with borders of old-gold, and all these colors seem to sing in the light. Yes, that is the right word, Peking is a town singing in color."

Along the streets outside of the Imperial City moves a motley crowd—foreigners of every nation; native Chinese in the long blue national costume; Mandarins in carriages with glass windows; solemn riders on donkeys; caravans of camels; with coolies darting about everywhere with rickshaws.

"In the street," notes the writer, "the Chinese are the most orderly people in the world. They do not push. There is not in the whole of Peking a street-boy who would throw mud, or jeer at a foreigner."

When night falls all the gates of the city are closed except two, the Ch'ien Men between the Chinese and Tartar cities, and the Hsiao-shui Men, a very small water-gate giving admission from the Legation quarter to the station of the Tsientsin Railway, and so, with the dusk, Peking is cut off from the outer world until next morning.

### Modern Innovations.

Among the modern innovations in this ages-old city, one of the most striking was a theatre. "It was hardly conceivable to me—that huge, Russian circus filled with Chinese up to the rafters. How the modern, formerly so bitterly hated, attracts in Peking now! Not only the cheaper seats were full, but also the boxes, where Chinese and Manchus of the upper classes sat with their ladies. So, Chinese ladies and girls show themselves not only in hotels, but also in public places of entertainment, whereas a few years ago they could not appear in public under penalty of being taken for prostitutes. . . . In all the boxes ladies and gentlemen sip tea; small teapots and dishes with biscuits and fruit are handed round."—Moving pictures have also become very popular in China. . . . Mandarins and rich merchants in the Hotel des Wagons Lits, it is noted, do not use chopsticks, but knife, spoon and fork, "and are entirely at their ease among the 'foreign devils.'"

### Temples.

Notwithstanding the reform movement in China, and the innovation of western customs, even to the turning of many temples into schools by order of the Emperor, Mr. Borel still found numbers of the old temples in which Chinese rites and ceremonies, ages old, were still performed.

Among the most interesting of these was the Lama Temple, and one would like to quote in full his description of this weird place, with its occult atmosphere, rich and ancient yellow silk hangings, dim lights, chanting priests, and three immense Buddhas sitting on gilded altars, "with their strange smile full of ecstasy." In front of the Buddhas, he tells, there are five marvels of Pekingese art, immense altar-pieces of antique cloisonné, a sacred secret lost forever, "golden, red, green and white, on unique deep blue." . . . And last of all he sees the northern temple hall, the sanctuary of a wild and furious god, a horrible vision. As he leaves this spot "Bang—bong—pong sounds the humming gong, vibrating in faint ethereal waves. A wonderful never-to-be-forgotten tone," and he sees presently a wonderful procession of priests in

violet and flaming orange, and the scene closes amidst the clanging of strange music, the singing of mystical hymns and the wailing of prayers.

One would like to quote, also, his descriptions of the Yellow Temple, the Temple of the Five Pagodas, and the Temple of Heaven, with its towering pure white altar in the midst of a green field, but it must suffice, perhaps to tell a little of what he says of the Temple of Confucius with its famous Hall of the Classics. No gorgousness here, everything plain, simple and severe like the serene wisdom of the great Eastern Sage himself: "I went on under the old sung-trees, and came at last to the temple structure. The roof is a square mosaic, gold and green; the many wooden pillars are red. The first thing noticeable is a red wooden niche draped in imperial yellow cloth, between two pillars at the back of a square recess in the wall; it is touching by reason of its plainness. In this niche stands the simple wooden soul-tablet of Confucius, lacquered in vermilion." (The soul-tablet is supposed to contain some part of the soul of the deceased.)

Near by, in the Hall of the Classics—a group of immense temple-like halls in a large garden, he found the texts of Chinese classics engraved on stone tables: "the wisdom of an empire engraved on two hundred stone tables in a palace of beauty."

Another interesting chapter is devoted to the strange and brilliant funeral of the Dowager Empress, that terrible and wonderful woman who, wedded to old traditions and old customs, holding even the Emperor, her nephew, under her power, first fought the incoming of the West, even to instigating the horrible attempt to exterminate all Europeans, then, seeing that change was in the air and too strong for her, turned right-about-face and "introduced all the reforms."—More of her in a later issue.

For the present we must close with a few of Mr. Borel's comments on the modernizing of China.

### The Modernizing of China.

Two of the greatest influences in the modernizing of China have been the unification of language—the introduction of Mandarin Chinese everywhere to supplant the many dialects—and the running of railways, both of which influences have tended to a growth of national spirit. The work in railway building even at the time upon which he finished his book, in 1909, had been pushed to a remarkable extent. He found that they were being built by Chinese engineers and workmen even over very rocky and mountainous country, sometimes necessitating the boring of tunnels nearly a mile in length, and the building of bridges up to 400 feet in length.

Some of the most memorable reforms were made, despite the Dowager Empress, by the Emperor Kung Hsu, the most sweeping of these the edict by which, with one stroke of the brush, he destroyed the entire ancient system of education, and issued the order to demolish ancient temples full of idols and build schools from the materials—a most significant change. Another, equally so, has been China's strong fight against opium, so long the curse of the Empire.

Nor must the fact be passed over, that in China the spirit of reform has worked chiefly from below upward. It is among the masses that the ferment has worked, for the most part, and so the foundation which is being laid has the surest basis of solidity.

True, there are still many foolish superstitions in China, much cruelty, conditions that are revolting, and progress is hindered by a tremendous burden of debt. Even at the time

of this writing conditions there are in a state of and misrule rampant, confidence but the fact the condition ago, gigantic and are being

Pondering Borel asks: "What four hundred a to a loftier co be a mutual in is good between And, he asks aspect be cha of 400,000,000 into the ment America? He be broken up? how much new the comminglin both?"

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A sailor who was secured to music between picture shown in the Garden cudgeled his br his repertoire, I any piece exactl

"Play up, pla Chaplain.

Suddenly an sailor, and to t Chaplain and the the gramophone

"There is only for me."—New

of this writing the word comes that conditions throughout the vast area are in a state of chaos—weak government and misrule in the provinces, anarchy rampant, confused finances, general lack of system and respect of authority, but the fact remains that, considering the condition of China twenty years ago, gigantic strides have been taken, and are being taken.

Pondering on all these things, Mr. Borel asks: Will this great people of four hundred and thirty millions awaken to a loftier consciousness? Will there be a mutual interchange of that which is good between the East and the West? And, he asks, "How will the world's aspect be changed when the thoughts of 400,000,000 of Easterns come floating into the mental sphere of Europe and America? How many prejudices will be broken up? How much new wisdom, how much new beauty will be born from the commingling of what is essential in both?"

Yet he foresees a danger: "It cannot be foreseen what may be the outcome of the disturbed, fermenting China of to-day. Hatred of the foreigner caused by Western aggressions, by the ignorance and excitement of the Young Chinese Jingoes. . . may culminate in a paroxysm compared with which the Boxer revolt may seem child's play. . . Mutual understanding is the only safe-guard. The Chinese must give up his wrathful distrust, his proud feeling of superiority. He must be taught to understand that not all Westerns are 'foreign devils,' that there really are Europeans who understand and honor China's beauty and wisdom, who visit China for other than commercial reasons, and who desire to come into contact with the Chinese. The Westerns must try to penetrate into the mystery of the Chinese national mind; study of sinology must be encouraged in the West at all universities, and a superior body of future diplomats and consuls must be found who will go to China, and especially to Peking, not as strangers but as reliable, competent scholars and students of the Chinese country, people, and language."

There may be troublous days between, yet Mr. Borel, with the vision of the mystic looks far past. Speaking of the dead formalism into which China fell after her ancient age of aliveness, when wisdom meant everything, war nothing; he says, and with this may we conclude: "Nor ought it to be forgotten that what was highest law and highest truth in remote centuries many thousand years ago, when the race was in its bloom, will also become law and truth when a new and superior race arises. What is now old and decayed will be young and new once more. The epoch of materialism will pass, the world will no longer be possessed by the cursed delusion of egotism, selfishness, and sensuousness. Future days will be pregnant with the spiritual beauty of which the conception is already initiated. Then wisdom will once more hold its imperial sway over humanity, blossoming forth in beauty, as it did in the grey antiquity of China."

The best of the past joined to the best of the future—this will open the doors of the real Golden Era for humanity.

**Smiles.**

Young Mr. Hallowell was not much of a preacher, but, much to his own surprise and everybody else's, he was appointed Chaplain on a battleship. He desired to amuse as well as instruct his men, and to that end he arranged a magic lantern lecture on Bible scenes and incidents.

A sailor who possess a gramophone was secured to discourse appropriate music between the slides. The first picture shown was Adam and Eve in the Garden of Eden. The sailor cudged his brains and ran through his repertoire, but he could think of any piece exactly appropriate.

"Play up, play up," whispered the Chaplain.

Suddenly an inspiration struck the sailor, and to the consternation of the Chaplain and the delight of the audience the gramophone squawked out:

"There is only one girl in this world for me."—New York Times.

**Hope's Quiet Hour.**

**All Glorious Within.**

The King's daughter is all glorious within. Her clothing is of wrought gold. She shall be brought unto the King in raiment of needle work.—Psalm 45:13, 14.

A friend of mine once told me that when she was nursing in the Toronto General Hospital many accident cases were brought in whose outer clothing was very showy and even expensive, but that did not prove that the under-clothing could bear inspection. Often it was found that a woman dressed in silk, with handsome feathers in her hat, had only filthy rags beneath the outer finery. But a true "King's daughter"—one who has the beautiful

daughter of the King of kings will not be satisfied with any outward appearance of holiness which is not the outward visible sign of purity within. God requires truth in the "inward" parts, and only those who are pure "in heart" are able to see the Vision of His Face.

The white robes of the soul are not to be kept only for wearing on Sunday. Holy thoughts and high ideals should not be wrapped in tissue paper and packed away for special occasions. We know the sun can whiten discolored garments; so the stained robes of the soul—wetted with tears of penitence for sin—will grow white and clean if they are continually bathed in the light of The Sun of Righteousness.

"Let no earth-stain thy robe of glory mar: Wrap it around thy bosom undefiled: Yet spread it daily in the clear Heaven's sight, To be new-bathed in its own native Light."

Royal Bridegroom to His loved bride. They should be kept with jealous care, as a woman keeps the bridal dress in which she desires to stand before God's altar.

Young people make a sad mistake when they recklessly fling away their greatest treasure—their white purity of soul. They are heaping up misery for themselves, for joy can never walk hand-in-hand with wilful sin. Those who—like the Bridegroom Himself—love righteousness and hate iniquity—are, like Him, anointed with the oil of gladness above their fellows. Their garments are fragrant with "myrrh, aloes and cassia," being brought fresh each day out of the King's own wardrobe; even "out of the ivory palaces, whereby they have made thee glad."

Our Lord was very gentle towards those who were scorned by the world as "sinners," those whose sins were easily seen by everybody. But how fiercely He denounced the hypocrites! He compared the Pharisees to sepulchres, whitewashed on the outside but full of loathsome decay within. They were far from being "all glorious within." They appeared to be very religious, but He sternly warned them that their long prayers were not accepted by God. They drew near Him with the lips, but their hearts were seeking the praise of men. Can we say with truth that we are always thinking of God while our lips are uttering His praises? We should be horrified at the idea of anyone offering bad money on His altar, yet we are hardly conscious of having sinned when we offer Him false worship.

We may well ask God to let His pitying eye rest upon our best deeds and finest words. Too often they are intended to win for us the praise of men. We need forgiveness for our virtues—or seeming virtues—as well as for our sins. God does not need our gifts—the riches of all the universe are His—but it is our great loss when we offer Him tarnished gold which He cannot accept. Have we never spoiled our service by seeking glory for ourselves? The widow's mite was greater than the gifts poured by the rich into the treasury—it was her all. Let us be careful how we claim to have given our "mite," lest it be really only a mite in God's sight. Her gift may have been copper on the outside, but it was "all glorious within." No wonder our Lord was glad at heart as He watched her place her golden offering in the hand of God. No one is too poor to offer the best gold. Many earthly gifts remain on earth and never reach heaven at all; they are heavily weighted with selfish ambition, and have no wings of love to mount with.

"It matters little what I drop Into the passing plate; 'Tis God's acceptance that doth make The smallest offering great."

Some day we shall be brought unto the King. Will it then be found that we are all glorious within, and that our clothing is of wrought gold? Such clothing will not grow shabby with use, but will only grow more lovely as the fires of sorrow and suffering burn the dross away. The Great Refiner is Himself regulating the furnace which is purifying His fine gold. Even in this time of world-wide trouble we may feel safe in His hands.

The King's daughter must not only be radiant and shining within—as the temple was glorious with gold and jewels, placed there for God alone—but "she shall be brought unto the King in raiment of needle-work." This outer robe is not a machine-made garment, with seams run up in a hurry, neither is it the kind of garment turned out by thousands in factories. It grows slowly, and fits the soul. Character is one of the things which cannot be hurried.

The clothing of character which the soul wears is "needle-work"—it takes many years to put in all the stitches required. Quietly, secretly, this robe of character is being woven—by hand. Each thought, word and act helps to put in a stitch. The bridal robe of righteousness is provided by the Bridegroom—that is the inner purity which we must keep sacredly as His gift of love. But the outer robe must be embroidered with many stitches of our own needle-work. We are invited to work under and with Him. What kind of a court-robe are we making, as these



**Baron Hayashi, the New Japanese Minister to Peking, with his son and daughter.**

Baron Hayashi was formerly Ambassador at Rome, and is therefore of higher rank than any of the other diplomats at Peking who are merely ministers. This unusual appointment has caused something of a sensation in the East. International Film Service.

refinement of character which proves her to be a "real princess"—may be dressed very simply and plainly on the outside; but her inner garments will be fresh, and as dainty as she can afford.

Is not this a picture of the soul's raiment? Some people are only concerned about their appearance in the sight of men. They wish to be considered religious, but seem to think it matters very little what inner garments the soul is wearing in secret—what thoughts are cherished in the temple of the soul.

If a refined woman shrinks from the vulgarity of wearing soiled and ragged underclothing, concealed by showy finery, surely one who claims to be a

If you are tempted to read a book that you instinctively feel will sully the purity of your thoughts in the slightest degree, put it down instantly, as you value the whiteness of your soul. Remember how easily a white robe may be stained, and how hard it is to get rid of the stain. Many a man and many a woman has repented bitterly the reading of an impure book in early youth,—but the images of evil, implanted in the soul by the book, are very hard to erase. They recur when least wanted, though repelled again and again.

White robes of purity—white all the way through—are the God-given wedding garments presented by the

years of waiting for the Bridegroom slip swiftly by?

We are invited to be fellow-workers with God, who is far more patient with our bungling attempts at making this "raiment of needle-work" than any mother who is teaching her little child to sew. He is ready to help with every stitch—if we seek His assistance—and says: "For I, the Lord thy God, will hold thy right hand, saying unto thee, fear not, I will help thee."

If we try to work alone we shall spoil instead of beautify our character. Why should we try to do the impossible and climb to heaven by our own feeble efforts? Even our aviators, though they fly far above our heads, can never reach the nearest star. But why should we try to clothe ourselves with the garments of righteousness when the King's own wardrobe is open to each of His sons and daughters?

Isaiah wrote:

"I will greatly rejoice in the Lord, my soul shall be joyful in my God, for He hath clothed me with the garments of salvation, He hath covered me with the robe of righteousness."

Daughters of the King have a right to use the following beautiful prayer, which was written by Bishop Brent, "O Holy God, Who hast robed me in the lily-white of maidenhood, refresh me daily with the dew of Thy blessing, and bathe me in the sunshine of Thy favor, that I may shed abroad the fragrance of a blameless life, through Jesus Christ our Lord."

DORA FARNCOMB.

**For the Needy.**

A gift of \$2.00 from "C. M." (which reached me yesterday) provided meat for the Sunday dinner of two poor families—where sickness has made life difficult. The \$2.00 sent by "Elizabeth" for some "boy or girl" was spent on warm underclothing for a delicate boy whose father has been for many months in a hospital. The \$2.00 for the blind cripple who, "though sorely tried, can count her many blessings," was received with the greatest delight—and sent out at once to give help to someone in greater need of it. My helpless friend says that all her wants are fully supplied (she can't stir from her bed) but it has been a great luxury to have two dollars to give away. She sends a message of deepest gratitude to her unknown friend for giving her this great delight of helping someone else. She is very near the "land of far distances," and is looking forward joyously to the expected angel of life—whom we usually call the "death-angel." Her face grows more and more transparent, and shines as if the glory of her radiant soul were visible through the curtain of the flesh.

I have been asked to convey to the kind Advocate readers very hearty thanks for their many gifts.

HOPE.

**Fashions Dept.**

**How to Order Patterns.**

Order by number, giving age or measurement as required, and allowing at least ten days to receive pattern. Also state in which issue pattern appeared. Price fifteen cents PER PATTERN. If two numbers appear for the one suit, one for coat, the other for skirt, thirty cents must be sent. Address Fashion Department, "The Farmer's Advocate and Home Magazine," London, Ont. Be sure to sign your name when ordering patterns. Many forget to do this.

Positively no patterns will be sold under 15 cents each, regardless of date published, owing to advance in cost of same.

When ordering, please use this form:—  
Send the following pattern to:

Name.....  
Post Office.....  
County.....  
Province.....  
Number of Pattern.....  
Age (if child or misses' pattern).....  
Measurement—Waist..... Bust.....  
Date of issue in which pattern appeared.....



8865 (With Basting Line and Added Seam Allowance) Girl's Coat, 8 to 14 years.



8973 (With Basting Line and Added Seam Allowance) Double-Breasted Blouse, 34 to 42 bust.  
8948 (With Basting Line and Added Seam Allowance) Skirt with Front, 24 to 34 waist.



8854 (With Basting Line and Added Seam Allowance) Girl's Coat in Russian Style, 8 to 14 years.



8794 (With Basting Line and Added Seam Allowance) Child's Dress, 4, 6 and 8 years.



9011 (With Basting Line and Added Seam Allowance) Gown with tucked Skirt, 34 to 42 bust.

**The Ingle Nook.**

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

Dear Ingle Nook Friends,—You have no idea what a juggle it is to know what to write to you about every week. You see it isn't quite like writing to people whom one knows personally. There are no little neighborhood comments to make or questions to ask; one has to grope about in the dark, as it were, and trust to "pot-luck" to turn up something interesting. Usually I jot down in a note-book the subjects that come up in my own mind, during my own process of thinking, and make draughts on those; but sometimes things just "happen," and sometimes they happen curiously and coincidentally.

For instance, the other day I was reading a book on a subject that was not altogether a surface ripple, and, presently, found that I was having a time of my own to keep my mind down to it at all. While my eyes were staring at the page, the real I was rambling all over creation, thinking of a hundred quite unrelated things. Over and over again I pulled myself together and returned to my reading, and over and over again found that I was off on another jaunt. Then I began to wonder whether I needed a bit of fresh air, or some exercise, or what. It seemed so hard to "keep together." But I was perfectly well and normal, so came to the conclusion that there was nothing in the world the matter but a firm buckling down of will-power, and for my encouragement I remembered that a Doctor of Philosophy once told me that often, when reading, he found himself obliged to renew his determination to concentrate at intervals of about three minutes.

For a while I did likewise, then I reached for my note-book and scribbled down the word "Concentration." Next day I chanced on an item from an investigator among the insane which stated that one of the marked characteristics of the patients is an utter inability to concentrate. So I "smiled a smile," reached for my note-book again, and underlined the word "Concentration."—The argument of the writer was that normal people should fight any tendency to lack of concentration with all the weapons possible, not because of any fear of insanity, but because it is the part of wisdom to travel just as far from mental aberration as possible.

Well,—this morning, on opening my book, there stood the subject, underlined, and I picked up a pencil and poised it for a moment wondering how I should begin. You know, as in everything else, the beginning and ending of writing is the hardest; once you are in full swing you go along by sheer impetus, but happy you are if you know just how to make the start and bring up the finish. To resume,—as I sat there with pencil poised, a scrap of paper fell down from somewhere on my desk, disturbed from its resting-place, probably, by a breeze from the open window. It was a torn-off scrap, with both beginning and ending minus, not a syllable to indicate the writer or the magazine in which it had been published. I took it up with the intention of throwing it in the wastebasket and glanced at it casually, then read it through almost with a thrill. Here is what I read:

"Think strongly. Shun aimless thinking. There is nothing so destructive to strong character as giving way to wandering, purposeless thinking. Do you realize that thought force is the strongest force in the universe? Think, then, of the force that is being allowed to dribble away in utter waste by careless, aimless wandering thoughts.

"Don't think aimlessly. Pull yourself up and be determined to think to some purpose. If you have not a philosophical mind and cannot fix your thoughts independently on some intellectual, religious or ethical problem, take up some special study, read Emerson, Ruskin, Carlyle, Homer, Shake-



# EATON'S OFFER

## SMART AND SEASONABLE SUITS OF EXCEPTIONAL VALUE

Here are a few of the many **Big Value** items selected from our Fall and Winter designs. These styles should meet the approval of the most discriminating buyers, as the designs and quality are leaders in their respective lines. Our large purchase before the advance in prices enables us to make you this exceptional offer. Most of these items could not again be duplicated at these specially low prices. Would particularly recommend your prompt order, as supply is limited.



