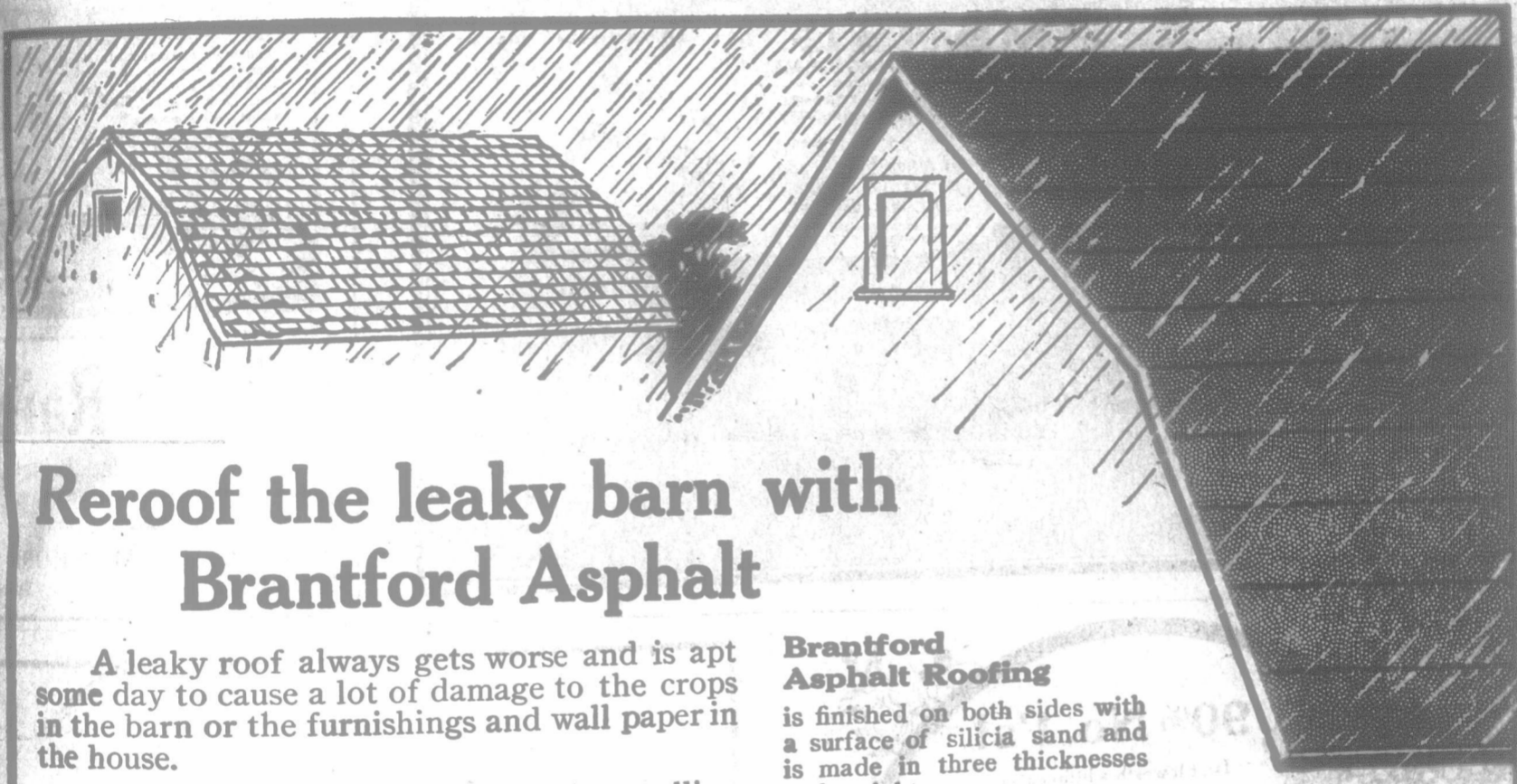




REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1916.  
LONDON, ONTARIO, MAY 27, 1920.

No. 1444



## Reroof the leaky barn with Brantford Asphalt

A leaky roof always gets worse and is apt some day to cause a lot of damage to the crops in the barn or the furnishings and wall paper in the house.

With Brantford Asphalt Roofing selling at such reasonable prices, it is true economy to roof with it. There is hardly another line of goods that has had the small advance in cost since the war that Brantford Roofing has had. By installing improved machinery and increasing the volume of our output, we have lowered our cost of production which has enabled us to keep down the price of Brantford Roofing below what might be expected in the face of the rising cost of raw material, labor and transportation.

Old wooden shingles are being replaced with Brantford Asphalt Roofing. It can be laid very rapidly, saving time, which means considerable when labor is scarce and high. It is a wonderfully fire-resistant roofing—a fire starting on a Brantford Asphalt Roof being unknown to this day. It is also very durable being completely waterproof and the asphalt blended and tempered to resist all the extremes of the Canadian climate.

# Brantford Asphalt Roofing

### Brantford Asphalt Roofing

is finished on both sides with a surface of silica sand and is made in three thicknesses and weights.

No. 1 is 60 lbs. per square. No. 2 is 70 lbs. No. 3 is 80 lbs.

### Brantford Rubber Roofing

has the same high quality asphalt saturation and coating as Brantford Asphalt Roofing but it has a smooth, rubbery surface instead of being sanded. It is also in three weights. No. 1 is 40 lbs. No. 2 is 50 lbs. No. 3 is 60 lbs.

### Leatheroid Roofing

Slightly lower quality than Brantford Rubber and used for same purposes. Has a leathery surface. Exceptionally good roofing at a low price. 35 lb., 45 lb. and 55 lb. weights.

### Standard Mohawk Roofing

While this roofing is lighter in weight than Brantford Asphalt and Brantford Rubber it is the best quality of any low price roofing on the market. It is a standard that has been tested for years and given entire satisfaction. Sanded on one side. One weight only—40 lbs.

### Climax Sheathing Paper

A tough kraft paper coated with high-grade asphalt. For use between footing and foundation of a building, between foundation and wall, between foundation exterior and the earth, below basement cement floors, underneath floors in houses, on walls before lath and plaster are put on—unequalled for damp-proofing and wind-proofing purposes.

Samples and prices mailed on request.

## Brantford Roofing Co., Limited

Head Office and Factory, Brantford, Canada  
Branches at Toronto, Montreal, Halifax



## Better BARNS at Better PRICES

Such prices as we quote on complete Barns and other farm buildings would be tempting values for ordinary buildings. But when you consider the superior kind of buildings you get from us, you will have to admit our quotations are remarkable. That's because we buy in huge quantities the materials that enter into

## PRESTON STEEL TRUSS BARN

The lumber for these Barns comes from our own timber limits and our own saw mills. We ship these Barns in sections direct from our factory to your farm; the buildings are so fabricated that they are easily and quickly put together by a small gang

of workmen—thus doing away with the necessity of boarding a small army of barn builders for the long period of time that was required before the Preston Steel Truss Barn came into use. Why not have a perfect barn—protected

by the Preston System of lightning protection and further protected by its metal roof and sides against fire from without. Why not have a barn that enables you to store crops with ease—a barn so well-planned that there's no waste space.

**THE MS AND S G LIMITED**  
**METAL SHINGLE AND SIDING COMPANY**  
 ASSOCIATED WITH THE A. B. ORMSBY CO. LIMITED  
 PRESTON - MONTREAL - TORONTO  
 WINNIPEG - SASKATOON - CALGARY

Write for our book—address  
 Head Office, Preston, Ontario.

A Preston Barn erected  
 for Mr. W. C. Scott,  
 of Limehouse, Ont.



### GRAND TRUNK RAILWAY SYSTEM

## The Double Track Route

BETWEEN MONTREAL, TORONTO, DETROIT AND CHICAGO

Unexcelled dining car service  
 Sleeping Cars on Night Trains  
 and Parlor Cars on principal Day Trains.

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

## HYLO SILO

Sweet Fresh Ensilage down to the last forkful

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

Write for prices and catalogue. AGENTS WANTED.

Gilson Mfg. Co. Ltd. 69 York St. (4) Guelph



## Steel Rails

For Reinforcing Bridges and Barn Driveways.  
 Cut any Length

JNO. J. GARTSHORE  
 58 Front Street West, Toronto

**90% No. 1's!**

Isn't it worth a little extra time and money to be sure of trees bearing like that on the left?