### MODERATELY PRICED COAT of MOHAIR

**82-100.** Black Mohair with a wavy Persian curl, fashions this fascinating Coat. The back hangs on graceful folds, and the front fulness is held in place by a buttoned belt. Extra large sailor collar is trimmed with plush band and buttons, and may be worn buttoned high, as illustrated, or in stand-up turn-down style, and also open to show revers. Roomy Raglan sleeves are trimmed with plush bands and buttons, and similar buttons fasten front and belt. Coat is lined with excellent-wearing Sateen and measures 44 inches in length. Bust 32 to 46. Price..... **12.50**



### ATTRACTIVE SERGE SUIT

**82-154.** Every detail of this Worsted Serge Suit is most satisfactory, the material is extremely serviceable, the trimmings are pretty and appropriate. The fashionable skirt is cut with front panel, which at the top shows a shaped design trimmed with buttons. Collar may be worn showing revers, buttoned high, or with large square collar effect. Three-piece belt, collar, turn-back cuffs and flare on coat are all prettily trimmed with silk braid and fancy bone buttons. Coat is 34 inches long, has slash pockets, and is lined with milk serge, and warmly interlined. Colors Navy or Black. Bust 32 34 36 38 40 42. Skirtband 24 26 28 27 29 30. Skirt lengths 37, 39 and 41. Price..... **15.00**



### LOW PRICED SMART WARM COAT of CURL CLOTH

**82-121.** Made of stylish Curl Cloth in a modish, semi-fitting style. Convertible collar is made of fur fabric and when worn open shows revers. A handsome velvet and cord frog forms an ornamental closing at the front. Patch pockets have turn-over button-trimmed flaps and the long sleeves show turn-back cuffs. Good quality English Sateen lines this coat throughout. A splendid warm, natty coat at a very small price. Colors Black, Navy, Holland Blue, Taupe. Bust measurement, Length 45 inches. Price..... **10.00**



### FASHIONABLE AND SEASONABLE BLACK LAMB CLOTH

**82-144.** This appealing model of Black Baby Lamb Cloth closely resembles a fur coat. It embodies this season's most popular style ideas, for it is slightly semi-fitting, with full flaring skirt falling in graceful ripples. Manchurian Wolf fur forms the collar, and the bands on cuffs and bottom of the skirt. Handy slash pockets are finished with stitched welt. Lined throughout with satin finished Venetian fabric, and interlined to waist for extra comfort. A coat that will long be worn with pleasure and satisfaction. Sizes 32 to 46 bust. Length 45 inches. Price. **24.50**



### SPLENDID VALUE IN A ZIBELINE COAT

**82-930.** Stylish Zibeline, a popular fabric, is used for this belted Coat, designed with a modish flare. The fulness is controlled by a button-trimmed, all-around belt. Front fastens snugly with durable elastic loops and velvet buttons under the convertible storm collar, or may be left open to show revers. Good wearing sateen lines this warm coat throughout. A moderately priced model that will give splendid service. Colors Black, Brown or Green. Sizes 32 to 46 bust. Length 50 inches. Price..... **9.75**



### RICH-LOOKING FUR TRIMMED COAT

**82-148.** This handsome model of Silk Plush is very stylish and decidedly serviceable. A delightful feature is the animal stole of Opossum, which trims the collar, or may be worn buttoned becomingly close to the throat. All-round belt is made in four sections and, like the front, fastens with large buttons and loop of self. Excellent satin-finish Venetian lines this coat. Black only. Sizes 32 to 46 bust. Length 48 inches. Price..... **22.95**



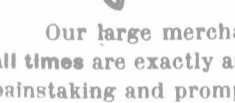
### A HANDSOME FUR - TRIMMED MODEL

**82-164.** This fur-trimmed model is made of fine will serge in a belted design with a fashionable swirl. The wide two-way collar in sailor effect and extra length on coat are both favorite ideas of Fashion. Black Coney is the soft finish on convertible collar, sleeves and skirt of coat, which fastens with bone buttons. All-round belt is finished with handsome metal buckle and the 35-inch long coat is lined with excellent quality Sateen. Graceful skirt has fashionable flare and is made in strictly tailored style. Colors Green, Navy, Brown or Black. Bust 32 34 36 38 40 42. Skirtbands 24 26 28 27 29 30. Choice of skirt lengths 37, 39 or 41 inches. Price..... **15.95**



### STYLISH AND MODERATE

**82-130.** There is a jaunty air about this Suit of Worsted Serge. The two-piece buttoned belt and novelty patch pockets give this model a natty air. Silk braid and buttons with convertible collar, in sailor effect. Large bone buttons effect the front closing, and smaller ones appear on the pointed half-cuffs of the set-in sleeves. Coat measures 32 inches in length, is warmly interlined, and lined with Sateen. Flare skirt is made with overlapping front seam, and has gathers concealed under button-trimmed belt at the back. Colors Black or Navy. Bust 32 34 36 38 40 42. Skirtbands 24 26 28 27 29 30. Skirt lengths 37, 39 and 41. Price..... **12.95**



### SPECIAL RAINCOAT VALUE

**82-173.** A swagger model of Rubberised Poplin that is so smart it might also serve for motor or driving as well as a raincoat. It is made on loose, full lines, has roomy patch pockets with protecting flaps, and a convertible collar which may be worn buttoned high as illustrated, or open to show revers. The small fancy bone buttons on the simulated cuffs on the set-in sleeves match the larger ones of the front fastening. Seams are all stitched and cemented and under arms have ventilators. Fawn color. Sizes 32 to 46 bust measure. Length 53 inches. Price..... **4.95**



### SPECIALY PRICED COAT FOR A STOUT WOMAN

**82-133.** Specially designed Coat, of warm Black Beaver Cloth, is cut on fashionable but inconspicuous lines, with large velvet storm collar which may be worn as illustrated, or fastened up close to the neck. The three-piece belt is cleverly arranged so that by means of loops and buttons the coat may be adjusted to the wearer's requirements. Belt will transform coat into a most useful general outdoor garment. Large bone buttons are used on this 45-inch long coat. Bust 34 to 46. Price..... **12.50**

Our large merchandise Catalogue is a veritable treasure house, wherein may be found "just what you need" at just the right price. All goods at all times are exactly as represented. The ever-increasing number of satisfied customers is the best evidence of EATON values, and of the intelligent, painstaking and prompt service, assuring you every satisfaction.

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THE T. EATON CO LIMITED  
TORONTO CANADA



## A TEAPOT TEST

will convince you of its sterling merit. Let us send you a trial packet at the same price you now pay for ordinary tea. Black, Mixed or Green. Address Salada, Toronto.

B 192

If you are paying the duty from motives of patriotism, your course is commendable, but if you desire the most for your money, you are going the wrong way about it. In sound, in workmanship, in quality of wood, in finish, too, the Phonola offers you all that you can get in any foreign-made equivalent at a considerable reduction in cost. It has exclusive features: (1) The concealed crank, (2) Plays all disc records, (3) In different woods to match your furniture. Prices run from \$15 to \$250.

**Model Prince \$175**

Send for free illustrated catalogue, and receive also a copy of our new catalogue of records.

Agents wanted in unrepresented towns. Our sales-promoting plans offer a splendid opportunity to responsible dealers. Write for details.

The Pollock Manufacturing Company Limited, Kitchener, Ontario

speare—or the works of any other great mind.

"Select some sentence for special thought, think of it while in your carriage, in the train, in the street car. Don't allow yourself to wander off into useless day-dreams—day-dreams are good if they are dreamed to some purpose—build castles in the air if you will, but don't allow them to be airy castles, blown away by the first puff of wind.

"Build them on sure foundations; build them with strong materials; build them for a purpose.

"Think of one thing at a time. Don't scatter your mental forces. Fix your mind intently on the duty in hand, the subject you have chosen, and for the time being shut out all others.

"Cultivate the highest and best, and you will soon realize a life that is never lonely, never alone."

—So now *don't* things sometimes happen curiously, and coincidentally? Here was my little sermon all preached, dropped into my hands like the bread which, in the beautiful old poem, the ravens brought to Elijah!

I have given it to you, and I hope you will, with me, say a hello and a thank you to the unknown writer.

\*\*\*\*\*

A few evenings ago we, here in London had the privilege of listening to a very brilliant lecture on "The New Movement in Canadian Poetry." The lecturer took as the pivot for his talk the point of view that whereas in the earlier Canadian poets the tendency of the childhood of a nation to glorify its external things is manifest, the Canadian poets of to-day, spokesmen of the coming maturity of our race, are singing rather of psychological things. Their work is subjective rather than objective. They are more universal, less local, than their brothers of yesterday.

To be more concrete: Yesterday the poets—Lampman, for instance, and Carman and Roberts in their youthful days—were more purely nature poets. They extolled—and beautifully, too,—our plains and mountains, our rivers and lakes, our mists, and rains, and hot sunny days, our deep, dark forests, and our fragile wild flowers. But to-day the song is, rather, of the human soul, of love and faith and inspiration. Incidentally, the lecturer spoke in terms of highest praise of the work of one of these modern poets, Dr. Albert Watson, of Toronto.

Think a bit about it, and I am sure you will say that the lecturer was right. Every nation, as every person, passes through a child stage, and its poets put its thought into song. By and by comes a time when it begins to "put away childish things." Indeed, that seems to be the great work for the future—putting away childish things, for even yet no nation in all the earth has come to full maturity,—although all are on the way. As yet we are held by the glitter of toys. We are materialistic. We think too much of the things that money can buy, to the exclusion of other things that are really more interesting and more worth while. Perhaps, one day, even the nations shall "grow up," keeping a few of the toys, but putting them in their proper place.

Come to think of it—are we ourselves ever wholly grown up? Do feet and inches make us really grown up? And have you never met people who lived long lives and yet never grew up at all, even a little bit?

I suppose it is well for us to keep always something of childhood—there are some traits about little children that are strangely fine and cosmic,—their absolute candour, for instance, and their truthfulness. But we need to grow up, too, and to keep growing as long as we live. Perhaps there is not a year in which we might not, with profit to ourselves, slough off some undesirable trait and fill its place with something better. One of the most hopeful things I have ever heard was a casual remark by a thoughtful Doctor of Pedagogy.—Yes, I will tell you his name, for hundreds of you, ex-students of the London Normal School, will be interested,—it was Dr. Radcliffe, your good old friend. He said: "People should develop mentally, until they are seventy years of age at least. If they don't it's their own fault." Think

of the splendid possibility,—growing up steadily during all the years of a long life!

Really there is nothing more pitiful than a grown-up who has never grown up. You know him (or her, of course,) when you see him,—the man who "knows it all" already, who never has room for a new idea, who "gets mad" if anyone expresses an opinion contrary to his own; who can't take a criticism; who, in religion, politics and working methods says "what was good enough for my grandfather is good enough for me," and who, consequently, refuses even to consider anything that keeps apace with the foremost wave of the advancing centuries. After all, it is chiefly laziness—mental laziness—that prompts such an attitude. It is so much easier to drift,—but one loses so horribly by just drifting! "For, why?" as the old psalm in metre says. Because far more than half the fun and interest of life consists in going ahead. And one can't be conceited over one's achievements; one is bound to be humble, since the vista opens ahead as one goes, and one sees so very much to be caught up to.

But—horrors—how I am covering paper! I really must stop. I wish more of you would write your ideas about things.

JUNIA.

### Letter From "Lonely North."

Dear Junia,—Just a few lines, as I have been going to write to your Nook for a long time. I hope the Nookers that wrote to me last winter will write again. I must thank you all for the books and reading matter you sent me. We have lost our crop and garden stuff by the terrible fire. Did any of you Ingle Nookers ever see a raging bush fire? Oh, it is a terrible experience! Myself and sisters and mother and all my little ones were nearly strangled with heat and smoke. We had to keep wet cloths to our mouths to get breath. Now, after all the summer we will not have a thing to sell and winter coming on, and such a high cost of living. If any of the readers that wrote me last winter have any things to give to me in the way of clothing, your kindness will be greatly appreciated. You can get my address from Junia.

Northern Ont. LONELY NORTH.

Note:—Do not send parcels in care of me, write to me for address.—Junia.

### Fortunes by Tea Leaves.

Miss J. P., Peterborough, Ont., asks how to tell fortunes from tea leaves, also from the palm of the hand. The tea leaves we can give; not so the palm reading, which would take up too much space. Books on the subject can be bought. I am sorry Miss P.'s request did not come in time for the Hallowe'en issue (see note at top of Ingle Nook), but will every young person who wants to tell fortunes by tea leaves be good enough to cut the directions out and paste them somewhere for reference? This is the third time of publishing, and too much repetition is monotonous.

First, those whose fortune is to be told should drink a little of the tea while it is hot and then turn out the rest, being careful to turn out some of the grounds also. Also not to look at these as it is bad luck. Then she must turn the cup over so that no water remains, for drops signify tears. Next she must turn the cup towards her three times, wishing as she does so. Then the fortune is ready to be told.

Three small dots in a row stand for the wish. If near the top it will soon be realized; if near the bottom some time will elapse.

If the grounds are all bunched together it signifies that all will be well with the seeker, if scattered the reverse.

A small speck near the top is a letter. What it brings depends on the shape of the spot.

The sticks are people, tall or short, dark or fair according to their color and length. A small one is a child, a thick one a woman. If they lie crosswise they are enemies, if straight up friends.

If a large speck is near them it means that they are coming for a visit, with a valise or trunk.

If there is a bottle shape near a stick it means a physician. If a book shape a minister or lawyer. If many fine specks a married man.

## WILSON'S ARE GOOD SCALES

\$5.00 only

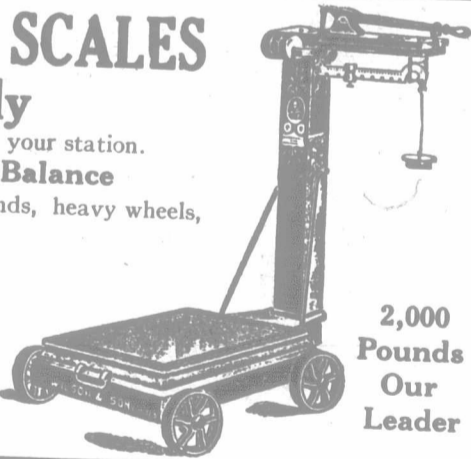
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The WILSON SCALE, 2,000 pounds, heavy wheels, drop lever and 16 Diamond Steel Bearings that are guaranteed for 20 years against wear or breakage.

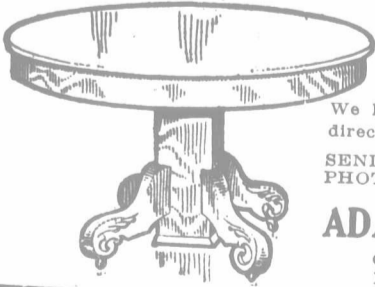
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ESTABLISHED 64 YEARS



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Our  
Leader

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SEND FOR OUR LARGE PHOTO ILLUSTRATED

Catalogue No 7

ADAMS FURNITURE CO., Limited

Canada's Largest Home Furnishers.

Toronto, Ont.

The sticks w on their backs or they say b

A long line c between is a j are no openings

A large ring, of marriage to To a marr.ec tunate undertal in business.

A small ring of marriage to To a marr.ec tunate undertal in business.

A half moon investment. A lucky.

A square of Flowers, a pre shape, or the Leaves sickness any kind, health

### Christmas Gifts

Dear Junia,—wards Christmas see if you could you please me inexpensive artic mas, and how t ing you very s end a few hi

To clean gol lie in a solut until dirt is r To clean gil of plaster or

eggs two oz., m with a soft br been removed fr Wash painted

To remove so carpet, cover it may be swept smears. Wishin success.

Huron Co., O

Just to-day a me samples of sent her last se flower-shaped b with a tiny pin at the back

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box with six hand-made doil underwear of a "safe," also pl in popular sizes narrow lace. E ceptable to ma

you seen the p device?—just a colors) covering with a cartridge cartridges are t ends of the nee punching through not in use.

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Plants in pot mas gifts, also home-made cand in fringed tissu

And you neve in giving ribbon things,—rolls of of all kinds, p heads, rolls of v

For children, of water colors; kinds, including and Kewpies, bo of colored craye board to use t and pictures; p for doll's dress and thimble. Sc should be blunt-

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 am covering top. I wish e your ideas JUNIA.  
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The sticks with a bunch of grounds on their backs are bearers of bad news, or they say bad things about you.

A long line of grounds with openings between is a journey by rail; if there are no openings it is a journey by water.

A large ring, closed, means an offer of marriage to an unmarried woman. To a married woman it means a fortunate undertaking. To a man success in business.

A small ring means an invitation. Dust-like grounds bunched together in the bottom means a sum of money. A triangle, anchor, or horse shoe signifies good luck.

A half moon or star means a paying investment. A pyramid is extremely lucky.

A square or oblong means new land. Flowers, a present, depending on the shape, or the present may be flowers. Leaves sickness or death. Fruit of any kind, health.

**Christmas Gifts—Hints for Cleaning.**

Dear Junia,—As it is getting on towards Christmas I thought I would see if you could help me again. Would you please mention some dainty but inexpensive articles and gifts for Christmas, and how they are made? Thanking you very much in return. I will send a few hints:

To clean gold chains, let the article lie in a solution of caustic potash until dirt is removed.

To clean gilt frames take chloride of plaster or soda one oz., white of eggs two oz., mix thoroughly and apply with a soft brush after the dust has been removed from the frame.

Wash painted surfaces with milk.

To remove soot, if it has fallen on carpet, cover it with dry salt, and it may be swept up without leaving smears. Wishing the Advocate every success.

Huron Co., Ont. BROWNIE.

Just to-day a dainty woman showed me samples of two Christmas gifts sent her last season. The first was a flower-shaped bow of pale-blue ribbon with a tiny pink rose-bud at the heart; at the back was a tiny safety-pin to pin the bow to the corset cover. One could give three of these, in different colors, if one chose. The other gift was a little sachet-powder bag like a tiny cushion, also to be worn beneath the corset cover or placed among handkerchiefs. She had been given a box with six of these. . . . Tiny, hand-made doilies, centerpieces, fine underwear of any kind are always "safe," also plain, very sheer collars in popular sizes, edged with very fine narrow lace. Bed-socks are very acceptable to many people. And have you seen the patriotic knitting needle device?—just a bit of ribbon (patriotic colors) covering a strip of garter elastic, with a cartridge at each end. The cartridges are to be slipped over the ends of the needles to keep them from punching through the knitting-bag when not in use.

Another useful, but very inexpensive article is a little "hammock" crocheted with coarse cotton, with a bone ring at each end. It is really a wash-rag for washing one's back. The wash-rag portion should be about 15 inches long and 10 wide, with end strings extra. . . . Ordinary square wash-rags made of Turkish towelling, with lace crocheted from coarse cotton around the edge are also useful and pretty. So are bath-towels with coarse crocheted lace or insertion at the ends, and small guest-towels with flower or initial embroidered or done in cross-stitch.

Plants in pots make lovely Christmas gifts, also pretty raffia baskets of home-made candy, each piece wrapped in fringed tissue paper.

And you never can make a mistake in giving ribbon cases filled with useful things,—rolls of baby ribbon, needles of all kinds, pins with colored glass heads, rolls of white tape, etc.

For children, suggestions are: boxes of water colors; scrap books; dolls of all kinds, including home-made Brownies and Kewpies, boxes of plasticine; boxes of colored crayons with small black-board to use them on; puzzle maps and pictures; pretty bags of patches for doll's dresses, with tiny scissors and thimble. Scissors for little children should be blunt-tipped.

Give the "Kiddies" All They Want of

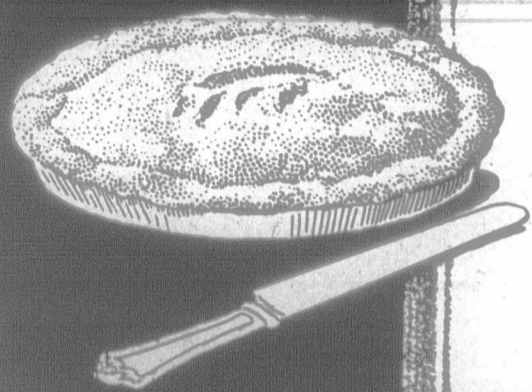
**CROWN BRAND CORN SYRUP**



It is one of the delicious "good things" that has a real food value. A slice of your good homemade bread, spread with "Crown Brand", forms a perfectly balanced food, that is practically all nourishment. So—let them have it on biscuits and pancakes, and on their porridge if they want it. You'll like it, too, on Griddle Cakes—on Blanc Mange and Baked Apples. And you'll find it the most economical sweetener you can use, for Cakes, Cookies, Gingerbread and Pies. Have your husband get a tin, the next time he is in town—a 5, 10 or 20 pound tin—or a 3 pound glass jar.

**THE CANADA STARCH CO. LIMITED**  
 MONTREAL, CARDINAL, BRANTFORD, FORT WILLIAM.  
 Makers of "Lily White" Corn Syrup—Benson's Corn Starch—  
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Our new recipe book, "Desserts and Candies", will show you how to make a lot of really delicious dishes with "Crown Brand". Write for a copy to our Montreal Office.



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 Made of the finest and hardest of wheat,  
 Purity bread is an epicure's treat.  
 Deep is the longing which gleams in your eye  
 At the first view of a Purity Pie!

**PURITY FLOUR**  
 More Bread and Better Bread

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This fine nickel-handled, two-bladed, genuine Joseph Rodgers & Sons, Sheffield, England, jack-knife is a beauty. It will cut keen and last a lifetime. Every man and boy reading this paper should have one. Ask for premium list when writing. We send out no premium we cannot recommend.

**Get us just ONE new subscriber and we will send you one like this!**

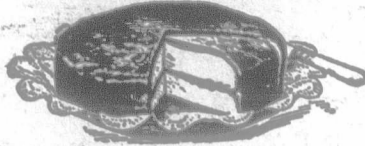
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Always To-Measure

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**RINGLET BARRED ROCKS—IMPROVE THE Laying abilities of your flock.** Bred-to-day strain, strong, healthy cockerels, \$2 each. Satisfaction or money returned. Coldham, Kingston, Ont.

### Chickens, 21c. per lb.

We are paying the above price for crate-fed chickens, bled and picked clean to the wing tips. Write for our weekly price list on all kinds of poultry.

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## PEAS, BEANS, NEW-LAID EGGS, POULTRY, DAIRY BUTTER

Highest price paid for small or large quantities. J.D. Arsenault, 637 St. Urbain St. Montreal, P.Q.

## Am. Coal Oil 12<sup>1</sup>/<sub>2</sub>c.

Per gallon GASOLINE 30c.

Shipped from London or Toronto. Write FRONTENAC AGENCIES, Bank National Bldg.

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Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted and Pet Stock. TERMS—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

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### A Silver Wedding.

Dear Ingle Nook.—Here I come for some advice from your valuable columns. For a silver wedding anniversary which would be the nicer, a hot dinner or a lunch of salads and cakes? Will you please give some menu you think would be nice. It will be evening and not long before Christmas. Which would be best, chicken or goose? Thanking you in advance I will sign myself

A HAPPY COUNTRY LASS.

Grey Co., Ont.

Either a hot dinner or cold refreshments, with tea and coffee, would be suitable for a silver wedding. A pretty idea would be to have a menu exactly similar to that at the original wedding—if anyone can remember what that was. It is quite a matter of choice whether you have chicken, goose or turkey. Simply use your own ideas as to what will be nicest and most convenient in regard to the menu. There is no hard rule in regard to the matter. Keep a watch for good recipes and practice them until they are sure to "come out right." Good cookery and common sense need few rules.

### Some More Recipes for Left-Overs.

**White Sauce.**—To know how to make a good white sauce is one of the most useful items in a careful cook's repertoire, since by means of it very palatable dishes may be made of many kinds of scraps or combinations of scraps. To make it, take 2 table spoons flour, 2 table spoons butter, 1 cup milk, salt and pepper to season. Melt the butter in a pan, then add to it the flour and let it thicken. Add half of the cup of milk and cook and beat vigorously until it is creamy, then add the rest of the milk and keep stirring until done. If you have a wire whisk, beat well with it for a few moments. Do not add the salt and pepper until it is ready to take from the fire. A good white soup stock may be used instead of the milk, and butter may be added if liked. For a white sauce many prefer white pepper. If some potatoes are left over, a nice variation is obtained by slicing them, covering with the sauce and baking. Serve very hot. A little grated cheese may be added if liked. The white sauce may also be heated up with boiled onions, boiled artichokes, cold fish or chicken, hard-boiled egg, carrots, boiled celery, etc. It is one of the usual accompaniments of boiled cod, finnan haddie and other kinds of fish. Garnish with slices of lemon and hard-boiled egg.

**Onion Butter.**—This will keep for several weeks in a cold place, and will give flavor to many a tasteless warmed-over dish which has to be made in a hurry. Chop fine 6 onions and fry in 12 table spoons butter, stirring all the time, until the onions are brown and shrivelled but not black. Put through a fine strainer into a tumbler and, when the butter has hardened cover with melted paraffin. Use a teaspoonful when needed for flavoring in stews, gravies, brown sauce etc.

**Remains of Boiled Dinners.**—Cold cabbage may be mixed with white sauce and baked, or put into hot spiced vinegar and served as a relish. Left-over squash may be made into a pie. Meat, carrots and turnips may be combined into a palatable stew. Add gravy, stock, or water and a spoonful of onion butter, heat and serve very hot on a platter with mashed potatoes around, or cover with pastry and make into a meat pie. "Red Flannel Hash" is made by chopping fine lean beef, a little hard fat; boiled potatoes and boiled beets and cabbage. The best proportion is about 1 quart of potato, 1 cup cabbage, half a large beet. Mix all with the meat, add milk or stock to moisten, also 2 table spoons butter and seasoning to taste. Heat well and serve very hot.

**Pressed Beef.**—Take 2 cups cold roast beef, 1/2 teaspoon allspice, 1/2 teaspoon cinnamon, 1/4 teaspoon ground cloves, 1/2 teaspoon salt, a blade of mace, pepper, 2 table spoons gelatine, 3 table spoons cold water, 1/2 cup boiling stock. Cut the beef fine and add seasonings. Dissolve the gelatine in boiling brown stock or gravy. Add the meat and press into a pint mould. Cover and leave in a cold place for several hours to jelly. Serve on a platter garnished with slices of lemon or egg, and sprigs of parsley.

**Graham Bread Cheese Toast.**—1/4 cup chopped ham, 1 cup grated cheese, 1 teaspoon parsley, 1 table spoon cream, yolk of one egg, 6 slices stale Graham bread. Cut the bread into rather thick slices and toast them, then trim into neat shapes. To the ham (or tongue) add 2 table spoons grated cheese, 1 teaspoon parsley, 1 table spoon cream and the beaten yolk of an egg. Spread lightly on the toast, and over the top sprinkle a thick coat of grated cheese. Put the bread in a baking pan, set in a hot oven and brown. Serve very hot.

**Curried Vegetables.**—1 cup cold potatoes, 1 cup cold carrots, 1/2 cup cold turnips all cut in dice, 1/2 cup canned peas if they are on hand, 2 table spoons butter, 2 slices onion, 2 table spoons flour, salt and pepper to season, 1/4 teaspoon curry powder, a dash of celery salt, 1 cup milk, 1 teaspoon chopped parsley. Cook the onion in the butter, add the flour and seasoning, then pour on slowly the scalded milk. Mix with the vegetables when cooked and heat well. Sprinkle with finely chopped parsley and serve hot.

**Sour Cream Pie.**—Bake a pie shell and fill with the following: Stir together 1/4 cup sugar, 1 1/4 table spoons flour, grated rind of a lemon, and a dash of salt. Mix this with 2 well-beaten eggs, 1 cup sour cream, and 1 table spoon lemon juice. Pour into the pie shell and bake in a rather cool oven until firm in the centre. Serve cold.

## The Dollar Chain

A fund maintained by readers of "The Farmer's Advocate and Home Magazine" for (1) Red Cross Supplies; (2) Soldiers' Comforts; (3) Belgian Relief; (4) Serbian Relief; (5) Prisoners of War.

Contributions from Oct. 27th to Nov. 3rd:

"Friend," Langdon, Ont., \$2; "Scotia," London, Ont., \$1.15. Previously acknowledged.....\$3,005.85

Total to Nov. 2nd.....\$3,009.00  
IF YOU CAN'T GO TO THE FRONT, GIVE.

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

## Current Events

Six Toronto men were drowned when the steamer Cabotia was torpedoed.

Six Americans were among the 70 who lost their lives when the British steamer Marina was sunk without warning off the Irish coast.

Lieut.-Gen. von Stein has been appointed German Minister of War.

King Constantine has given further guarantees to the Allies by withdrawing the Greek troops which had been regarded as a menace to the left flank of the allied armies at Salonika, an arrangement which will permit this division to be sent to Macedonia. Nevertheless there is much ferment in Greece, and collisions have taken place between the royalists and revolutionaries.

The Germans have evacuated Fort Vaux, the most important of the outer defences at Verdun. . . . On November 1st Gen. Cadorna, the Italian Commander, resumed his offensive against the Austrians on the Carso plateau, and with such success that in the first 4 days his troops succeeded in taking 9,000 prisoners, with guns and ammunition of all kinds, the total losses of the Austrians being estimated at over 25,000.

In Galicia and Volhynia, Gen. Brusiloff's troops have found tough fighting, and on the Stokhod River in Volhynia the Russians sustained a severe defeat, but succeeded in recovering part of the trenches taken from them. . . . In Roumania the outlook is better than for some time, the concerted movement of the Allies to relieve the pressure there is evidently beginning to have effect. On November 1st von Falkenhayn, who is commanding on the Transylvanian border, made way through the Red Tower Pass and penetrated 12 miles into Wallachia,

but at all of have held th even driving forces from th renewal of B from the Valle Macedonia; by the French end of the Serbs, meanw and have infli Bulgars, but immediate ob

## The B An Openi

Dear Beav we have all our oars, ha been pushing the Beaver much you wan and besides, I you would ha picking berries and helping turnips.

But now wi will be indoo evenings you do something after school les

We want our to be the best are all as bus the two comp for the Junior I competition fo coming along r all the letters 15th.

"Busy as Be do for our m it be if we star story about of the deep wo It is taken fr very interesting World." Mr. nearly all of hi he knew a great and furry broth Here is what I

"One autumn, and Clark tra western Monta evening with a young beaver.

old, and ate twi as though he I named him ' time he was a puppy. Of an the camp and o by water. At t building and fr accomplishment that were about He never failed I whistled for hi near my camp, under the edge I spread my be on the horse's b which he evide never in a hurr moving time h eagerly to be lif noticed me a came close, and for him, he rose in rapid successi a whining sort to be lifted at pack.

"He had a b About one hour encamped as us He entered the w about for a time merry dives, he side. In plain away, I watched roots of the C stopped leisurely he was thus eng dash for him fr Diver dodged, a Giving a wail li my youngster r and dived. Pres of the water ne to crawl under the log on which

"The nearest quarter of a m than five minutes time of Diver's appeared, swim

but at all other points the Roumanians have held their own, at some points even driving back the Austro-German forces from the frontier. . . . A marked renewal of British activity is reported from the Valley of the Struma in Grecian Macedonia; also gains have been made by the French and Italians, at the other end of the long Balkan line. The Serbs, meanwhile, are fighting hard, and have inflicted heavy losses on the Bulgars, but have not yet reached their immediate objective, Monastir.

## The Beaver Circle

### An Opening of the Season Letter.

Dear Beavers.—During the summer we have all been rather resting on our oars, haven't we? I have not been pushing you to do much for the Beaver Circle, for I knew how much you wanted to play out of doors, and besides, I supposed that many of you would have plenty of work to do, picking berries and gathering up apples, and helping with the potatoes and turnips.

But now winter is coming on. You will be indoors more, and in the long evenings you will likely find time to do something for the Beaver Circle, after school lessons are done.

We want our Beaver Circle this winter to be the best yet, and it will be, if you are all as busy as beavers. Just now the two competitions on "Our School" for the Junior Beavers, and the limerick competition for all the Beavers, are coming along nicely. Don't forget that all the letters must be in by November 15th.

"Busy as Beavers!"—how would that do for our motto? And how would it be if we start the winter's work by a story about the busy little beavers of the deep woods and far-away streams? It is taken from Mr. Enos A. Mills' very interesting book "In the Beaver World." Mr. Mills, you know, spent nearly all of his life in the woods, and he knew a great deal of our little feathered and furry brothers.

Here is what he told about one beaver: "One autumn, when following the Lewis and Clark trail with a pack-horse in western Montana, I made camp one evening with a trapper who gave me a young beaver. He was about one month old, and ate twigs and bark as naturally as though he had long eaten them. I named him 'Diver', and in a short time he was as chummy as a young puppy. Of an evening he played about the camp and often swam in the nearby water. At times he played at dam building and frequently displayed his accomplishment of felling wonderful trees that were about the size of a lead pencil. He never failed to come promptly when I whistled for him. At night he crouched near my camp, usually packing himself under the edge of the canvas on which I spread my bedding. Atop the pack on the horse's back he traveled,—a ride which he evidently enjoyed. He was never in a hurry to be taken off, and at moving time he was always waiting eagerly to be lifted on. As soon as he noticed me arranging the pack, he came close, and before I was quite ready for him, he rose up, extending his hands in rapid succession begging, and, with a whining sort of muttering, pleaded to be lifted at once to his seat on the pack.

"He had a bad fright one evening. About one hour before sundown we had encamped as usual alongside a stream. He entered the water and after swimming about for a time, taking a dozen or so merry dives, he crossed to the opposite side. In plain view, only fifty feet away, I watched him as he busily dug out roots of the Oregon grape and then stopped leisurely to eat them. While he was thus engaged a coyote made a dash for him from behind a boulder. Diver dodged, and the coyote missed. Giving a wail like a frightened child, my youngster rolled into the stream and dived. Presently he scrambled out of the water near me and made haste to crawl under my coat tail behind the log on which I sat.

"The nearest beaver pond was a quarter of a mile upstream, yet less than five minutes had elapsed from the time of Diver's cry when two beavers appeared, swimming low and cautiously

in the stream before me. A minute later another came in sight from downstream. All circled about, swimming cautiously with heads held low in the water. One scented the place where the coyote had attacked Diver, and waddled out and made a sniffing examination. Another came ashore at the spot where Diver came out to me. Apparently his eyes told him I was a part of the log, but his nose proclaimed danger. After three or four hesitating and ineffectual attempts to retreat, he plucked up courage and rose to full height on hind legs and tail to stare eagerly at me. With head well-up and fore paws drooping, he held the gaze for several seconds and then gave a low whistle.

"At this Diver came forth from behind my coat to see what was going on. The old one started forward to meet him, but on having a good look at me whirled and made a jumping dive into the water, whacking the surface with his tail as he disappeared. Instantly there followed two or more splashes and a number of tail-whacks upon the water, as though a beaver rescue party were beating a retreat.

"At the end of my outing Diver became the pet of two pioneer children on the bank of the Snake river. He followed the children about and romped with them."

### Little Bits of Fun.

The class was being instructed on the "circulation of the blood." The teacher said, during the course of instruction:

"If I stand on my head, the blood will run down into my head. Do you understand?"

"Yes," replied the class.

"Then," continued the teacher, "why is it that the blood don't run into my feet when I stand upon them?"

There was a pause for a few seconds, when one of the pupils said:

"I guess because your feet ain't empty."

The title of the picture was 'The Truth-tellers,' and the children were asked to write a composition thereon. This was little Johnnie's effort: 'One day mother left me in the house all alone. Pretty soon Tommy Jones came along and said let's go swimming. My mother wont let me. Ah, come on. So I went. When mother came back she said what makes your hair so wet. I said mother I cannot tell a lie I went swimming. And she said Johnnie I'm glad you took a bath.'—Life.

### Senior Beavers' Letter Box.

Dear Puck and Beavers.—I received the book to-day. Thanks very much. I am going to begin reading it at once as I have never read it before. I have quite a few pets. Some of them are: four pigeons, two kittens, an old cat and a chicken. I wish some of the Beavers would write to me. We have taken the Farmer's Advocate as long as I can remember. I have read a number of books. Some are "The Coral Island," "Ivanhoe," "The Lady of the Lake," and several others. Well as my letter is getting long I will close.

Yours sincerely,  
JANET GRIEVE.  
R. R. No. 5, Seaforth, Ont.

### Junior Beavers' Letter Box.

Dear Puck and Beavers.—My father has taken the Farmer's Advocate ever since he started farming and I like to read the Beavers' letters, so I am going to write one. I live on a farm and have just about five minutes walk to school. We have the best teacher in Canada and all the scholars call him "Teddy." He has taught our school for fifteen years. I have two brothers going to school and a twin brother and sister two years old. We have three Collie pups and we call them "Rag", "Tag" and "Bobtail."

Hoping to see this letter in print,  
WILLIS RICHARDSON.  
Age 7 years.

This is a splendid letter for a wee lad of 7 years,—all the "stops" quite right and the writing very neat. Come again, Willis.

BY APPOINTMENT TO HER MAJESTY GEORGE V  
ESTABLISHED 1810.

## Gifts for Overseas

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### The Windrow

Fifty-three thousand women are now employed on men's work, other than munitions, in France. . . .

Miss Graynella Packer of Jacksonville, Florida, was the first woman in the world to serve as a commercial wireless operator. She has served on the Clyde liner Mohawk, and now wishes to secure a position on a big ocean line. Many women are now qualifying for the work.

Recent scientific experiments show that a growing boy of school age requires about 50 per cent more food than a hard-working adult. The deduction is that school-boys should be well fed.

The new Hennepin Ave. Methodist Episcopal church in Minneapolis is to be decorated with pictures on religious subjects painted by early European masters. The pictures were donated by Mr. Thomas Walker, one of the wealthy members of the church, who has been a collector of pictures for many years.

## OUR NEW SERIAL STORY

Serial Rights Secured from the Bobbs-Merrill Publishing Company.

# The Brown Mouse

CHAPTER III.  
WHAT IS A BROWN MOUSE?

Immediately upon the accidental election of Jim Irwin to the position of teacher of the Woodruff school, he developed habits somewhat like a ghost's or a bandit's. That is, he walked of night and on rainy days.

On fine days, he worked in Colonel Woodruff's fields as of yore. Had he been appointed to a position attached to a salary of fifty thousand dollars a year, he might have spent six months on a preliminary vacation in learning something about his new duties. But Jim's salary was to be three hundred and sixty dollars for nine months' work in the Woodruff school, and he was to find himself—and his mother. Therefore, he had to indulge in his loose habits of night walking and roaming about after hours only, or on holidays and in foul weather.

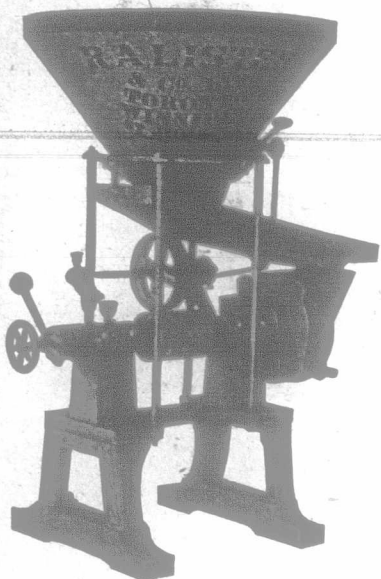
The Simms family, being from the mountings of Tennessee, were rather startled one night, when Jim Irwin, homely, stooped and errandless, silently appeared in their family circle about the front door. They had lived where it was the custom to give a whoop from the big road before one passed through the palin's and up to the house. Otherwise, how was one to know whether the visitor was friend or foe?

From force of habit, Old Man Simms started for his gun-rack at Jim's appearance, but the Lincolnian smile and the low, slow speech, so much like his own in some respects, ended that part of the matter. Besides, Old Man Simms remembered that none of the Hobdays, whose hostilities somewhat stood in the way of the return of the Simmses to their native hills could



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WHAT'S YOURS?

(Tell us in a few words)

possibly be expected to appear thus in Iowa.

"Stranger," said Mr. Simms, after greetings had been exchanged, "you're right welcome, but in my kentry you'd find it dangerous to walk in this way."

"How so?" queried Jim Irwin. "You'd more'n likely git shot up some," replied Mr. Simms, "unless you whooped from the big road."

"I didn't know that," replied Jim. "I'm ignorant of the customs of other countries. Would you rather I'd whoop from the big road—nobody else will."

"I reckon," replied Mr. Simms, "that we-all will have to accommodate ourselves to the ways hyeh."

Evidently Jim was the Simms' first caller since they had settled on the little brushy tract whose hills and trees reminded them of their mountains.

Low hills, to be sure, with only a footing of rocks where the creek had cut through, and not many trees, but down in the creek bed, with the oaks, elms and box-elders arching overhead, the Simmses could imagine themselves beside some run falling into the French Broad, or the Holston. The creek bed was a withdrawing room in which to retire from the eternal black soil and level cornfields of Iowa. What if the soil was so poor, in comparison with those black uplands, that the owner of the old wood-lot could find no renter? It was better than the soil in the mountains, and suited the lonesome Simmses much more than a better farm would have done. They were not of the Iowa people anyhow, not understood, not their equals they were pore, and expected to stay pore—while the Iowa people all seemed to be either well-to-do, or expecting to become so. It was much more agreeable to the Simmses to retire to the back wood-lot farm with the creek bed running through it.

Jim Irwin asked Old Man Simms about the fishing in the creek, and whether there was any duck shooting spring and fall.

"We git right smart of these little panfish," said Mr. Simms, "an' Calista done shot two butterball ducks about 'tater-plantin' time."

Calista blushed—but this stranger, so much like themselves, could not see the rosy suffusion. The allusion gave him a chance to look about him at the family. There was a boy of sixteen, a girl—the duck-shooting Calista—younger than Raymond—a girl of eleven, named Virginia, but called Jennie—and a smaller lad who rejoiced in the name of McGeehee, but was mercifully called Buddy.

Calista squirmed for something to say. "Raymond runs a line o' traps when the fur's prime," she volunteered.

Then came a long talk on traps and trapping, shooting, hunting and the joys of the mountings—during which Jim noted the ignorance and poverty of the Simmses. The clothing of the girls was not decent according to local standards; for while Calista wore a skirt hurriedly slipped on, Jim was quite sure—and not without evidence to support his views—that she had been wearing when he arrived the same regimentals now displayed by Jennie—a pair of ragged blue overalls. Evidently the Simmses were wearing what they had and not what they desired. The father was faded, patched, gray and earthy, and the boys looked better than the rest solely because we expect boys to be torn and patched. Mrs. Simms was invisible except as a gray blur beyond the rain-barrel, in the midst of which her pipe glowed with a regular ebb and flow of embers.

On the next rainy day Jim called again and secured the services of Raymond to help him select seed corn. He was going to teach the school next winter, and he wanted to have a seed-corn frolic the first day, instead of waiting until the last—and you had to get seed corn while it was on the stalk, if you get the best. No Simms could refuse a favor to the fellow who was so much like themselves, and who was so greatly interested in trapping, hunting and the Tennessee mountains—so Raymond went with Jim, and with Newt, Bronson and five more they selected Colonel Woodruff's seed corn for the next year, under the colonel's personal superintendence.

In the evening they looked the grain over on the Woodruff lawn, and the colonel talked about corn and corn selection. They had supper at half past six, and Jennie waited on them—having assisted her mother in the cooking. It

was quite a festival. Jim Irwin was the least conspicuous person in the gathering, but the colonel, who was a seasoned politician, observed that the farm-hand had become a fisher of men, and was angling for the souls of these boys, and their interest in the school. Jim was careful not to flush the covey, but every boy received from the next winter's teacher some confidential hint as to plans, and some suggestion that Jim was relying on the aid and comfort of that particular boy. Newt Bronson, especially, was leaned on as a strong staff and a very present help in time of trouble. As for Raymond Simms, it was clearly best to leave him alone. All this talk of corn selection and related things was new to him, and he drank it in thirstily. He had an inestimable advantage over Newt in that he was starved, while Newt was surfeited with "advantages" for which he had no use.

"Jennie," said Colonel Woodruff, after the party had broken up, "I'm losing the best hand I ever had, and I've been sorry."

"I'm glad he's leaving you," said Jennie. "He ought to do something except work in the field for wages."

"I've had no idea he could make good as a teacher—and what is there in it if he does?"

"What has he lost if he doesn't?" rejoined Jennie. "And why can't he make good?"

"The school board's against him, for one thing," replied the colonel. "They'll fire him if they get a chance. They're the laughing stock of the country for hiring him by mistake, and they're irritated. But after seeing him perform to-night, I wonder if he can't make good."

"If he could feel like anything but an underling, he'd succeed," said Jennie. "That's his heredity," stated the colonel, whose live-stock operations were based on heredity. "Jim's a scrub, I suppose; but he acts as if he might turn out to be a Brown Mouse."

"What do you mean, pa," scoffed Jennie—"a Brown Mouse!"

"A fellow in Edinburgh," said the colonel, "crossed the Japanese waltzing mouse with the common white mouse. Jim's peddling father was a waltzing mouse, no good except to jump from one spot to another for no good reason. Jim's mother is an albino of a woman, with all the color washed out in one way or another. Jim ought to be a mongrel, and I've always considered him one. But the Edinburgh fellow every once in a while got out of his variously-colored, waltzing and albino hybrids, a brown mouse. It wasn't a common house mouse, either, but a wild mouse unlike any he had ever seen. It ran away, and bit and gnawed, and raised hob. It was what we breeders call a Mendelian segregation of genetic factors that had been in the waltzers and albinos all the time—their original wild ancestor of the woods and fields. If Jim turns out to be a Brown Mouse, he may be a bigger man than any of us. Anyhow, I'm for him."