Trees such as that on the right, left to the mercy of insects and fungous growths, are a luxury none can afford these days.

Ensure a big and profitable yield by careful spraying with reliable and economical J. C. sprays.

ARSENATE OF LEAD  
 CAL-ARSENATE  
 POISON BORDO DUST

John Cowan Chemical Co. Limited  
 7 Dalhousie Street, Montreal

*Goes Like Sixty*

**GILSON**

**We Want to Demonstrate on Your Farm**

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

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

Gilson Mfg. Co., Limited  
 269 York St., Guelph, Ontario

*The "Last-for-Ever" Roof*

TRADE MARK

**ASBESTOSLATE**

ASBESTOS SHINGLES

MADE IN CANADA

For Particulars write to  
 The  
**Asbestos Manufacturing Company Limited**  
 Factory and General Offices: Dept. 6, Lachine, Que.

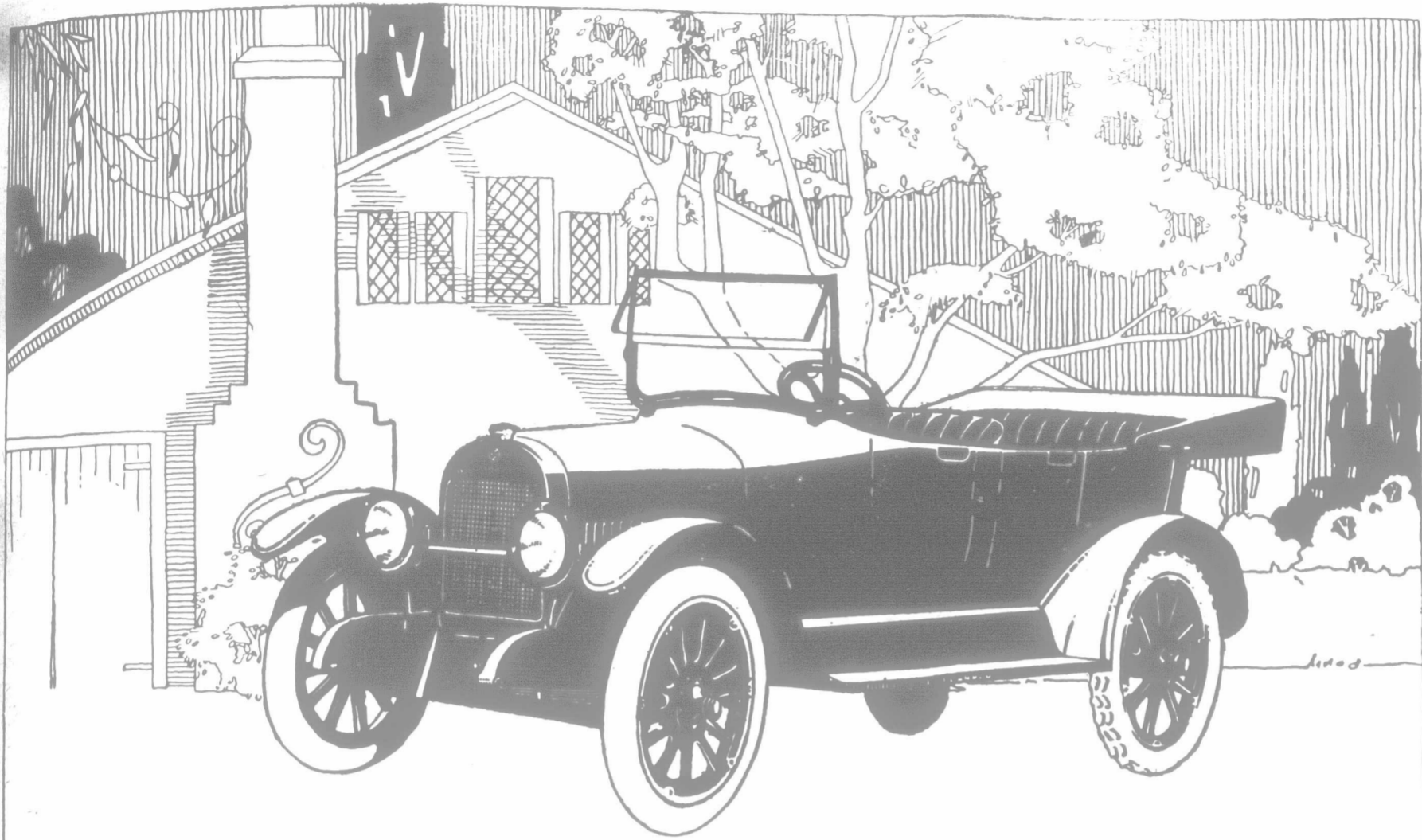


ND TRUNK RAILWAY SYSTEM  
**The Double Track Route**  
 BETWEEN MONTREAL, TORONTO, DETROIT AND CHICAGO  
 Excellent dining car service  
 Pullman Cars on Night Trains  
 Superior Cars on principal Day  
 Information from any Grand Ticket Agent or C. E. G., District Passenger Agent.

**HYLO SILO**  
 Best Fresh Ensilage  
 is the last for the  
 HYLO SILO is per-  
 air-tight. No frozen  
 ensilage around the  
 convenient and perfect  
 ens, adjustable without  
 or wrench. Made of  
 Long Leaf Yellow  
 it to last a life-time.  
 id when empty.  
 prices and catalogue.  
 ENTS WANTED.  
 Co. Ltd. 69 York St.  
 Guelph

**Steel Rails**  
 Reinforcing Bridges  
 Barn Driveways.  
 Cut any Length  
 J. GARTSHORE  
 Street West, Toronto

Roof  
**LATE**  
 DA  
 Company  
 Limited  
 hine, Que.



THE more closely you investigate every detail of construction in the Gray-Dort, the easier it is to realize why men call this "The Value Car of the Year" and why doubled production has not met the demand.