"He'll have to be a big man to make anything out of the job of a country school teacher," said Jennie.

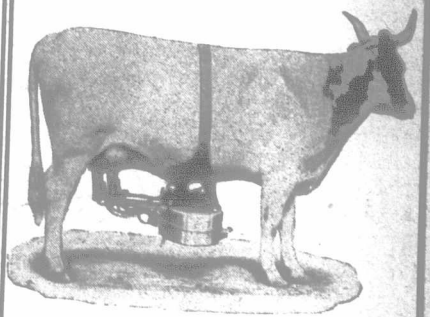
"Any job's as big as the man who holds it down," said her father.

Next day, Jim received a letter from Jennie.

"Dear Jim," it ran. "Father says you are sure to have a hard time—the school board's against you, and all that. But he added, 'I'm for Jim, anyhow!' I thought you'd like to know this. Also he said, 'Any job's as big as the man who holds it down.' And I believe this also, and I'm for you, too! You are doing wonders even before the school starts in getting the pupils interested in a lot of things, which, while they don't belong to school work, will make them friends of yours. I don't see how this will help you much, but it's a fine thing, and shows your interest in them. Don't be too original. The wheel runs easiest in the beaten track. Yours, Jennie."

Jennie's caution made no impression on Jim—but he put the letter away, and every evening took it out and read the italicised words, "I'm for you, too!" The colonel's dictum, "Any job's as big as the man who holds it down," was an Emersonian truism to Jim. It reduced all jobs to an equality, and it meant equality in intellectual and spiritual development. It didn't mean, for instance, that any job was as good as

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THE FARMER'S SEEDSMAN SEEDS FIFTY YEARS SERVICE 1866 1916

**Preparedness**

While it lasts we can supply 1914 and 1915 CORN on cob of high Germinating power at \$3.00 per bush. In crates. This advertisement has been suggested to us by the number of farmers who are buying SEED CORN NOW for spring. We are buyers of Alsylce, Alfalfa, Red Clover, Timothy and Seed Grain. Send samples.

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

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New York and London, England

YOU are interested in getting the highest market prices for your furs—not in getting the highest quotations and the very poorest returns. Being manufacturers as well as exporters, and the oldest house in the Dominion in our line, we surely can satisfy you. Write for price list and tags, free.

G. H. ROGERS

Desk 10 Walkerton, Ont., Can.

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A valuable book which tells you about the treatment of diseases of your live stock given FREE with a trial tin order of

LINSEED OIL CAKE

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A New Song Hit

by Canada's famous song writer, who wrote the world's greatest song, "Good Luck to the Boys of the Allies." Get his latest child song, "I Want My Daddy." It has a beautiful story and a catchy march melody. Price 15 cents at all music dealers, or send to

MORRIS MANLEY, 77 Victoria St., Toronto

In a certain small English village there were two butchers living in the same street. One placarded his sausages at 1s. a pound, and the rival promptly placed 8d. on his card. No. 1 then placed a notice in his window, saying that sausages under 1s. could not be guaranteed. No. 2's response to this was the announcement, "I have supplied sausages to the king." In the opposite window the following morning appeared an extra large card bearing the words, "God Save the King." —Tit-Bits.

EC MA Rose T cal—the cups to because Assam-famous richness make R



Dre

We are of crate-f of all kin prices pai Write for Henry Wholesale Poultry 348 W

AN establ cern h for se having an record and marketing G implements. experience an to make a ch treated in co SA c.o. Farmer's

STAN or stuttering ov thods permanen als pupils every literature. THE AR BERLI

SEED We are buyers ALFALFA, W CLOVER, and offer send samp best price F.O.B. TO Seed Merchant

Cotton In car Write, 'ph The Chishol To

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MEGA Machine



private dairy of Windsor Castle private estate at ECA in a 17-day 17 previous days increased the milk

Efficient only machine that eats through stiff to the pail which (See cut). The and the test-cups suck up straw or over tubes in the bor germs. The design and easily

day being the many features of the

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124 KING ST. E TORONTO

URS n, England e highest market ting the highest orest returns. as exporters, e Dominion satisfy you. ags, free.

RS a, Ont., Can.

ARIAN you about the ve stock given order of CAKE ad prices. lls. Limited Montreal

g Hit who wrote the ck to the Boys child song. "I beautiful story ice 15 cents at

a St., Toronto glish village iving in the ed his saus- d the rival card. No. 1 his window, r Is could 2's response cement, "I the king." e following. e large card e the King."

Indian Economy

MANY careful people have found that Red Rose Tea is very economical—that it yields more cups to the pound. That is because it consists largely of Assam-Indian teas, which are famous for their full-bodied richness and strength. They make Red Rose Tea go farther.



In sealed packages only. 712

Dressed Poultry Wanted

We are open to receive shipments of crate-fattened, dressed poultry of all kinds. Highest market prices paid, according to quality. Write for quotations.

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

AN established manufacturing concern has an unusual opportunity for several live travelling men having an established trade, a clean record and who are familiar with marketing Gas engines and agricultural implements. Write fully as to your experience and your reasons for wishing to make a change. Your letters will be treated in confidence. Address:— SALES MANAGER, c.o. Farmer's Advocate, London, Ont.

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or stammering overcome positively. Our natural methods permanently restore natural speech. Gradual pupils everywhere. Write for free advice and literature.

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SEED WANTED

We are buyers of ALSIKE RED CLOVER, ALFALFA, WHITE BLOSSOM, SWEET CLOVER, and TIMOTHY Seed. If any to offer send samples, and we will quote you our best price F.O.B. your station.

TODD & COOK Seed Merchants Stouffville, Ont.

Cotton Seed Meal

In car lots and L. C. L. Write, phone or wire for prices. The Chisholm Milling Co., Limited Toronto, Ontario

The Sherlock - Manning

20th Century Piano "Canada's Biggest Piano Value" has every standard feature, yet costs \$100 less. Ask Dept. 18 for Catalogue "T". THE SHERLOCK - MANNING PIANO CO. London, Canada (No street address necessary)

another in making it possible for a man to marry—and Jennie Woodruff's "Humph!" returned to kill and drag off her "I'm for you, too!"

CHAPTER IV.

THE FIRST DAY OF SCHOOL.

I suppose every reader will say that genius consists very largely in seeing Opportunity in the set of circumstances or thoughts or impressions that constitute Opportunity, and making the best of them.

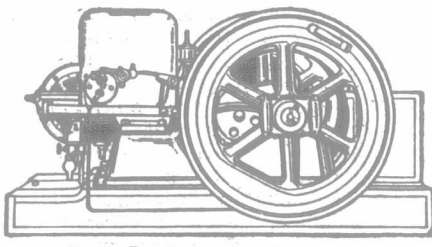
Jim Irwin would have said so, anyhow. He was full of his Emerson's *Representative Men*, and his Carlyle's *French Revolution*, and the other old-fashioned, excellent good literature which did not cost over twenty-five cents a volume; and he had pored long and with many thrills over the pages of Matthews. Getting on in the World—which is the best book of purely conventional helpfulness in the language. And his view of efficiency was that it is the capacity to see opportunity where others overlook it, and make the most of it.

All through his life he had had his own plans for becoming great. He was to be a general, hurling back the foes of his country; he was to be the nation's master in literature; a successful drawing on his slate had filled him with ambition, confidently entertained, of becoming a Rubens—and the story of Benjamin West in his school reader fanned this spark to a flame; science, too, had at times been his chosen field; and when he had built a mouse-trap which actually caught mice, he saw himself a millionaire inventor. As for being president, that was a commonplace in his dreams. And all the time, he was barefooted, ill-clad and dreamed his dreams to the accompaniment of the growl of the plow cutting the roots under the brown furrow-slice, or the whooshing of the milk in the pail. At twenty-eight, he considered these dreams over.

As for this new employment, he saw no great opportunity in it. Of any spark of genius he was to show in it, of anything he was to suffer in it, of those pains and penalties wherewith the world pays its geniuses, Jim Irwin anticipated nothing. He went into the small, mean, ill-paid task as a part of the day's work, with no knowledge of the stirring of the nation for a different sort of rural school, and no suspicion that there lay in it any highway to success in life. He was not a college man or even a high-school man. All his other dreams had found rude awakening in the fact that he had not been able to secure the schooling which geniuses do. All he was to be was a rural teacher, accidentally elected by a stupid school board, and with a hard tussle before him to stay on the job for the term of his contract. He could have accepted positions quite as good years ago, save for the fact that they would have taken him away from his mother, their cheap little home, their garden and their fowls. He rather wondered why he had allowed Jennie's sneer to sting him into the course of action which put him in this new relation to his neighbors.

But, true to his belief in honest thorough work, like a general preparing for battle, he examined his field of operations. His manner of doing this seemed to prove to Colonel Woodruff, who watched it with keen interest as something new in the world, that Jim Irwin was possibly a Brown Mouse. But the colonel knew only a part of Jim's performances. He saw Jim clothed in slickers, walking through rain-storms to the houses in the Woodruff District, as greedy for every moment of rain as a hay-maker for shine; and he knew that Jim made a great many evening calls.

But he did not know that Jim was making what our sociologists call a survey. For that matter, neither did Jim; for books on sociology cost more than twenty-five cents a volume, and Jim had never seen one. However, it was a survey. To be sure, he had long known everybody in the district, save the Simmses—and he was now a friend of all that exotic race; but there is knowing and knowing. He now had note-books full of facts about people and their farms. He knew how many acres each family possessed, and what sort of farming each husband was doing—live stock, grain or mixed. He knew about the mortgages, and the debts. He knew whether the family atmosphere was happy and contented,



POWER PLUS SERVICE

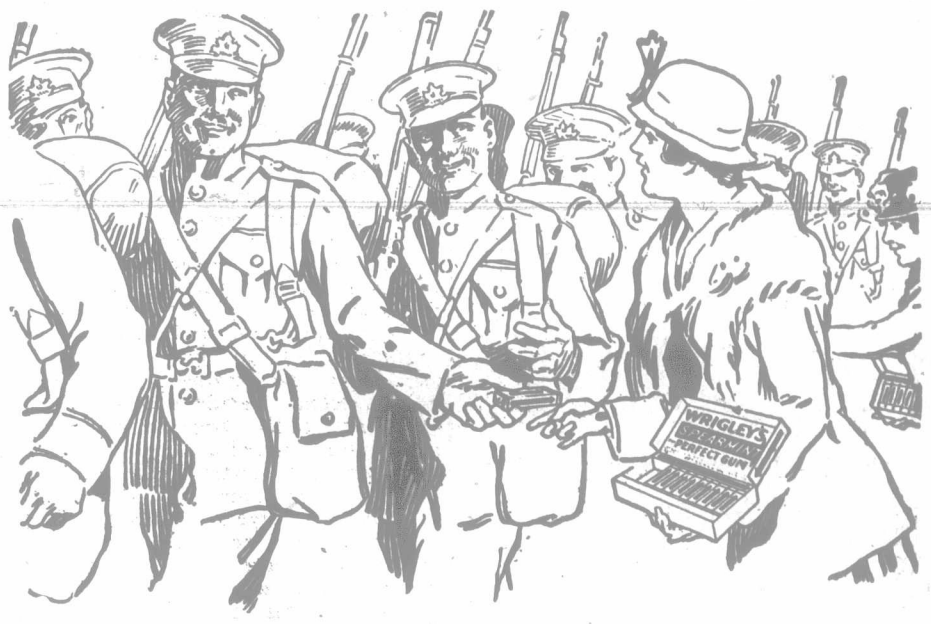
What do you care if it is the lowest-priced farm engine on the market? That is nothing against it so long as it does the work required of it. There are indeed some farmers afraid to buy a Page because it is so low in price. Others, again, who buy it for that very reason. In either case the Page will surprise. Put to the test of daily service, it

No matter what your power requirements, you will find in the Page line just the engine you need. The Page Gasoline Engine has long been famous for its ability to stand the hardest kind of hard use, and many of the first engines sold by us are still chugging merrily along, doing a full day's work every day. Now we've added to our line The Page Kerosene Oil Engine—specially designed for operating on this cheaper fuel. It has unique and distinctive features about which we would like to tell you fully. Write for our circulars descriptive of both types.

WHAT'S WORK TO OTHER ENGINES IS PLAY TO A PAGE

soon makes clear the fact that its price is merely incidental—that the big outstanding feature is its ability to furnish greatest power for least fuel. This is particularly true of our new Kerosene Oil Engine, which has many new and distinctive features that we'll explain if you'll just sign your name to a post card and send it to us.

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It's something for our boys to march on. It reminds them of home in a pleasant and lasting way. Tens of thousands are enjoying

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in camp or in the trench—on the hike or on watch. When lights are out and even smoking is prohibited, then WRIGLEY'S gives sure solace—refreshing, sustaining, beneficial.

Send a few packages or a box to your soldier lad—his appetite, digestion and spirits will be the better for it. Sold everywhere.



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Scientific Eye-Examining

\$3.00 Correct Glasses—Free of Charge to Every Patient Consulting our Specialists. THE BROWN OPTICAL COMPANY 233 Dundas Street, London, Ont.



She was the Riddle of the Neighborhood

No matter how early her neighbors got up, her washing was always first on the line. Some mornings 'twas nearly seven before they spied the smoke curling slowly from her chimney. But within the hour—up went her snow-white washing. Then they would glimpse her, fresh and neat, feeding her chickens or weeding in her garden. And the neighbors wondered, and they plotted, and they found her out. One of them went to borrow clothes-pins, and there sat my lady, gently pushing back and forth a "1900" Gravity Washer.

There are 5 important points about a Washing Machine:

- 1. Does it Wash Clean? With a vigorous motion the "Gravity" drives the soapy water clear through the fibres of the clothes until they are thoroughly clean.
2. Is it Easily Operated? Because gravity plays so large a part in its action, our Washer requires the least labor of any machine on the market. Gravity does all the hard work.
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5. Is the Tub Well Built? The "1900" Gravity tub is made of Virginia White Cedar, which we know, from 20 years' experience, is positively the best wood for making washing machines. It is bound together with heavy galvanized steel wire hoops, which will not break, rust, or fall off. The tub is detachable—an important feature.

You Need this Machine. It will Save You Backache, Time, and Money.

Try it at our expense. We will send it to you for a free trial, with a week's use. Do as many washings with it as you like within the trial period, and if you then find that you can afford to do without it, send it back at our expense. If you want to keep it, we know you will, pay for it out of what it saves you, week by week. 50c. a week if you like, until it is paid for. If you want to know specially about our trial offer, best address me personally.

State whether you prefer a washer to operate by Hand, Engine Power, Water or Electric Motor. Our "1900" line is very complete and cannot be fully described in a single booklet.

J. B. MORRIS, MANAGER
1900 WASHER COMPANY
357 YONGE STREET, TORONTO

The Deacon SHIRT

For Your Husband

"My wife always buys me Deacon Shirts" said a farmer the other day. They are both well satisfied. The farmer is sure of a good fit, with plenty of room for arm freedom. The wife is proud of the neat appearance and the freedom from mending and patching, and the eternal sewing on of buttons. The wear is there.

All good dealers sell Deacon Shirts.

Deacon Shirt Company
BELLEVILLE, CANADA 11

The Perfect Piano for the Home. NEW SCALE WILLIAMS. The choice of the World's Great Artists. THE WILLIAMS PIANO Co. Ltd. Oshawa, Ontario.

EARN \$10 A WEEK AT HOME. The Hosiery trade is booming. Help to meet the huge demand. Industrious persons provided with profitable, all-year-round employment on Auto-Knitters. Experience and distance immaterial. Write for particulars, rates of pay, etc. Send 2 cents in stamps. Auto-Knitter Hosiery (Can.) Co., Ltd. Dept. 308E, 257 College St., Toronto.

or the reverse. He knew which boys and girls were wayward and insubordinate. He made a record of the advancement in their studies of all the children, and what they liked to read. He talked with their mothers and sisters—not about the school, to any extent, but on the weather, the horses, the automobiles, the silo-filling machinery and the profits of farming.

I suppose that no person who has undertaken the management of the young people of any school in all the history of education, ever did so much work of this sort before his school opened. Really, though Jennie Woodruff did not see how such doings related to school work, Jim Irwin's school was running full blast in the homes of the district and the minds of many pupils, weeks and weeks before that day when he called them to order on the Monday specified in his contract as the first day of school.

Con Bonner, who came to see the opening, voiced the sentiments of the older people when he condemned the school as disorderly. To be sure, there were more pupils enrolled than had ever entered on a first day in the whole history of the school, and it was hard to accommodate them all. But the director's criticism was leveled against the free-and-easy air of the children. Most of them had brought seed corn, and a good-sized corn show was on view. There was much argument as to the merits of the various entries. Instead of a language lesson from the text-book, Jim had given them an exercise based on an examination of the ears of corn.

The number exercises of the little chaps had been worked out with ears and kernels of corn. One class in arithmetic calculated the percentage of inferior kernels at tip and butt to the full-sized grains in the middle of the ear.

All the time, Jim Irwin, awkward and uncouth, clad in his none-too-good Sunday suit and trying to hide behind his Lincolnian smile the fact that he was pretty badly frightened and much embarrassed, passed among them, getting them enrolled, setting them to work, wasting much time and laboring like a heavily laden barge in a sea-way.

"That feller'll never do," said Bonner to Bronson next day. "Looks like a tramp in the schoolroom."

"Wearin' his best, I guess," said Bronson.

"Half the kids call him 'Jim,'" said Bonner.

"That's all right with me," replied Bronson. "The room was as noisy as a caucus," was Bonner's next indictment, "and the fure was all over corn like a hog-pen."

"Oh! I don't suppose he can get away with it," assented Bronson disgustedly, "but that boy of mine is as tickled as a colt with the whole thing. Says he's goin' reg'lar this winter."

"That's because Jim don't keep no order," said Bonner. "He lets Newt do as he dam pleases."

"First time he's ever pleased to do anything but devilry," protested Bronson. "Oh, I suppose Jim'll fall down, and we'll have to fire him—but I wish we could git a good teacher that would git hold of Newt the way he seems to!"

To be continued.

English as Tea Drinkers.

WHY THE CUSTOM HAS GROWN IN A FEW YEARS.

One remarkable feature of English domestic life has been the increase in tea-drinking. In 1876 the consumption of tea per head of the population in the United Kingdom was four and a half pounds. In 1913 it was six and three-quarter pounds. The increase has been all to the good from the point of view of the nation's sobriety.

The great increase in the consumption of tea is very largely due to the efforts of British planters in India. Formerly all tea came from China. Fortunately, however, it was discovered that the tea shrub is a native of Assam, one of the Indian provinces. Energetic Britons started planting in Assam. All the processes are performed by clean, automatic machinery. Thus the teas from India are pure and free from all contaminating admixture. Coming from healthy, well-matured plants they contain all the essential elements in rich abundance.

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McCormick's Jersey Cream Sodas. McCormick's Jersey Cream Sodas are so crackling crisp, so light, and so easily digested that they can be eaten at times when heavier, coarser foods, perhaps, would cause discomfort. Sold fresh everywhere in different sized packages. Ask your grocer. M'Cormick's Sodas So good that butter seems unnecessary.

When writing please mention this paper

The Throughout of the boy. happiness in perfect regard to ha "Happiness whose veil Colton wrote between hap he who thi man, really himself the greatest fool "Fixed to no 'Tis nowhere John Ruski is expressed happiness is to be won by Love of some him, and cher Despite th that have be however, we universal goo ways nor nec The goddess confer it, smiles being —the burden wealth itself. mainly a perso out each one —a mental a not a nepent intervals, nor or discarded or delight is fixed and s a limp stree clear, perenn such as ours, dependent of it must inevita currents and a ly it is tranqu are two types o ly fitted to b go-easy, happ other is the calm in consci "How can maintained?" ways cherishi life, an unwa of right, an to the fullest in the spirit aspiration abou despair and the pure emp stars of Reasc of Love, "fixe as high and h where all is ha The view sumed, that id the common normal mind is we are always to think high our thoughts a man think Prov. 23:7. I wrote that an pebble could ' universe as th So might a m wheat infer a think of happy or sordid life, better world? of its own, a world of miser Since a mar of himself, it f basely is base, ditions; that clean and elev "The pure ir Those who se works—who se truth, vastness the kingdom "kingdom with within is happ Kent Co., Or



### The Psychology of Happiness.

Throughout history, like the quest of the boy for the pot of gold at the end of the rainbow, man has been seeking happiness, and has never yet found it in perfection. Various theories have been put forward by the sages with regard to happiness. Landon declared: "Happiness is like the statue of Isis, whose veil no mortal ever raised." Colton wrote: "There is this difference between happiness and wisdom, that he who thinks himself the happiest man, really is so; but he who thinks himself the wisest, is generally the greatest fool." According to Pope:

"Fixed to no spot is happiness sincere; 'Tis nowhere to be found, or everywhere."

John Ruskin's psychology of happiness is expressed thus: "Man's only true happiness is to live in Hope of something to be won by him, in Reverence of something to be worshipped by him, and in Love of something to be cherished by him, and cherished—forever."

Despite these and other wise words that have been written about happiness, however, we do not yet possess the universal good. Success does not always nor necessarily ensure happiness. The goddess Fortuna does not always confer it, persons upon whom fortune smiles being often harassed by cares—the burdens and entanglements of wealth itself. Happiness seems to be mainly a personal equation, to be worked out each one for himself—within himself—a mental and constitutional matter, not a nepenthe to be taken at stated intervals, nor a mantle to be assumed or discarded at will or pleasure. Joy or delight is transient; happiness is a fixed and settled condition. Joy is a limpid stream; happiness is a calm, clear, perennial fountain. In a world such as ours, it cannot be wholly independent of outward circumstances, it must inevitably be affected by turbulent currents and adverse winds, but essentially it is tranquil and dominant. There are two types of mind which seem peculiarly fitted to be happy, the one is, the go-easy, happy-go-lucky type; the other is the self-trusting, dynamic one, calm in conscious power.

"How can happiness be attained and maintained?" By resolutely and always cherishing a cheerful outlook upon life, an unwavering trust in the triumph of right, and by using our powers to the fullest to achieve this end. Live in the spirit. Rise in thought and aspiration above the clouds of doubt, despair and trouble. Live much in the pure empyrean heaven, with the stars of Reason, of Hope, of Faith and of Love, "fixed there in the firmament" as high and holy guides to ideal realms where all is happy, all is good.

The view sometimes urged, or assumed, that ideal conditions are not for the common man, is erroneous. The normal mind is ever in a state of activity; we are always thinking. Is it not better to think high thoughts than low? As our thoughts so are our ideals. "As a man thinketh . . . so is he."—Prov. 23:7. Dr. Oliver Wendell Holmes wrote that an archangel thinking of a pebble could "infer the entire inorganic universe as the simplest of corollaries." So might a man thinking of a grain of wheat infer a world of life. Why not think of happy life rather than of mean or sordid life, and thus help to make a better world? Thought builds a world of its own, according to its liking—a world of misery or a world of happiness.

Since a man's thought is a reflection of himself, it follows that he who thinks basely is base, and will create base conditions; that he whose thoughts are clean and elevated is of a pure mind. "The pure in heart shall see God." Those who see God reflected in His works—who see goodness, order, beauty, truth, vastness and grandeur in nature, the kingdom without—possess also the "kingdom within." The kingdom within is happiness.

Kent Co., Ont. W. J. WAY.

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Use Gold Dust for cleaning and brightening everything. It is the only cleaning preparation you need. Housework is lighter and life is brighter where Gold Dust is kept on duty every day.

Gold Dust is for sale in 5-cent and larger packages. Order it from your grocer now. Simple directions on package.

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Soldier Friend

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A fully illustrated catalogue and Dr. Jaeger's Health Culture will be sent free on application.

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Removes all Inflammation.  
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For Sale Everywhere.  
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OPEN SEASONS

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MOOSE—November 1st to November 15th inclusive. In some of the Northern Districts of Ontario, including Timagami, the open season is from November 1st to November 30th inclusive.

Write for copy of "Playgrounds—The Haunts of Fish and Game," giving Game Laws, Hunting Regulations, etc., to

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Toronto, Ont.

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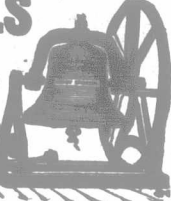
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1st—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.  
2nd—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and 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 in urgent veterinary or legal enquiries, \$1.00 must be enclosed.

**Veterinary.**

**Crippled Lambs.**

My lambs appear to have rheumatism, caused by the wet weather last spring. They have difficulty in rising, and when walking take very short steps, and appear weak in their hind legs. One has died.

R. L.

Ans.—You are probably right in your diagnosis. Keep them in a comfortable, thoroughly dry place. Feed on clover hay and a little oats and raw roots. Give each 2 grains of salicylic acid three times daily. Bathe the joints of the hind legs well three times daily with hot water, and after bathing rub well with hot, camphorated oil.

**Gossip.**

**The International at Chicago.**

Visitors to the International Live Stock Exposition, Chicago, December 2 to 9, will be given, so to speak, a short course in animal husbandry, and receive an opportunity to learn which types are most profitable and which best meet the demands of the market. The Exposition will this year enlarge upon its educational work, and an effort will be made to offer much additional helpful information, in new and original form, to all who attend the Show. Apart from the information one can gather at that time, it will be a real treat to see the wonderful line-ups of horses and cattle which will come from all parts of the North American Continent. Winners from many State fairs and exhibitions in Canada will then meet for the final test of the season. It will surely be worth seeing. The shepherd and the raiser of swine will also have an opportunity to see the best. This event cannot fail to attract large numbers.

**The Wife's Share.**

EDITOR "THE FARMER'S ADVOCATE":

The law of partnership has it, that when two or more persons combine their resources in developing a business proposition, the interests of each is to be guarded against any "hog" policy of the party of the first or the second part, as the case may be. A sum-up of the matter is for fair play in dividing the profits. Anyone will admit that the rights of individuals must be respected. We are living in a civilized country and in modern times. Our customs demand it.

All this suggests another situation. Does the farmer, as a business man, consider his wife as a partner in the firm. So far as the productive end is concerned there are few who do not fully measure up as equals of their masculine associates. But how about their share in the dividends? Are they consulted in matters of management? Are they working on a fair basis befitting the genuine partner? Every once in a while, some embodiment of the old "lord and master spirit" bobs up and starts in to quote scripture. Usually Paul is the favorite authority. Once upon a time, the Apostle said, "Wives submit yourselves to your own husbands . . . for the husband is the head of the wife, etc." This looks like a clincher, but later on he made an important amendment: "Husbands, love your wives." As the wives of that period were regarded as little better than slaves, a sermon on equal rights for women would not have been exactly popular. His appended dictum, however, if properly lived up to, would give them about all they could ask for.

Many a man has been pulled out of a slough of business entanglements by

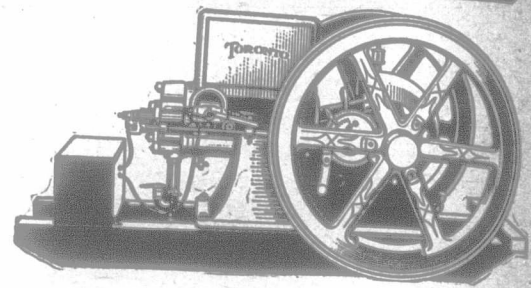
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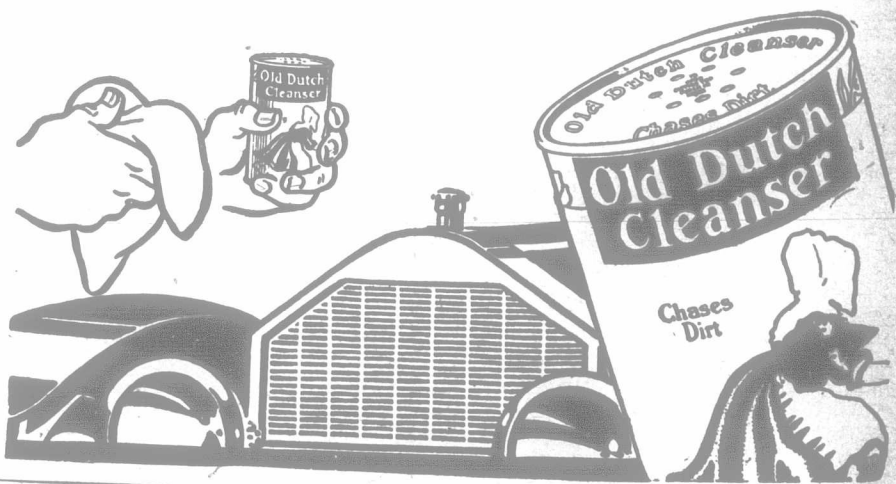
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the good, hard common sense of his better half. The fact that a man may recognize that his wife has the ability to do something of the sort does not in any respect detract from his own greatness. If he loves to feed his vanity, let him add another feather to his cap, for he has earned it. To recognize talent and utilize it in compelling success is a desirable trait. The millionaire in oil and steel has done it; so has many a prime minister in forming his official family. After all two heads are better than one. Why not make it a fundamental principle in farm management? "Oh," says Jones, "but my wife gets a stated amount each month to do with as she pleases." Good intentions, no doubt, but no partner will stand for it. It smacks of the way that servants are paid. Partners on an equal footing should have enough confidence in each other's judgment not to ask any questions about small amounts. The pocket book should always be opened to either. If \$5.00 is taken out, he or she should make an entry to that effect in the cash book. In case of large sums talk it over as partners should. Important particulars call for consultation. That's my platform.

Of course, there will be kickers. But did it ever occur to these gentry to figure out how much a man would amount to if he attempted to work out-of-doors and attend to his own home? Let such a one try it. Get generous for once, and persuade your wife to take that long promised holiday for say a month. Then get busy and note the results. If I mistake not, Robinson Crusoe marooned on his desert island will seem like a picnic compared to your troubles. The demonstration will probably be an eye-opener, however.

But you say too free a hand will make her extravagant. Will she be more of a spendthrift than yourself? She has probably heard you preaching about hard times simultaneously with the purchase of various labor-saving devices. Naturally, she gets an idea that you are not so poverty stricken as you would have her believe, and accordingly begins a campaign for a few needed appliances that will lighten her work. If there is really a tendency to overstep there is likewise a remedy, but for goodness sake see that the drawing-in process is extended to your end of the business as well as to hers. In cases of this nature the man is usually to blame. He hangs on to the secret of his financial status with so determined a grip that the wife is often in total ignorance of his real income. By loosening up a little she will know the true state of affairs—just what you are making and what she can afford to spend. This is the viewpoint of the partner. There is no better check to extravagance.

Some farmers' wives have what money they can make out of the butter and chickens as their personal rake-off. They have, in fact, to operate a little side-show of their own in order to secure "pin money." The chickens and butter are all right; they can, perhaps, do this work better than anyone else, and so help along, but it is not an equal partnership. All side-show proceeds ought to go into the general fund, and the necessary cash drawn therefrom. I have known some farmers to pile up large bank accounts, while their wives rather than humble themselves to ask for what was really theirs would gladly add this butter-and-egg combination to a round of already over-crowded duties.

Admittance to a full partnership is a necessity if the wife is to do her best work in her own special sphere. Washing dishes, sweeping and cooking three hundred and sixty-five days a year is the essence of monotony. It is a domestic treadmill, the ceaseless grind of which, slowly but surely wears away the strongest nature. With the farmer, himself, there are constant changes. He plows and sows and reaps. His work takes him here and there about the farm, to town, the blacksmith shop, the mill or the store. He sees new faces and new scenery. In variety he obtains rest and recreation. Were the wife a partner in reality the varied interests of farm management would be transmitted into her life. Consultations on business matters would serve as a tonic and result physically, mentally and financially to the benefit of the firm. AGRICOLA



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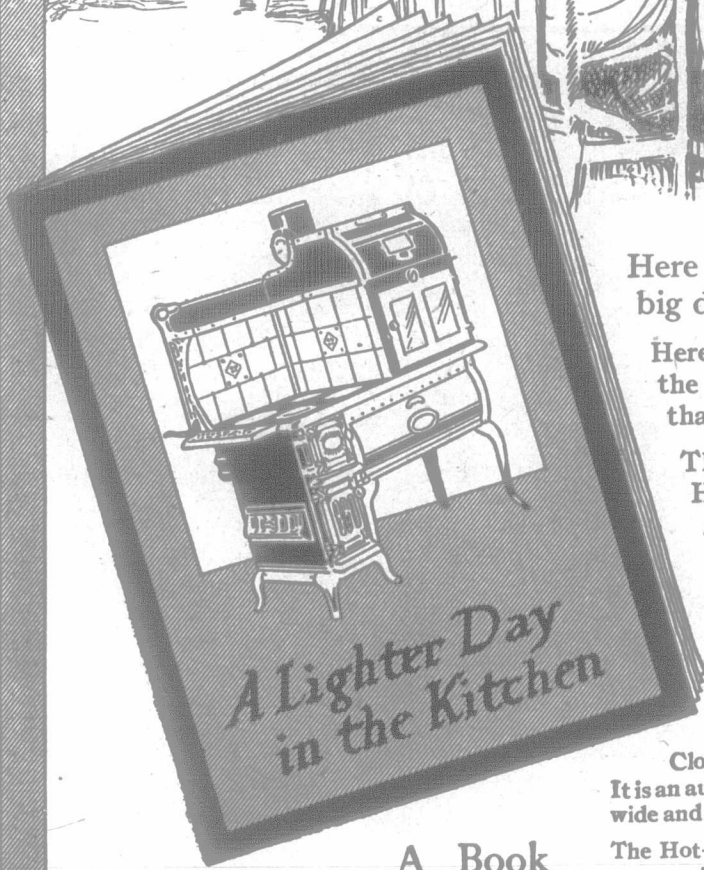


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**Boiling Cider Sauce.**

Editor "Farmer's Advocate."  
The day set apart to boil cider apple sauce is a big day for the country boys and girls. It only comes once a year and like Christmas it is not an anniversary to pass over lightly. All the family help in the preparations.

The youngsters' snare in the preliminaries had been the picking up of the sweet apples. A large load of them was taken to the cider mill in the neighborhood, and the apples came back in the form of a delicious, sweet, amber-colored liquid, in barrels. Before the barrels could be unloaded the children had climbed up, mugs in hand, to "drink apples." Then the barrels were unloaded near the place where the huge kettle hung on its heavy pole and many a tip to get a sip of the health-giving decoction was made by the youngsters and grown-ups during the afternoon and evening. It was like drinking liquid honey to drink this rich, sweet cider—so sweet, so refreshing, so healthful. A real food. When you drink sweet cider fresh from the press you are drinking a solution of phosphorus, malic acid, gum, water, albumen, sugar, etc. It is a veritable nectar as well as amorsia and was highly esteemed by the Ancients for they believed in its efficacy in keeping off old age.

This particular time was Apple-Paring-Night. A nappy, merry lot of neighbors had been asked in to help the housewife pare, quarter and core the apples required for the morrow's sauce making. "Many hands make light work," is the old saying, and in a few hours bushels of apples had been prepared. The time speeds quickly when work is interspersed with joke and story, and midnight was announced as we finished. Then a light lunch followed and the neighbors dispersed to dream dreams about apples and apple paring. These old-fashioned "bees" are fast becoming a thing of the past but they have been a great factor in days gone by and where they yet obtain are a source of cheer and good fellowship.

The next morning the youngsters were up bright and early to see every detail connected with apple-sauce making. The great kettle was filled with cider and a fire of logs made under it. As the cider boiled down more was added and this was kept up till enough had boiled to make a start. Then the apples, previously prepared, were added, and, as the boiling proceeded, more cider and apples were added, from time to time. The boiling went on most of the day, and night coming on found our task still unfinished. Darkness comes early these short days and the night was dark. The moon was in hiding and it was cold so we donned coats and caps and thus muffled, "sat the kettle about." The bright fire under the huge pot lit up the surroundings and gave color to our faces. How the dry fagots cracked and snapped when fresh fuel was added to the fire and the dying embers returned to tongues of flame, great and small, hugging the large cauldron of brass! Now their great shadows danced when we moved to "stir the pot," till one could conjure up bears, wolves and ghosts near at hand in the clumps of bushes or in the dark corners, as story after story was told to the children! The grown up children entered into the play spirit and enjoyed it equally.

At last the task was finished. The dying embers no longer illuminated our work. The sauce was finished. Lanterns were secured and the rich, dark brown, smooth, sweet smelling sauce was dipped into earthen crocks; carried to a safe place till morning, when it would be set and cool. The crocks were then securely covered and put away in a good cellar to be used throughout the winter.

No farm home seems complete without its boiled apple sauce, and when well made with sweet apples and sweet cider it is no mean dish though it may be homely.

How often have I seen the youngsters just in from school, tie themselves to the cupboard and shortly appear with a huge slice of bread and butter topped with a generous supply of boiled apple sauce, the *piece de resistance* till supper.

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**Gossip.**

Weir's Berkshires.

In renewing their advertising contract for another year Jno. Weir & Son, breeders of improved Berkshire swine at Paris, Ont., report a most successful trade for the season just closed. With the exception of three or four six-months pigs, which they retained to make the county shows, all the young boars have gone, and a number of orders are already booked for some younger ones now coming on. In young sows, however, they have an unusually good lot, all bred to their herd sire, Ring-leader 39234, first-prize aged boar at Toronto this year, and first and champion at London. He is also the sire of all the litters that are now coming on, some of which are old enough to ship. The majority of the breeding sows from which these pigs are bred are descended from Flo Compton of the famous Compton strain from Compton Flower Imp. This strain has produced some excellent types for Mr. Weir. Another family that has also done well with him is the Pudding Charm strain. These were also included in their foundation stock, directly descended from imported sires and dams which place them in a position to furnish pairs or trios not akin. Let them know your wants.

D. C. Flatt & Son Write.

"We are pleased to report that our great cow, Jennie Bonerges Ormsby, has dropped a handsome bull calf. We think this calf as well bred as any bull in Canada, and, as an individual, he is just as good as his breeding. His dam, Jennie Bonerges Ormsby, and sire's dam, which is Loula Keys, are show cows with perfect udders, which counts for much in the selection of a bull. But the good qualities of these two great cows are not all in their individuality. They have both proven themselves great producers. At the age of two years they both made yearly records with the wonderful average of eighteen thousand pounds of milk and seven hundred and fifty-five pounds butter. As mature cows their average seven-day butter record is thirty-four and one-half pounds, their milk seven hundred pounds. Their average thirty-day butter record is one hundred and thirty-seven pounds; their milk twenty-eight hundred and eighty-five pounds. In addition to the above, Jennie Bonerges Ormsby is the only cow in the world to make over thirty pounds of butter a week for five consecutive years. She has just turned ten years old, and has given birth to nine living calves. We think we are right in claiming that her present calf is one of the best bred bulls of the breed."

**Trade Topic.**

Information has been received in this office to the effect that the ONTARIO WIND ENGINE & PUMP COMPANY, LTD., of Toronto, have made an important change in the selling force of their Ontario Branch. C. S. Milne, who has formerly held an important position with the Page Wire Fence Company, is assuming the position of Sales Manager, commencing some time this month.

As Mr. Milne has been in close touch with farmers during his entire business career of over twenty years, he is thoroughly acquainted with their needs. The Ontario Wind Engine & Pump Company have been peculiarly successful in catering to the requirements of the farming public, particularly along the lines of power and water supply systems, and under Mr. Milne's direction this firm should develop a sales policy which will have unqualified success.

Unanswerable Argument.—"I tell you," said Pat, "the old friends are the best, after all, and, what's more, I can prove it."  
"How are you goin' to prove it?"  
"Where will you find a new friend that has sth'd by ye as long as the old ones have?"—Answers.



or lame in the barn, "eating their heads off"? One means profit—the other means loss. When a horse goes lame—develops a Spavin, Curb, Splint, Ringbone—don't risk losing him through neglect—don't run just as great a risk by experimenting with unknown "cures". Get the old reliable standby—

**KENDALL'S SPAVIN CURE**

Mr. David Yerex, Sonya, Ont., writes—"I have used your Spavin Cure for fifteen years, and know it to be a good cure". Be ready for emergencies, keep a bottle of Kendall's in the barn. Then, if a horse goes lame, you have the remedy on hand to cure the trouble quickly. \$1. a bottle—6 for \$5. at druggists. Ask your dealer for free copy of book—"Treatise On The Horse"—or write us direct.  
Dr. B. J. KENDALL CO., ENOSBURG FALLS, VERMONT, U.S.A. 110



**Individuality**

The chief characteristic of a sire is firmly implanted in all our bulls. Some of the best herds in America to-day are headed by bulls bred by us. We have them out of champions, by champions, and champions. Come to us to get a sire if you want to pick from the best in the country to-day. We have them from two hundred dollars up.

**A. F. & G. AULD**

A. GORDON AULD, Owner

FIELD MARSHALL =100215= the calf of 1915, sold June 7, 1916, for \$3,775. Arkell Station, R. 2, Guelph, Ont.

**Shorthorn Bulls---Shorthorn Females**

A HERD THAT YOU WILL LIKE

You will like our females; you will like the breeding and you will like the sires that have been used on these in the past year. Right Sort (Imp.), Bandman (Imp.), Newton Friar (Imp.), Lyton Selection, Escana Champion,—all these bulls have been used in the past year. We can show you some young bulls by these sires that are show calves. Come and see them or let us send you particulars. We can also spare some females bred to them; heifers, four and six-year-old cows, as well as cows with calves at foot.

WM. GHENT & SONS, FREEMAN P.O., ONT. Farm, 300 yds. from Burlington Jct., G.T.R.

**Dual-Purpose Shorthorns**

One young bull, 18 months old, dam qualified in R.O.P., sired by College Duke; also number of females. Address:

WELWOOD FARM, Farmer's Advocate, London, Ont.

SPECIAL OFFERING FROM THE

**SALEM SHORTHORN HERD**

Eight roan and red heifers about twelve months, big, well-bred heifers of fine quality, also ten young bulls of our usual high class kind. J. A. WATT, ELORA, ONTARIO

**IMPORTED SHORTHORNS**

40 more imported Shorthorns have arrived home from quarantine. We now have 18 heifers in calf and 19 cows with calves at foot, also a few good, imported bulls. They are all good individuals and represent the choicest breeding. We can meet visitors at Burlington Jct. at any time if notified.

J. A. & H. M. PETTIT, FREEMAN ONT.

**WILLOWBANK STOCK FARM SHORTHORN HERD**

Established 1855. This large and old established herd has at the head the two great bulls: Imported Roan Chief =60865=, a Butterfly and the prizewinning bull Browndale =80112=, a Mina. An extra good lot of young stock to offer of either sex. Splendid condition. Good families of both milking strain and beef. JAMES DOUGLAS, CALEDONIA, ONTARIO

**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.

**PLEASANT VALLEY SHORTHORNS**

Special Offering:—Several young bulls from 7 to 16 months, sired by Loyal Scot (Imp.) and from our best breeding females. You will like these, and we could also spare a few choice females bred to the same sire. GEO. AMOS & SONS, Moffat, Ont. (11 miles east of Guelph, C.P.R.)

**Spruce Glen Shorthorns**

When in want of Shorthorns visit our herd. We have 70 head to select from, Minas, Fames, Miss Ramsdens, Florences, Emils, etc. Many of them one and two-year-old heifers. Also several young bulls of breeding age—level, thick, mellow fellows and bred just right. James McPherson & Sons, Dundalk, Ont.

**BURNFOOT STOCK FARM**

Breeders of high-record dual-purpose Shorthorns with a splendid conformation for beef. Visitors welcome. CALEDONIA, ONT.