The Gray-Dort dealer will gladly demonstrate for you—the Gray-Dort 5-passenger touring car, \$1465 f.o.b. Chatham, war tax extra; the 2-passenger roadster, the same price; the Gray-Dort Special, \$150 extra on the standard; the beautiful Gray-Dort Ace, \$255 extra on the standard.

GRAY-DORT MOTORS, LIMITED - Chatham, Ontario

*Built in Canada by Skilled Canadian Workers and Canadian Capital*

**GRAY-DORT**



### Tudhope-Anderson

#### WIDE TIRE Steel Wheels

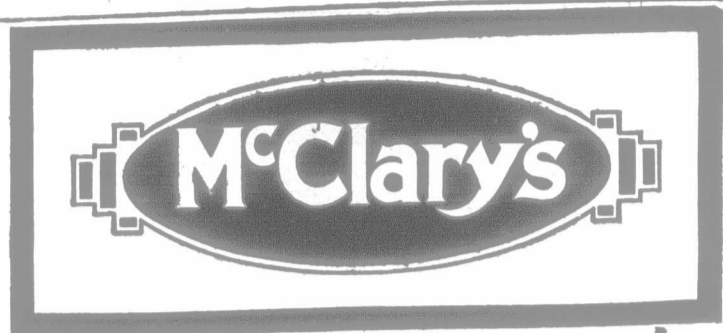
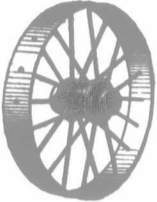
Save your fields and horses  
No farmer can afford to have his horses or fields used up by the extreme heavy draft of ordinary wheels in soft soil. Tudhope-Anderson Wide Tire Steel Wheels are a paying investment.

The heavy cast-iron two piece hub can be made to fit any skein or axle bearing—diameters, 20" to 60"; tire widths, 3" to 10".

Write us now for order-blanks and full particulars about Wide Tire Steel Wheels for work about the farm. Remember this is Made-in-Canada wheel.

We also manufacture Low Down Wide Tire Steel Wheel Trucks.

Tudhope-Anderson Co., Limited  
Orillia Ontario  
Cut out this advertisement and mail to us 48



### Make good stoves and Cooking utensils.

### Is Your Spare Time Worth Money?

how you can make money in your spare time in an easy and pleasant way.

Write to The Farmer's Advocate and Home Magazine and learn.

### Tobacco Markets.

There is much more interest than usual in the tobacco producing districts of Canada over the possibilities and limits of domestic and foreign tobacco markets, says H. A. Freeman, Tobacco Inspector. Rumors well founded and unfounded are given wide circulation. Many important facts are overlooked. In this and future articles a few of these facts will be mentioned. It is hoped that at least some will comment on these facts, and mention others. Thus much information will be produced, and the situation that confronts us will be more clearly understood.