S. A. MOORE, Prop.

**Shorthorns**

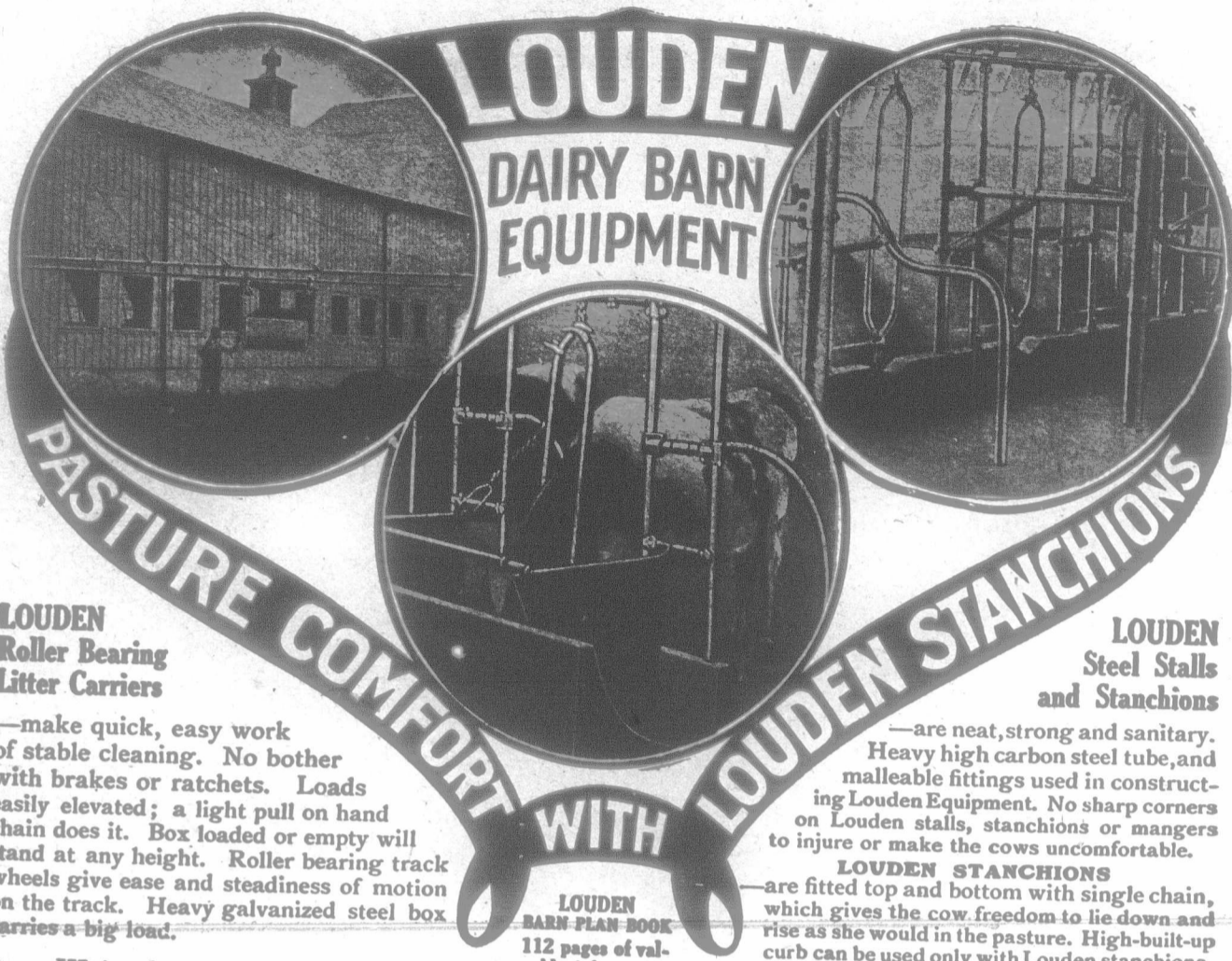
Pure Scotch and Scotch topped—Booth. Also five (5) young bulls from ten to twenty months old, of the low down, thick kind, good colors—reds and roans. Prices reasonable. G. E. MORDEN & SON, Oakville, Ont.

**IRVINEDALE SCOTCH SHORTHORNS**

Offering this year in Scotch Shorthorns is probably the best we have offered for many years; there are several young bulls of serviceable age—right good ones and breeding the very best; also females of any age. JOHN WATT & SON, ELORA, R.M.D

**SCOTCH SHORTHORNS**

Choice Breeding High Quality. We are offering this fall the choicest lot of young herd headers we ever bred, several are of serviceable age, high in quality, rich in breeding. Also a number of heifers. GEO. GIER & SON, WALDEMAR, R.M.D. Grand Valley Sta.



**LOUDEN Roller Bearing Litter Carriers**

—make quick, easy work of stable cleaning. No bother with brakes or ratchets. Loads easily elevated; a light pull on hand chain does it. Box loaded or empty will stand at any height. Roller bearing track wheels give ease and steadiness of motion on the track. Heavy galvanized steel box carries a big load.

**LOUDEN Steel Stalls and Stanchions**

—are neat, strong and sanitary. Heavy high carbon steel tube, and malleable fittings used in constructing Louden Equipment. No sharp corners on Louden stalls, stanchions or mangers to injure or make the cows uncomfortable.

**LOUDEN STANCHIONS** —are fitted top and bottom with single chain, which gives the cow freedom to lie down and rise as she would in the pasture. High-built-up curb can be used only with Louden stanchions.

**LOUDEN BARN PLAN BOOK** 112 pages of valuable information

Write for Free Catalogues.

Write for Louden Plan Book. It's Free.

**Louden Machinery Co. of Canada, Ltd., Dept. 412 Guelph, Ont.**

WINNIPEG, MAN.

BRANCHES: ST. JOHN, N.B.

VANCOUVER, B.C.

(4)

**Facts To Know When Buying Cross-Cut Saws**

The name "Simonds Crescent Ground," on a cross-cut saw means that the 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 the 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.

**Glenfoyle Shorthorns**

Large selections 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.

**SHORTHORNS**

Males, females, one good red bull, 16 months, five younger, three fresh cows, calves by side, heifers. Right dual-purpose breed and kind.

Thomas Graham, Port Perry, R.R. 3, Ont.

**Shorthorns and Swine.** Have some choice young bulls for sale; also cows and heifers of show material, some with calves at foot. Also choice Yorkshire sows.

Andrew Groff, R.R. No 1, Elora Ont.

**Northlynd R. O. P. Shorthorns and Jerseys** Present offering: One Shorthorn bull old enough for service, whose dam, his dam's full sister and his granddam in six yearly tests made an average of over 8,500 lbs. milk, testing over 4% in an average of 329 days. G. A. Jackson, Downsview, Ont.

**Spruce Lodge Stock Farm.** Shorthorns and Leicesters. Special offering of a choice lot of ram and ewe lambs, good type and well woolled; also my imported stock ram.

W. A. Douglas, Caledonia, Ont.

**Maple Leaf Shorthorns and Shropshires.** Now offering some choice heifer calves; also two Show bulls, fit for service, a Mina and a Gloster. In Shropshires some good ram and ewe lambs; shearing ewes by Nock 16 (Imp.), this ram also for sale, one of the best show and breeding rams in Ontario.

John Baker, R.R. No. 1, Hampton, Ontario.

**PLASTER HILL SHORTHORNS**

MILKING STRAINS—5 young bulls, 5 to 12 months, bred from record cows. Visitors welcome.

F. Martindale & Son, G.T.R. Caledonia, R.R. 3

**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 ¼ mile from Burlington Jct.

**ROYAL BREEDING SCOTCH SHORTHORNS HIGH-CLASS TYPE**

of high-class, fashionably-bred Scotch Shorthorns in calf to Sittyton Sultan's Dale, a Mina-bred son of Avondale, dam by Whitehall Sultan, is of interest; come and examine my offering.

A. J. Howden, COLUMBUS, ONT. Myrtle, C.P.R., Brooklyn, G.T.R.

**SHORTHORNS AND SHROPSHIRE—T. L. Mercer, Markdale, Ont.**

Have sold all the Shropshires I can spare this season. Present offering in Shorthorns—ten really choice young bulls, sired by Broadhooks, Golden Fame =50018= Imp. and out of such noted families as Campbell-bred Clarets, Nonpareils, Marr Missies, Stamfords, Crimson Flowers, Village Girls and Charming Jems, ranging from 9 to 16 months old. All good reds and roans.

**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

**Maple Grange Shorthorns**

Pure Scotch and Scotch-topped. Breeding unsurpassed. A nice selection in young bulls, and a limited number of thick, mossy heifers.

R. J. Doyle, Owen Sound, Ontario

**OAKLAND SHORTHORNS**

51 to select from. 20 breeding cows and as many choice heifers, many of them bred, also a lot of choice young bulls, all of the dual-purpose strain. All sired by choice bulls and registered and offered at prices to live and let live.

JOHN ELDER & SONS, HENSALL, ONT.

**Scotch Shorthorns, Yorkshires and Oxford Downs**

Our Shorthorns are of the most noted Scotch families and the Scotch (imp.) bulls, Joy of Morning (imp.) =32070=, Benachie (imp.) =69954=, and Royal Bruce (imp.) =80283= have been used in succession. Two choice bulls of breeding age and heifers for sale. Also sheep and swine.

Erin Station, C.P.R., L.-D. Phone. GEO. D. FLETCHER, Erin, Ont., R.R. 1

**An Interesting Account of Things Overseas.**

Dr. James W. Robertson, who was appointed some time ago as Canadian representative on the British Committee for the Agricultural Relief of the Allies, recently returned from the battlefields of Europe, and readers will be interested in some accounts he gave of conditions in stricken lands, and published in the Ottawa Citizen:

"As soon as one leaves Folkestone," said Dr. Robertson, "to cross the channel to Boulogne, the evidences of a whole nation at war thicken and deepen. Without the mastery of the seas by the invisible as well as the visible navy the multitudinous traffic to France could not be maintained. Comparing what I saw with what I recall from times of peace I suppose the cross channel carriage of men and materials is now twenty times greater and it has been and is being done safely, speedily and comfortably, barring the slight inconvenience of a little crowding on the steamers. I am reminded of another example of the extent and efficiency of the service of the Royal Navy. I crossed the Atlantic on one of the troop ships under convoy. When still more than two days this side of our port, I was told 'To-morrow at noon, we will be met by the destroyers and then each ship will take her course with her own special convoy.' At half-past eleven the horizon was clear, at twenty-five minutes to twelve a number of specks of smoke grew out of the sea. The specks grew into streaks, I saw the destroyers racing towards us. Our ship was going three-quarters speed to keep pace with the slowest steamer.

"At noon precisely the gong on the under bridge sounded, the indicator marked 'full speed ahead,' and off we went with a destroyer gambling in front of us and beside and around us like a watchful dog unwilling to restrain its racing energy. Consider the wide ocean, the wastes of waters, the vast distances, the hundreds of ships converging on and leaving the British Isles, the innumerable duties of the navy, and then reflect, 'At noon to-morrow.' Precisely at noon the engagement was kept. It was a matter of surprise to a naval officer that I should find anything surprising in what I have stated. To the navy it was the usual way of carrying out the work of one of the ordinary 365 days of the year. I salute the golden silence and the eloquent service of the visible and invisible but invincible navy.

"The heroism of the French armies in the field is matched by the patriotism of the French workmen in the factories, and the devotion of the French women in the fields growing and saving crops. Other women in the munitions work serve France with a tenacity, capacity and endurance which wages alone could not buy. Even in the devastated regions where poverty presses, I did not see an untidy woman or child. The impoverishment in property seems to have imparted an enrichment of spirit and bearing. One little girl of 14, amid the ruins of a once pretty and prosperous village, pointed to the cellar just visible through the mass of debris on top. Her face had an awesome expression for a moment. The Germans pulled out the mayor and his daughter. They shot them both. The soldiers cut and tore off the breasts of the woman in the open street. Those were the days when the Germans, sure of speedy victory, let go all their unbridled arrogance and ferocity.

"I saw several thousands of the men of the French armies. On the whole they were taller and larger men than those of the British army, except the overseas troops and a few regiments from the United Kingdom. Officers and men alike were radiant with alertness. I saw several large bodies of troops coming out for periods of rest from the Forest of Argonne and Verdun. They looked as fit and confident, although not so spic and span, as our Canadian boys under review.

**"NEW Silo**

Low priced, supporting,

Write to-day Free Illustrated mailed to you

Investigate this

**The Metal**

Manufacturers "Empire" TORONTO

**Cream**

Our markets are paying a from 40c. Net to ship plied. you

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Where are And what your cream? We want more and more for us. Write for our Silverw LOND

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Ship your cream We pay all exp We supply cans. We remit weekly We guarantee ch

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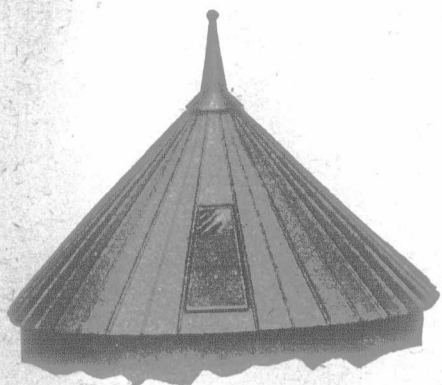
Line of WASH WORKERS, FC GINES, etc. W MAXWELLS L

**1 YEAR**

Bull calves fr Could spare bred to the SEGIS PON R. M. HOLT

**Bulls, Bul**

just ready for se King Segis Pontiac bull, Pontiac Heng testing dams. Pri and get them. Ma C. P. R. stations. R. W. Walker &



**"NEW EMPIRE"  
Silo Roof**

Low priced, easy to erect, self-supporting, no rafters needed.

Write to-day for price list and Free Illustrated Leaflet, mailed to any address on request.

Investigate this roof, it is a good one.

**The Metallic Roofing Co. LIMITED**

Manufacturers of "Eastlake" Shingles  
"Empire" Corrugated Iron

TORONTO ONTARIO

**Cream Wanted**

Our markets have advanced. We are paying according to quality, from 40c. to 45c. per lb. fat.

Net to shippers. Cans supplied. A line will bring you particulars.

**Toronto Creamery Co., Ltd.**  
9-11 Church Street  
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 - Ontario



BE SURE AND ASK FOR THE  
Line of WASHERS, CHURNS, BUTTERWORKERS, FOOD CUTTERS, GAS ENGINES, etc. Write for Catalogue.  
MAXWELLS LIMITED, St. Mary's, Ont.

**1 YEARLING BULL**

Bull calves from 10 months down. Could spare 10 cows or heifers, bred to the great bull, KING SEGIS PONTIAC DUPLICATE.  
**R. M. HOLTBY, Port Perry, Ont.**

**Bulls, Bulls** We have several young Holstein bulls for sale, just ready for service. Sired by the great bull, King Segis Pontiac Duplicate, and our junior herd bull, Pontiac Hengerveld Pieterje, and from high-testing dams. Prices low for the quality. Write and get them. Manchester, G. T. R., and Myrtle, C. P. R. stations. Bell Phone.  
**R. W. Walker & Sons, R.R.4, Port Perry, Ont.**

Everywhere along the valley of the Marne, at Paris, at the Somme, we heard and saw and felt plentiful evidence of the cordiality of the appreciation of the British by the French and of the French by the British. In France and Britain the entente cordiale has been sublimated from a political phrase into national devotion to a greater cause with and for each other.

"Of the British army in France others more competent by far than I have spoken and written. I had read much, I had read with a certain reserve the unstinted praise of the spirit, its unflinching courage and in later months of its sufficient equipment. I no longer have any reserve. I have read nothing which adequately represents what I saw and felt. Miles and miles, and again miles, behind the cutting edge of the wedge at the front, as far as the eye could reach were encampments and encampments of infantry and cavalry and artillery and aeroplanes. The country roads were thronged with traffic like the main thoroughfares of a great city.

"At crossings and junctions of roads in the open country soldier policemen directed the traffic. I did not see one blockade or hear an ill-tempered wrangle. Nearer the front I saw Australians, New Zealanders and Indian cavalry with hosts of Kitchener's Army from England, Scotland and Ireland. I saw Canadians marching towards their places for the great attack at Courcellette. I spoke with men of one company. I passed several others. The occasion was not one for any affectation or posing for effect. I wish Canada could see the serious, confident, happy bearing of her sons when their hour of trial was ahead. One could only smile through tears while the heart beat faster from pride in the bearing and spirit and character of the men.

**Canadian Medical Service.**

"The visit to England and France gave me opportunities of seeing something of the Canadian Army Medical Service, a little of the work of the British Royal Army Medical Corps, and of the French Hospital service for the wounded. The order, sanitary cleanliness and good health of the men in the encampments do not just happen. They are the result of intelligence, knowledge and industry—organized for application to all kinds of situations all the time. The sanitary and medical staffs never seem to consider the question of personal ease for themselves.

"From the wounded men in motor ambulances just behind the usual range of shells to the men in hospitals and convalescent homes in England and Scotland, I followed the route stage by stage. The material provisions are marvels of suitability.

"The hospitals of from 800 to 1,200 beds each are models of order and neatness. That is evident on the surface. One such had handled 500 cases from the Somme on the morning of the day of our visit. Nothing seemed to be lacking. But the doctors and nurses are the outstanding factors. Continuous contact with the wounded has not bred callousness but rather the beautiful quiet of controlled gentleness and strength. The medical profession of Canada has evolved for itself a new nobility through the fine service which makes men and women great.

"Then there are hospital trains fitted with berths for lying down cases and easy seats for sitting cases. The evacuating from a group of hospitals having some 26,000 beds is done by about 50 motor ambulances furnished by the Canadian Red Cross Society and operated by the British Red Cross Society. Then there are hospital ships fitted with berths and rests to receive men on stretchers. These are handled gently, skilfully and quickly by experienced men. They are lowered to under decks by specially designed lifts. The contented smile on the broken men as they start for Blighty is like gentle moonlight on a quiet sea after a storm.

"The Red Cross Society is the handmaid for the military medical service at every turn. It supplements what the military authorities provide and do. The women of Canada cannot hear at first hand the words of gratitude for the supplies and comforts they have made and sent. They cannot individually see the thankful look of

**"The Only One"**

*THE Mutual Life of Canada is the only life insurance company in Canada established and operated on the Mutual Basis.*

This means that The Mutual Life of Canada is absolutely the only company ever organized in this country for the express purpose of selling life insurance at net cost.

Every dollar earned by The Mutual Life of Canada is used to increase the insurance for the same premium or to give the same insurance for a reduced premium.

Not one cent of Mutual Life profits is used to pay interest upon private capital—The Mutual is "a family affair," but the family consists of 55,000 members.

The Mutual Life of Canada is the only truly democratic, "people's" insurance company ever organized in the history of this country—every policyholder has the franchise, and helps to control the company.

**The Mutual Life**  
Assurance Company of Canada  
Waterloo, Ontario

**Choicest Holstein-Friesians**  
"We Breed for Type and Production"

Lakeview Dutchland Hengerveld 2nd heads our herd. He was grand champion at the Canadian National Exhibition and Western Fair, 1910. His 3/4 sister is Canadian Champion 3-year-old, 34.66 lbs. butter in 7 days. He shows great transmitting powers, being the sire of winners at London and Toronto. Our present offering consists of young bulls out of high-testing R. O. M. dams. Prices within reach of all. Write for extended pedigrees and prices.

**W. G. BAILEY, R.R. No. 4, Paris, Ont. Oak Park Stock Farm.**

**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

**35 LB. BULL FROM THE HET LOO HERD**

(His dam and sire's dam average 35.55 lbs. of butter in 7 days)  
3 months old and a show individual. Sire, Avondale Pontiac Echo, a son of the famous May Echo Sylvia, World's champion milk cow; Canada's first 40 lb. cow. Dam, Roxie Concordia, 30.02 lbs. butter; 676.5 lbs. of milk in 7 days.  
We also have a 17 months' bull by King Pontiac Artis, Canada, and out of a 25 lb. sister of the great May Echo. Another, same age by Dutchland Colantha Sir Mona, and from the noted 25 lb. show cow, Cherry Vale Winner. Come and see these, you will like them.  
**Gordon H. Manhard, Sup. W. L. Shaw, Newmarket, Ont. Stops 69 Young St., Toronto and York Radial Cars.**

**HOLSTEIN CATTLE**

Our present offering is a bull born February 1916. Dam gave 106 lbs. milk a day, sire's dam 116 lbs. a day. Nicely marked and a show bull. We make a specialty in foundation stock.  
**D. C. FLATT & SON, R. R. No. 2, Hamilton, Ontario**

**DUMFRIES FARM HOLSTEINS**

Think this over—we have 175 head of Holsteins, 50 cows milking, 25 heifers due to calve in the fall and 60 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.**

**HOSPITAL FOR INSANE, Hamilton, Ont.**

Holstein bulls only for sale, four fit for service, one being a son of Lakeview Dutchland Lestrangle, and the others from one of the best grandsons of Pontiac Korndyke, and large producing, high-testing R. of P. cows. **APPLY TO SUPERINTENDENT.**

**CLOVER BAR HOLSTEINS**

We are offering at the present time, a few young bulls, two of which are fit for service, from high-testing dams and sired by Francy 3rd Hartog 2nd, whose two nearest dams averaged 32 lbs. butter in 7 days and 103 lbs. milk per day. Prices reasonable. **PETER SMITH, R.R. No. 3, STRATFORD, ONT.**

**PIONEER FARM HOLSTEIN HERD**

Of long-distance record makers, the kind that milk heavy and test around 4 per cent. the whole year. Of the six highest butter-fat-record two-year-olds in Canadian R.O.P., one half were bred at Pioneer Farm. Young bulls for sale from dams of the same breeding as these and sired by Canary Hartog, whose 3 nearest dams average 30 lbs. butter in 7 days and 108 lbs. milk in one day.  
**WALBURN RIVERS, R.R. No. 5, INGERSOLL, ONT. Phone 343L. Ingersoll Independent.**

**ORCHARD LEIGH HOLSTEINS**

Offers several young bulls from 7 to 13 months old, all from officially tested dams with records up as high as 29.20 lbs. of butter in 7 days. These are a good lot, sired by our own herd bulls, King Veeman Ormsby and Sir Midnight Lyons Walker. Could also spare a few females.  
**JAS. G. CURRIE & SON, (electric car stops at the gate) Ingersoll, Ontario**

# Weight Versus GAS

To offset the high price of gasoline, the best engineering talent in the world has perfected light-weight steels and scientific body construction. Despite its scarcity, aluminum is largely used. Weight reduction has been accomplished in every part of the car except the top.

All that is needed in a good top is found in



**Single Texture Topping**

It is guaranteed one year against leakage. No top has a finer appearance, and although light in weight, it has the required strength and is made to last as long as the car.

Specify RAYNTITE Single Texture Topping for your 1917 car or re-top your auto with this guaranteed, light-weight, long service top material.

Ask for free booklet: "The Top Question" and samples of Rayntite Topping.

**DU PONT FABRIKOID COMPANY TORONTO ONT.**



## Less Labor--More Profit

Every Canadian Dairy farmer should have the above as his motto. He can accomplish it only by securing a herd of dairy cattle that will give him heavy production of high-testing milk. Ayrshires fulfill these conditions. If you are planning to start a pure-bred herd that will produce milk right up to the standard demanded in our Canadian cities, write for full information to:

**The Canadian Ayrshire Breeders' Association**

W. F. Stephen., Sec. Huntingdon, Que.

## 15 95 AMERICAN CREAM SEPARATOR

Sent on trial. Fully guaranteed. Easy running, easily cleaned. Skims warm or cold milk. Bowl a sanitary material. Shipments direct from Winnipeg, Toronto and St. John. Whether large or small dairy, write for handsome catalogue. Address:

Box 5, 200 American Separator Co., Bainbridge, N.Y.

## Choice Offering in Ayrshires

at Special Prices—Several young bulls of serviceable ages. All from R.O.P. sires and dams. Come and see them. Jno. A. Morrison, Mt. Elgin, Ont.

**Glencairn Ayrshires** Herd established 40 years. Producing ability from 8,600 to 11,022 lbs. If that sort of production appeals to you, we have heifers all ages and young bulls for sale. Thos. J. McCormick, Rockton, Ont. Copetown Sta., G.T.R.

**JERSEY BULLS.** For sale—Knoolwood's Raleigh, sire Fairy Glen's Raleigh (imp.), 22 daughters R.O.P.; dam Eminent Honey Moon (imp.) R.O.P. 596 lbs. butter; reserve champion on Island. Capt. Raleigh ready for service, sire Knoolwood's Raleigh, dam Mabel's Post Snowdrop; first as calf, 1914, first Junior Champion, 1915, 2nd 1916 Toronto. Milked 38 lbs. day, 6 per cent. milk, first calf. Ira Nichols, Burgessville, Ont. R.R. No. 2.

those to whom they minister. But somewhere, somehow there must surge into their souls the sense of reward although they look for none.

"The need for Red Cross Service is still great, and Canadian women, I am sure, will no more fail to meet it than will the Canadian men with the forces to do their duty. Out of its present abundance the Canadian Red Cross Society gives 5,000 cases of hospital supplies per month to the French organizations. That action is greatly appreciated in France, and will no doubt be an encouragement to every Canadian Red Cross worker."

## Questions and Answers. Miscellaneous.

### Drain from Sink.

I am considering putting in a drain from a kitchen sink, making outlet of same in a disused ravine 50 feet from sink. Would like to make a concrete drain. There is only a small quantity of water to be disposed of.

1. How large should drain be?
2. Must it be placed below frost line, soil heavy clay?
3. Approximately, what quantity of concrete would be needed?

C. W. W.

Ans.—A four-inch concrete tile would be large enough to carry all the water. It should be placed below the frost line as there will be times when only a little water will be emptied in the sink at once. If it does not contain force enough in itself to flow readily it may freeze in the drain. The next water that comes freezes and consequently blocks the drain. If tile are used a little over one-third cubic yard of sand and 2 1/4 bags of cement would be sufficient.

### Estimating Weight of Animal.

What is the proper way to measure an animal, in order to tell how much it weighs?

2. How many tons of corn will a silo 12 by 35 feet hold? A silo of this dimension had 20 feet of corn in it last year, but it settled down to 12 feet. How many tons would those 12 feet contain?

H. E. G.

Ans.—1 Estimating the weight of stock by measurement can only be done approximately. A rule which was formerly used in the Old Country before scales came generally into use was as follows: The girth and length are measured in inches and the animal's body is considered as a cylinder. In order to find the cubical contents the circumference is divided by twenty-two sevenths. This gives the diameter, which must be squared and multiplied by .7854 which gives the area of the end of the cylinder. Multiply the area by the length and you have the cubical contents, divide this by 576 to get the number of imperial stones and multiply by 14 to get the weight in pounds. There is another rule which is sometimes used, but we cannot vouch for its accuracy. Multiply the girth in inches immediately behind the shoulder by the length in inches and divide by 144. If the girth is from three to five feet, multiply by 15; if from 5 to 7 feet multiply by 23; and if from seven to nine feet multiply by 31 to get the number of pounds live weight.

2. A silo of the dimensions given will hold approximately 84 tons of silage. A cubic foot of silage weighs about 30 pounds which gives 2 1/2 tons in each foot in depth of a silo 12 feet in diameter. Twelve feet would therefore contain 30 tons of silage.

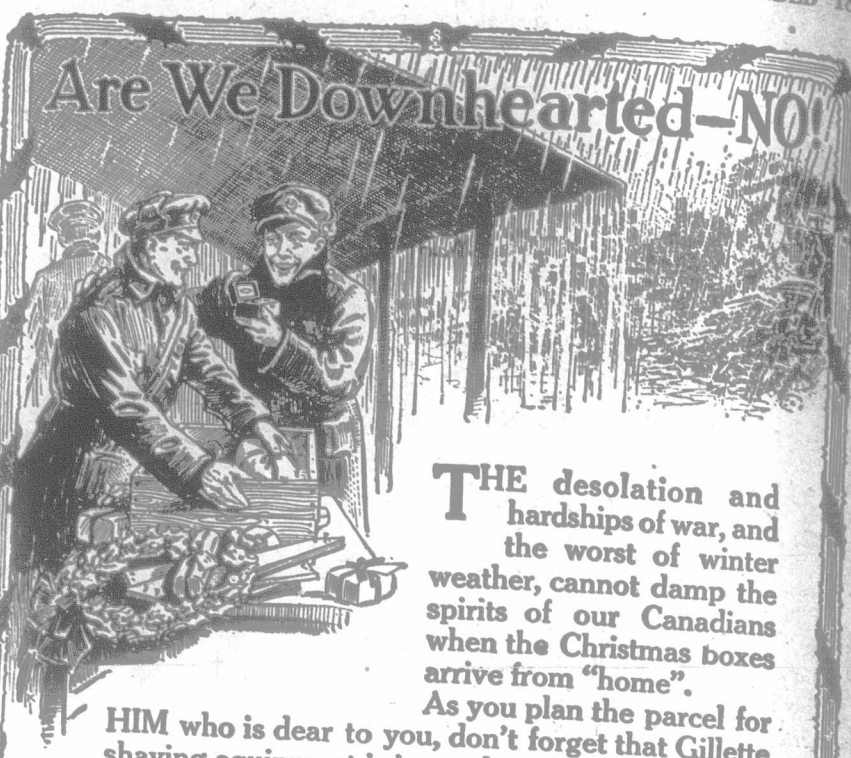
### Veterinary.

#### Ram With Cough.

Three-year-old ram has a bad cough. There is no nasal discharge, but almost chokes sometimes. He lies around and appears dull.

F. A. S.

Ans.—The symptoms indicate tuberculosis, for which nothing can be done. If the trouble be some ordinary throat trouble relief can be given by applying mustard mixed with equal parts of oil of turpentine and water to his throat and then wrapping with flannel bandages. Also give him 10 grains chlorate of potassium and 5 grains quinine three times daily. It would be wise to have him examined by a veterinarian. V.



Are We Downhearted—NO!

HIM who is dear to you, don't forget that Gillette shaving equipment is just as keenly appreciated on active service as are sweaters, mitts and "cats". If he already has a

THE desolation and hardships of war, and the worst of winter weather, cannot damp the spirits of our Canadians when the Christmas boxes arrive from "home".

As you plan the parcel for

## Gillette Safety Razor

send him a generous supply of Gillette Blades, for probably he is sharing the razor with his pals who are not so fortunate.

Clean shaving is in high favor among our troops—because it is sanitary—because it makes the dressing of face wounds easier—but most of all because of its bracing effect. The Gillette is best for the job—and the man who has one is most popular in his platoon.

Whatever else you put in his Christmas box, be sure there's a Gillette Safety Razor or a supply of Blades. You can buy from your Hardware Dealer, Druggist, Jeweler or Men's Wear Dealer—"Bulldogs" and Standard Sets at \$5.00—Pocket Editions at \$5.00 and \$6.00—Combination Sets at \$6.50 up.

**Gillette Safety Razor Co. of Canada, Limited**

Office and Factory—THE GILLETTE BLDG., MONTREAL

217

## The Windsor Gasoline Engine

BUILT FOR YEARS HAS BEEN THOROUGHLY TRIED NEVER FOUND WANTING

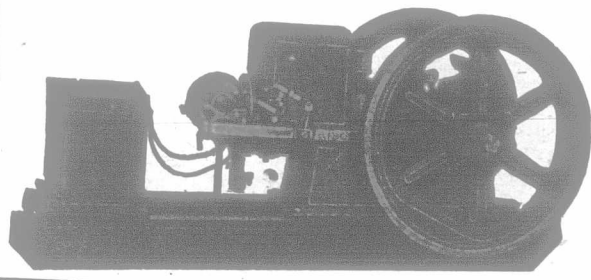
It is easy to start, full of power, economical and thoroughly practical in every respect. It is fully guaranteed by the manufacturers and by us, both as to power developed, and as to

durability. You are taking no chance in trying a WINDSOR.

To introduce it speedily to the Canadian trade, we are making special prices, as follows:

1 1/2 horse-power, on skids.....	\$ 36.42
2 1/2 " " " " " " " " " " " " " " " " "	52.95
4 1/2 " " " " " " " " " " " " " " " " "	82.95
6 " " " " " " " " " " " " " " " " "	119.80

Send for catalogue and full description.



**Windsor Supply Co.**  
Farm, Thresher, Auto Supplies  
WINDSOR, ONTARIO

## 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 Jno. Pringle, Prop.

Canada's Most Beautiful Jersey Herd

Present Offering—Some high-class bull calves ready for service, from Record of Performance dams, including grand champion bull at last Western Fair and his full brother; also cows and heifers. State distinctly what is wanted, if writing. We work our show cows and show our work cows.



**Glenhurst Ayrshires** For 50 years I have been breeding the great Floss tribe of Ayrshires, dozens of them have been 60-lb. cows; I have lots of them get 60 lbs. a day on twice-a-day milking. Young bulls 1 to 10 months of age, females all ages. If this kind of production appeals to you, write me.

**James Benning, Williamstown, Ont.**

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ANOTHER BARK

SIXTH LOSS IN BRITISH CASUALTIES

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## What a Price to Pay for the Lack of Safe Roofing

**ANOTHER BARN BURNED**  
 SIXTH LOSS IN VICINITY FROM SETTING OF LIGHTNING CAUSE, IN FEW WEEKS  
 (Special Report—The above barn, which was one of the best in the neighborhood, was destroyed by lightning on the 2nd inst. The loss was estimated at \$10,000. The cause was the setting of lightning rods on the roof, which were not properly connected to the ground. The lightning rods were set in the eaves of the roof, and the lightning struck the rods, and the current ran down the rods, and set the roof on fire. The barn was a large one, and was used for storing grain and other crops. The loss was a heavy one, and the farmer is now without a barn. The lightning rods were set in the eaves of the roof, and the lightning struck the rods, and the current ran down the rods, and set the roof on fire. The barn was a large one, and was used for storing grain and other crops. The loss was a heavy one, and the farmer is now without a barn.

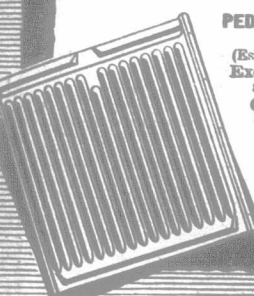
## PEDLAR'S "GEORGE" SHINGLES

EVER think how often you too have barely escaped a similar disaster—or how soon destructive flames may at any moment envelop all you possess and hold dear?

Real protection insists that you roof your barns and home with indestructible material—Pedlar's "GEORGE" Shingles. Thus you rob lightning and fire of their power to destroy, and, what's more, obtain the base rate of insurance.

Pedlar Shingles are also proof against wind, rain, rust and rot. Easy to put on. Keep your barn sound & regenerate. Write for the "Right Roof" Booklet LF

THE PEDLAR PEOPLE LIMITED  
 (Established 1867)  
 Executive Offices and Factories:  
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## Cotton-Seed Meal

GOOD-LUCK BRAND

Calf Meal, Oil Cake Meal, Flax Seed, Distillers' Dried Grains, Gluten Meal, Brewers' Dried Grains, Bran, Shorts, Poultry Feeds.

Write for Prices.

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Yield Big Results

Write for Booklet.

THE ONTARIO FERTILIZERS, LTD.  
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### LIVINGSTON BRAND

The purest and best

### OIL CAKE MEAL

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

### SHROPSHIRE

We have something particularly good in Ram and Ewe lambs this year; and a choice lot of young Shorthorns, bulls and heifers. Peter Christie & Son, Manchester P.O., Port Perry, Ont.

### Tower Farm Oxfords

Champion Oxford flock of Canada. Choice Oxfords of all ages for sale. Prices reasonable.  
 E. Barbour & Sons, R. R. 2, Hillsburg, Ont.

### Locust Lodge Leicesters

A few young rams for sale. Good breeding and quality.  
 C. E. WOOD, Freeman P.O., Ontario

### Gossip.

#### \$11,000 for a Duthie Bull Calf.

Shorthorn cattle have sold for remarkably high figures on this side of the Atlantic, but it is in the United Kingdom where the highest prices are realized. One of the most sensational sales on record was that recently held at Tillycairn, Aberdeenshire, Collynie, when William Duthie, the noted Shorthorn breeder, held his annual auction sale of bull and heifer calves. There was a large gathering of breeders and exporters from various parts of the United Kingdom, and, judging from the prices realized, they were anxious to secure some of the high-class stock from this noted herd. The sensation of the day was the selling of the red roan, Clipper bull calf, Clipper King, by Masterstroke. The opening bid was 500 guineas, and amid great excitement the price ran up by bids of 100 guineas to 2,200 guineas, at which figure Matthew Marshall, Bridgebank, Stranraer, became the purchaser. This is a world's record for a bull calf which was not quite six months old. A red bull calf of the Uppermill Bessie family brought 1,400 guineas, and 1,050 guineas were realized for a red roan bull calf of the Golden Drop family, sired by Knight of Collynie. A white bull calf of the Duchess of Gloucester family, sired by Masterstroke, and a roan calf of the Lavender family each brought 850 guineas. Thus it will be seen that it was an extraordinary sale all through. The average for 23 bull calves was £616 6s. 1d., which is the highest Mr. Duthie has ever obtained at his annual sales, and it was the world's record sale for bull calves of the same age. The highest average price received by Mr. Duthie prior to this was £409 16s. 3d., which was secured for 17 bull calves at his annual sale in 1907.

Although the heifers did not bring as high prices as the bulls, the bidding was brisk throughout and some high prices were realized. A roan Rosewood heifer brought 400 guineas, and a red Sittyton Secret sold for 320 guineas. Another red calf of the same breeding went at 300 guineas, and a red Princess Royal brought the same figure. There were 15 heifers sold, and the average price was £177 10s. 4d. These figures convey an idea of the value Shorthorn breeders place on good stock. Representatives of certain families brought remarkably high prices.

### Questions and Answers. Veterinary.

#### Tetanus.

On October 9 my driver became stiff and his hind legs seemed sprawled out. Next day I had difficulty in getting the bit either in or out of his mouth. He can move his jaws a little and also open his mouth slightly. He salivates a great deal. His nose protruded forwards and upwards, and the muscles of his neck and other muscles became very hard. I treated him myself, as there is no veterinarian in this section. He is considerably better now, but his bowels do not move freely and he eats little. He nibbles a few carrots, etc.

A. M.

Ans—Your horse has had a slight attack of tetanus (lock jaw). The approved treatment is the daily hypodermic of large doses of anti-tetanic serum. This is very expensive and requires the service of a veterinarian. It is too late now for this to be effective. It is highly probable that he will be much better by this time as most cases, where the jaws do not become firmly locked in the early stages, recover. Keep him as quiet as possible, give him sloppy food or water with oat meal in it, also give a few carrots or anything he will eat. Put a small teaspoonful of solid extract of belladonna well back on the root of the tongue 3 times daily. If it is necessary to act upon the bowels give him a pint of raw linseed oil as a drench, by the mouth, which can be opened sufficiently for this purpose. A veterinarian would give him a hypodermic injection of about 1 grain of eserine in arcolin, but an amateur cannot do that.

THIRTY-THIRD ANNUAL  
**Ontario Provincial WINTER FAIR**  
 Guelph, Ontario, December 1st to 8th, 1916  
 ALL ENTRIES MUST BE MADE ON OR BEFORE NOVEMBER 15th.  
 If you do not receive entry form by Nov. 1st, write the Secretary.  
 W. W. BALLANTYNE, President, Stratford, Ont.  
 R. W. WADE, Secretary, Parliament Buildings, Toronto, Ont.

**More Wool and More Mutton**  
  
 More Wool and better grade Wool comes from sheep whose fleece is kept free from ticks by the use of Zenoleum, the great standard Coal Tar Disinfectant. Zenoleum-treated sheep have fine, white fleece, which brings best price. Sheep kept healthy by Zenoleum put on weight and are more profitable for marketing as mutton.  
 As a "dip" Zenoleum is clean, and does not leave fleece stained or greasy. It is a powerful germicide, stronger than carbolic acid, yet is not poisonous, is not inflammable and is not injurious to handle nor does it burn or irritate the skin as most other preparations do. Used by 50 Agricultural Colleges. FREE copy of our Booklet, Diseases of Livestock and Their Cure, sent post-paid on request.  
**ZENNER DISINFECTANT CO.**  
 Sandwich St. East, WINDSOR, ONT.

OUR PRICE LIST will be ready about NOV. 1ST. Write for a copy. We pay express or postage charges on all shipments. PROMPT RETURNS.  

# RAW FURS

  
 AND GINSENG  
 E. T. CARTER & CO., 84 Front Street East, TORONTO

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**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.

THE OLD ORIGINAL SUMMER HILL FARM  
 WHERE YOU'LL ALWAYS FIND A  

## FIRST-CLASS OXFORD

  
 I have eighty head of very fine yearling ewes for sale, also a number of yearling rams for show purposes or flock headers, fifty head of ram lambs and fifty head of ewe lambs, all bred in the purple. All recorded and first-class individuals. No grades handled except by order.  
 Peter Arkell & Co., Prop. Mildmay, G.T.R. Stn. Box 454, Teeswater, C.P.R. Stn. VISITORS WELCOME

**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 PRICES REASONABLE  
**HENRY ARKELL & SON, ROUTE 2, GUELPH, ONTARIO**

**MAPLE SHADE SHROPSHIRE**  
 A number of splendid ram lambs, fit for service this fall. Sired by one of the best imported rams that we ever owned, and from imported dams. Prices and description on application.  
**W. A. DRYDEN, Maple Shade Farm, Brooklin, Ont. Brooklin, G.T.R., C.N.R., Myrtle, C.P.R.**

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

## BOG SPAVIN

Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came.

**FLEMING'S SPAVIN CURE (Liquid)** is a special remedy for soft and semi-solid blemish—Bog Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be imitated. Easy to use, only a little required, and your money back if it ever fails.

**Fleming's Vast-Pocket Veterinary Adviser** describes and illustrates all kinds of blemishes, and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write.

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

## YOUNG TAMWORTH Sows & Boars

FOR SALE

**Herolds Farms, Beamsville, 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 prize-winning stock. Also one Shorthorn bull, 18 months old.  
**G. W. MINERS, R. R. 3, EXETER, ONT.**

### TAMWORTHS

Young sows bred for Nov. and Dec. farrow, and a nice lot of boars ready for service. Write  
**John W. Todd, R.R. No. 1, Corinth, Ont.**

**Yorkshires** Sows bred, others ready to breed, and younger boars 2 and 3 months, from carefully selected stock.  
**Shropshires** Ewes, 2 to 4 years, ewe and ram lambs. Write us your wants.  
**WM. MANNING & SONS, Woodville, Ont.**

**Cloverdale** Berkshires and Shropshires—In Berkshires I can furnish boars or sows, all ages, pairs not akin. All breeding stock imp. or from imp. stock. In Shropshires can furnish rams or ewes, any age, from imp. stock. Prices reasonable.  
**C. J. LANG, R.R. No. 3, Burketon, Ont.**

**CLEARVIEW CHESTER WHITES** For many years my herd has won the highest honors at Toronto, London, Ottawa and Guelph. For sale are both sexes of any desired age, bred from winners and champions.  
**D. DeCoursey, R.R. No. 5, Mitchell, Ontario**

**Lakeview Yorkshires**—If you want a brood sow, or a stock boar of the greatest strain of the breed (Cinderella), bred from prize-winners for generations back, write me. Young pigs of all ages.  
**JOHN DUCK, Port Credit, Ontario**

**Sunnyside** Chester Whites and Dorsets. In Chester Whites we have both sexes, any age, bred from our champions of many years. In Dorsets we have ram and ewe lambs by our Toronto and Ottawa champion, and out of Toronto, London, and Guelph winners. **W. E. Wright & Son, Gleanworth, Ont.**

**Pine Grove** Yorkshires. Bred from prize-winning stock of England and Canada. Have a choice lot of young pigs of both sexes, pairs not akin, to offer at reasonable prices. Guaranteed satisfaction.  
**Joseph Featherston & Son, Streetsville, 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 Weir & Son, Paris, Ont. R.R. 1.**

**Townline Tamworths** We can supply worths of both sexes and any desired age of superior quality. Also Leicester ram and ewe lambs, Fekin ducks, Langshan cockerels and pullets. Write us your wants. **T. Readman & Son, Streetsville, Ont. R. M. D.**

**Duroc Jerseys** For 13 years our breeding stock has been choice selections from the champion herds of the U. S. We have both sexes, all ages, over 100 to select from. Bred from champions. **L. A. Pardo & Sons, R. R. 1, Charing Cross, Ont.**

**Berkshire Pigs** Registered stock, choicely bred, young boars and sows in pig, all ages. Can supply pairs not akin.  
**CREDIT GRANGE FARM, J. B. Pearson, Mgr. Meadowdale, Ont.**

**Morrison Tamworths and Shorthorns** Bred from the prizewinning herds of England. Tamworths, both sexes, 140 to choose from. Shorthorns, 5 bulls, from 5 to 10 months old, reds and roans, dandies. Females of the best milking strains. **Chas. Currie, Morrison, Ont.**

**YORKSHIRES and OXFORDS** Choice young pigs, both sexes; two boars fit for service. A few good ram lambs. We guarantee satisfaction.  
**B. ARMSTRONG & SON, Codrington, Ont.**

**DUROC JERSEY SWINE** A few choice sows bred, both sexes, all ages, bred from imported stock. Heading herd: Farough's King =2012=, Brookwater, B.A.B.'s King 5042 from U.S. Importer and breeder. **CHARLES FAROUGH, Maidstone, R. R. No 1, Ont.**

### Questions and Answers. Miscellaneous.

#### A Boundary Tree.

A and B live on adjoining farms, the rail line fence being a little on B's land, but inside of fence on A's side. A cuts it down and into stove wood and draws it home at once. Had he any right to take it without consulting B? A since has set posts for a wire fence. If A had a legal right to the tree could B not have the same right to take the rails that are on his land? The fence has been there a good number of years.

Ontario. W. P. C.

Ans.—A had no right to fell the tree and appropriate it to his own use without permission from B.

#### Copper Kettle.

Please answer through the columns of your paper these questions. I have one copper kettle for sale, weighing 35 pounds and holds 30 gallons.

1. What is it worth a pound?
2. Where can I get sale for it at once?

O. B. A.

Ans.—1 and 2. Copper commands a high price on the market at the present time. The best and surest way to secure a purchaser for your kettle is to place an advertisement in "The Farmer's Advocate." This paper is a medium through which seller and purchaser are brought in touch with one another.

#### Separating Whey.

Would like to know, through the columns of your paper, the feeding value of whey after it has been separated as compared with whey which has not been separated. Would it be a paying proposition to instal a butter plant in the average-sized cheese factory for the manufacture of whey butter?

D. S. R.

Ans.—Authorities who have experimented with feeding whey to hogs find that when ordinary whey is combined with barley and corn, 1,000 lbs. is worth as much as 100 lbs. of corn-meal. Separated whey has about 25 per cent. less feeding value. Ordinary whey contains about 93.4 per cent. of water; .7 per cent. ash; .3 per cent. protein; 4.8 per cent. carbohydrates, and .3 per cent. fat. It is doubtful if it would pay to instal machinery for making whey butter in the average cheese factory. In some factories where it was installed it is little used. It takes a lot of whey to make one pound of butter.

#### Concrete Wall.

I am thinking of building a cellar under the mow of my barn. The mow is 14 by 24 feet, 16 feet high, and will hold about twelve tons. If I build my cellar walls of cement and make them 8 inches thick, can I put sills in the cement? Will it carry the weight? How much cement will it take to build cellar 20 by 14 feet, 8 feet high, with wall 8 inches thick? How should I mix the cement?



M.H.H.

Ans.—The sills could be laid on the cement, but, while an 8-inch wall may be strong enough, we would prefer it a couple of inches thicker. A one-foot wall is frequently used, and in your case we would prefer it. It would be necessary to set it on a solid footing. If the wall is built 8 inches thick, about 14 cubic yards of gravel and 12½ barrels of cement will be required. If 12 inches thick, 20 cubic yards of gravel and 17 barrels of cement, provided the concrete is in the proportion of one of cement to 8 of gravel. The gravel, sand and cement must be thoroughly mixed.

#### CONSUMPTION OF MUTTON IN DIFFERENT COUNTRIES.

The latest figures show that 1,139,000,000 pounds of mutton and lamb are annually consumed in the United Kingdom. This is more than the amount consumed by the three next mutton-eating countries combined. United States has more than double the population of the United Kingdom, and comes second in consumption of mutton; the total being 602,000,000 pounds. France is third with an annual consumption of 353,000,000 pounds. As yet Canadians do not rank high as consumers of this class of meat.

**Why Pay Peddlers Twice My Price?**

## Look Out! WORMS!!

Hogs get sick and you don't know what's the matter. I want to tell you worms are the cause of many hog troubles. Here's the first great use of

## Dr. Hess Stock Tonic

### It Expels Worms

Try it on your shoats. A tablespoonful for each two hogs twice a day will do the business. Put it in the swill. Then look out for dead worms. See your shoats improve. A great conditioner—it cleans the system, gives appetite, improves digestion for cows, horses, sheep, hogs.

**25-lb. Pall, \$2.25; 100-lb. Sack, \$7.00**  
(Duty paid). Never peddled. Sold by a dealer in your town.

### Dr. Hess Dip and Disinfectant

destroys disease germs—makes health conditions for animals. A powerful disinfectant as well. Good for household use.


**My Guarantee**

So sure am I that Dr. Hess Stock Tonic will expel the worms from your hogs and keep your stock in sleek condition, that Dr. Hess Dip and Disinfectant will destroy disease germs and foul odors, that I have authorized my dealer in your town to supply you with enough for your stock, and if these preparations do not do as I claim, return the empty packages and my dealer will refund your money.

**Dr. Hess Poultry Pan-a-co-a** Tones up dormant egg organs and helps to make hens lay. Economical—a penny's worth enough for 30 fowls daily. 1½ lbs. 25c; 5 lbs. 85c; 12 lbs. \$1.75; 25-lb. pall, \$2.50 (duty paid). 1 guarantee.

**Dr. Hess Instant Louie Killer** Should be used freely in the dust bath for poultry. Destroys lice for 30 fowls daily. 1½ lbs. 25c; 5 lbs. 85c; 12 lbs. \$1.75; 25-lb. pall, \$2.50 (duty paid). 1 guarantee.

*Fine stock book sent free on request*  
**DR. HESS & CLARK, Ashland, Ohio**



## YORKSHIRES FOR SALE

Young sows due to farrow soon; also young pigs, both sexes, ready to wean. Address:

**WELDWOOD FARM, Farmer's Advocate, London, 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 Brantford and Hamilton Radial

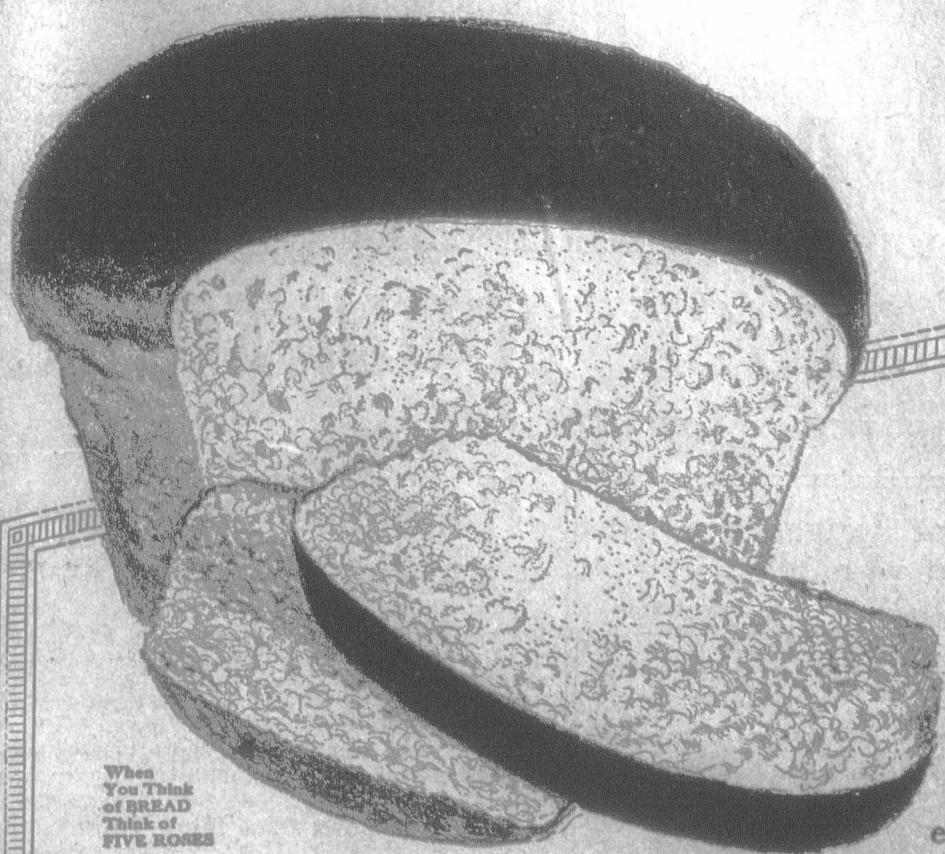
**DUROC JERSEY SWINE, JERSEY CATTLE**  
In Duroc Jerseys we have either sex of any desired age, bred from winners and champions for generations back. In Jerseys we have young cows in calf and young bulls, high in quality and high in producing blood.  
**MAC CAMPBELL & SONS, NORTHWOOD, ONT.**

**TAMWORTHS AND SHORTHORNS**  
Young sow, due to farrow within a month. Young pigs, both sexes, all descendants of Imp. and Silver Medal Stock. Ten young heifers and cows, grand milking strain, in calf to Broadlands No. 5790  
**A. A. COLWILL, R.M.D. No. 2, NEWCASTLE, ONT.**

**CHERRY LANE BERKSHIRES AND TAMWORTHS**  
In 1915 we made a clean sweep at all the Western shows in Berkshires and Tamworths; we have for sale both breeds of any desired age, winners in the West. First and third prize Berkshire boars at Guelph, first and champion Tamworth boar at Guelph.  
**S. Dolson & Son, Norval Station, Ont.**

**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. BRETHOUR & NEPHEWS, Burford, Brant County, Ont.**

**When Writing Please Mention Advocate**



When You Think of BREAD Think of FIVE ROSES

## Make Your Bread Enticing

Bread is so essential to growth and vitality, you should encourage your folks to eat more. Win them to bread-eating by making your bread *irresistible*.

Baked from FIVE ROSES flour, your loaf enjoys a unique personality that belongs to none other.

Appearance, flavour, digestion, economy — all are served by using

# Five Roses<sup>★</sup> FLOUR

for Breads-Cakes Puddings-Pastries

In the same splendid loaf, let it bring *you* this extra quality: —a fulness of nutlike flavour, a sweetness that is envied by the best cooks everywhere.

- a crisp, thin crust that is crinkly and toothsome.
  - an elastic texture, porous and well-risen, that retains for days its original freshness, the kind that cuts without crumbling.
  - every slice not only a delight, but a source of vitality, alive with the matchless nutrition of Manitoba's richest wheat.
  - a downy lightness ensuring ready and complete digestion.
- FIVE ROSES brings *more*—it brings *economy*. Because of its uncommon strength, it absorbs more liquid and produces more loaves with less exertion.

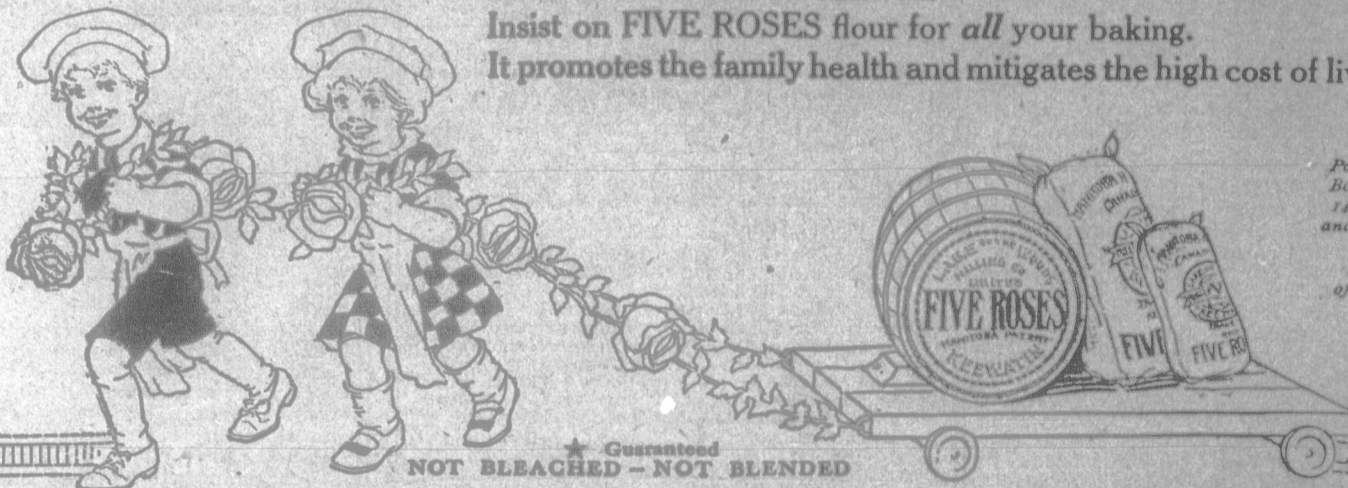
Insist on FIVE ROSES flour for *all* your baking. It promotes the family health and mitigates the high cost of living.

**OVER 200,000 WOMEN HAVE SENT for this 144-PAGE BOOK**

It gives many uses for stale bread and cake: French toast, bread puddings, bread crumbs, croquettes, pulled bread, bread dust. A splendid chapter on sandwich making.

**ALL ABOUT BREAD AND CAKE MAKING**

The famous FIVE ROSES Cook Book also gives complete, understandable information on pastries, tarts, patties, biscuits, buns, rolls, fried cakes, cookies, etc. Over 200 tested cake recipes. Crowded with the best selected recipes of thousands of successful users of FIVE ROSES flour throughout Canada. Send for your copy of the FIVE ROSES Cook Book. Mailed for 10 two-cent stamps. Address Dept. T. LAKE OF THE WOODS MILLING CO. LIMITED, MONTREAL.



★ Guaranteed NOT BLEACHED - NOT BLENDED

Packed in Bags of 7, 14, 24, 49, and 98 lbs. Also Barrels of 98 and 196 lbs.

**TRAPPERS!**  
Send your  
**RAW FURS**  
to JOHN HALLAM

and receive highest cash prices. We send money the same day the furs are received. Charge no commissions—and pay all charges. We have paid out millions of dollars to thousands of trappers in Canada who send their furs to us because they know they get a square deal, and receive more money for their furs. You will also. We buy more furs from trappers for cash than any other live firm in Canada. Hallam's Trapper Guide (90 pages) Hallam's Sportsmen's Catalogue Hallam's Raw Fur Quotations Hallam's Fur Style Book (52 pages) Sent free on request. Address as follows:  
**JOHN HALLAM Limited**  
117 Hallam Building, Toronto.

**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, Parliament Buildings, TORONTO, ONT.; Minister of Lands, Forests and Mines

**AGRICULTURAL LIME**

The farmers of England have limed their meadows and pasture lands in the fall for hundreds of years. Why? You lime yours and the question will be answered; also lime your plowed clay land this fall. You will find it more tillable and earlier to get on to. That means earlier seeding, and be sure to seed clover where you put lime. Write us for prices, if we have no agent in your locality.  
**HENDERSON FARMERS' LIME CO., WOODSTOCK, ONT.**

**H. Fraleigh, Forest**

- LINSEED MEAL
  - FLAX SEED
  - OIL CAKE
  - COTTON SEED MEAL
- Write For Prices

**OATS AND POTATOES**

For Sale in Car Lots  
**LAING BROS., Winnipeg, Man.**  
Yorkshires of best winning strains. Choice lot of suckers, both sexes at right prices. Also Mammoth Bronze Turkeys, White Embden Geese, Indian Runner Ducks, and bred-to-lay S.-C. Brown Leghorns.  
T. A. KING, MILTON, ONT.

# There's More Money in Live-Stock

that is kept in top-notch condition with

## INTERNATIONAL STOCK FOOD TONIC

"3 FEEDS FOR 1 CENT"

Thirty years' use by hundreds of thousands of farmers has proved beyond the shadow of a doubt that International Stock Food Tonic literally works wonders with all kinds of Live Stock. This fact is no longer questioned—but those who hear of International Stock Food Tonic and use it for the first time cannot help wondering WHY it does so much good.

### The Reason for its Phenomenal Success

If your animals were running wild, as Nature intended, and as their ancestors did, they would be guided by their instincts to eat certain herbs, roots and seeds that would keep their digestive organs in perfect condition. This they cannot do on a modern farm, and lacking these natural tonics and conditions they do not fully digest or assimilate the food you give them.

Here is just where International Stock Food Tonic comes in. It is the most perfect combination ever devised by the medicinal values of the roots, seeds, barks and herbs that live stock need. It tones up an animal's digestive system to the point where it will get out of the feed all the good there is in it. With its help the food value of the grain and hay, ensilage and roots you feed is all turned into meat or milk, wool or work, instead of going, in large proportion, on to the manure pile.

Without eating any more, the animals that get International Stock Food Tonic thrive much better and produce a great deal more. This extra is practically all profit, for the cost of the International Stock Food Tonic itself is scarcely large enough to be considered.

Equally important is the fact that International Stock Food Tonic makes animals so healthy and vigorous that they can escape or throw off diseases that would pull them down and lessen your returns.

#### International Poultry Food Tonic

Makes Poultry Healthy. Makes Hens Lay.



For over 25 years INTERNATIONAL POULTRY FOOD TONIC has been used by Poultrymen in all parts of the World. It greatly increases the egg production of any flock as it tones up and stimulates the egg-producing organs. This preparation also keeps poultry healthy and prevents disease. Helps to fatten poultry for market rapidly and cheaply. Its cost to use is remarkably small. Your Poultry Profits will be greatly increased if you will use this preparation.

For sale in 25c, 50c and \$1.00 packages; also 25-pound pails at \$3.75.

### The best Judges are the Men who USE it!

I have been using your International Stock Food Tonic now for three years on all my stock, especially horses and cattle. I find it pays me well to use it as it keeps them healthy and thriving, improves the appetite and increases the quantity of milk.

I never have a sick horse, not even colic and I attribute this to the regular use of International Stock Food Tonic. I find that its use gives the hair of the animals a better appearance. It certainly keeps stock in fine shape and I would not want to be without it.—John S. Holden, President of Markham Milk Producers Association, Markham, Ont., R. R. No. 2.

I have used your valuable International Stock Food Tonic for over fifteen years. My stable is never without it; simply because I would not do without it as long as I can buy it. I always buy it by the pail—generally fifteen dollars' worth. Being a constant user of it, I can recommend it to anyone.—S. S. Rombough, Glen Miller, Ont.

I have used your International Stock Food Tonic and I find it a good preparation for all kinds of stock. It produces more fat in the least time than anything I know of.—J. Hughill, Mervin, Sask.

I have used your International Stock Food Tonic and find it an invaluable addition to the diet of all my stock.—J. A. Williams, Barons, Alta.

I have used International Stock Food Tonic for five years now and it is a fine preparation for all animals, especially for over-worked horses,—to build them up again, besides which, it is so reasonable to purchase.—E. Cotterell, Aneroid, Sask.

I have used International Stock Food Tonic on a number of run-down horses. It is all right for any kind of stock, but especially for horses.—J. Ernest Johnson, Klapox, B.C.

International Stock Food Tonic is good and I am using it every day, and couldn't get along without it and out of the 400 pounds I purchased in September, I only have 25 pounds left and am purchasing a further supply at once.—A. J. Brooker, Hog Breeder, South Woodslee, Ont.

I have a fine bunch of hogs to turn off this fall, thanks to International Stock Food Tonic. I think it is splendid for all stock. My two mares did fine and had two fine looking colts. My yearling colts also look fine and my calves did better than in previous years. I shall always recommend it to anyone when the chance occurs.—James Babbirk, High Prairie, Alta.

In regard to your International Stock Food Tonic would like to say that I have used it for a number of years and it certainly does all that you claim for it, especially for small pigs. I always feel safe in recommending it to anyone. Am feeding it now with good results, for with pork at the present prices we like to hurry the pigs along and your tonic certainly does it.—John D. Newcombe, R.F.D. No. 1, Mull, Ont.

International Stock Food Tonic is put up in 50c and \$1.00 packages, \$1.50 lithographed tins, and \$3.75 pails. For sale by dealers everywhere. Get a pail to-day. Refuse substitutes or imitations.

### Horses Work Better

for International Stock Food Tonic gives them new vigor and endurance—more life and "go"—their coats grow sleek and glossy.

It keeps horses healthy, stronger, and in general all round good condition. If you have any horses or colts for sale be sure and give them International Stock Food Tonic for 30 or 60 days. Its every day use will often add \$50.00 or more to their value, for it quickly causes them to greatly improve in general appearance.

#### Cows Give More Milk.

The Dairy Cow is simply a machine for turning feed into milk—and International Stock Food Tonic makes her a much more efficient one. With it she will digest and assimilate a far larger proportion of her ration, and return it to you in milk—butter fat—and profits.

#### Cattle Fatten More Easily.

Heavy stall-feeding without International Stock Food Tonic is almost sure to result in serious waste through un-assimilated nourishment. This wonderful Tonic keeps the digestive system toned up, so that the cattle can benefit fully from the extra feed, and put on beef faster and at far lower cost.

The progressive cattle owner cannot afford to fatten his cattle without having a good supply of International Stock Food Tonic on hand.

#### Hogs Grow Faster

and are ready for market weeks earlier if they get International Stock Food Tonic. It has never been equalled for promoting rapid growth, and enabling the hogs to stand the forcing process without loss of vigor or digestive powers. You will easily get an extra gain of half a pound per day per hog, if you use International Stock Food Tonic,—the quickest hog grower and fatterer in the World. It is endorsed by leading breeders.

#### Sheep Produce More Wool and Mutton.

The splendid condition in which International Stock Food Tonic keeps sheep, shows itself in two important and very gratifying ways. With increased appetites and better digestions, they grow and fatten much faster—and their wool is heavier and of better quality.

#### International Louse Killer.

Lousy Hens Lay Few Eggs.

INTERNATIONAL LOUSE KILLER is a very fine pure WHITE powder that will stay in the feathers when applied and is sure death to lice.

The annual decrease in the number of eggs laid by hens in Canada, which can be blamed solely upon lice, is enormous. Every poultry raiser who neglects to take precaution against these pests contributes to this annual loss. It is inhuman to allow poultry to undergo this incessant torture which can be prevented with but little trouble and expense. Use INTERNATIONAL LOUSE KILLER and rid your poultry of these pests. For sale in 25c and 50c packages.



# International Stock Food Company, Limited

TORONTO

ALSO MANUFACTURERS OF GROFAST CALF MEAL

CANADA

International Colic Remedy,  
International Heave Remedy,  
International Distemper Remedy,  
International Cattle Specific,

International Antiseptic Healing Powder,  
International Worm Powder,  
International Compound Absorbent,  
International Roup Remedy for Poultry,  
International Gape Remedy for Poultry.

International Gall Cure,  
Dan Patch White Liniment,  
Silver Pine Healing Oil,  
Dan Patch Hoof Ointment.