We are growing in Canada exactly the same types and varieties of tobacco that are produced in the United States of America. Then it can readily be seen that our tobacco leaf must compete with United States leaf in the markets where these types of tobacco are in demand. America produces enormous crops of tobacco, every pound of which is carefully graded and selected. We might recognize at once that our foreign markets will be their foreign markets as well. We must compete with America in the same markets with the same type of leaf and the same grade of leaf of that type. At the present time even with an import duty of 40 cents per pound on raw leaf coming into the country we are importing more than 100 pounds for each 100 pounds of tobacco produced in Canada of exactly the same varieties and types as we are growing, when all types are considered. We are importing in kind and quantity of tobacco as mentioned, but here is the part to remember, the grades imported are equal to our best, and, in some cases, are better than we are producing now, but we can easily and profitably improve our domestic leaf a great deal. It is not a question of the variety or type of our tobacco, but a question of the grade, and in the word grade is combined quality, color, texture, size, flavor, aroma, taste, moisture, body, elasticity, burn, supply in quantity, all these and more.

How can we compete outside of our country with the very same country who sells us more than 50 per cent. of our tobacco, and who without our protective import duty might sell us practically all of our tobacco, remembering that when our tobacco starts for a foreign market it is in open competition with tobacco from every country in the world that is producing the same type for the same use? This is true in every case except one. In only one country, a country which annually imports from one hundred and fifty to two hundred million pounds of tobacco—England, Canadian tobaccos of all types, which come up to the trade and market requirements, may enter with a preference of 32 cents per pound. This preference is extended to all of the British colonies and Ireland, all other countries must pay the full duty. England has been buying all of the types of tobacco that Canada can offer for sale from other countries for some time. Then Canadian leaf will enter English markets, if at all, as something exactly the same as is now being imported and used by English manufacturers, and as something that Canada can supply to them more cheaply than anyone else on account of the 32 cents preference granted us, and the exchange situation which favors us in selling to England. Without this preference we could have little hope to find or supply a foreign market in competition with the United States. This preference only gives us the chance to enter the ranks of the contenders for markets with a fair chance of winning, if we are willing to contend hard enough.

It is a well-known fact that the English importer is the most discriminating in the world. He wants the best grade or none.

England wants large quantities of good cigar binder and cigar filler tobaccos. These must be sorted, graded, fermented, and packed in good condition. In the case of cigar fillers, they must be stemmed or stripped, that is, the centre vein or midrib removed and generally well handled. These are already being handled in Canada to meet the requirements, and large shipments are being made to England.

There is a strong demand in England for flue-cured or bright tobacco to the extent of more than sixty million pounds. It must be bright, thin, and of the best quality. It must be graded, packed and handled just as it is being graded, packed and handled in the Carolinas and Virginia.

White Burley is in demand to the

### Saw it, Nail it like other kinds of lumber

As a matter of fact Beaver Board is lumber. It is built up into large, flawless panels from fibres of the white spruce.

Beaver Board has an almost endless variety of uses about the farm.

In the farm home it repairs old cracked walls and ceilings, it builds new partitions, it turns waste space into cosy, useful rooms. It is just as useful in barn, dairy and poultry house. The farmer will find daily use for Beaver Board—so keep a stock on hand. Your nearest lumber dealer will deliver it, or you can take it out on your next trip.

You can easily identify genuine Beaver Board by the Beaver trademark printed on the back of each panel.

Our book "Beaver Board and its Uses" will give you many practical suggestions for the use of this good building material. Write for a copy to-day.

THE BEAVER COMPANY Limited

505 Beaver Road, Thorold, Ont.

Timber Operations at Fredrickhouse and Charlton, Ont. Mills and plants at Thorold and Ottawa, Ont. Distributors and Dealers Everywhere.



# BEAVER BOARD

You can't tell Beaver Board results until you see the Beaver trademark on the back of the board you buy.



FOR BETTER WALLS & CEILINGS MADE IN CANADA



**Markets.**

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 tobacco markets.  
 Tobacco Inspector,  
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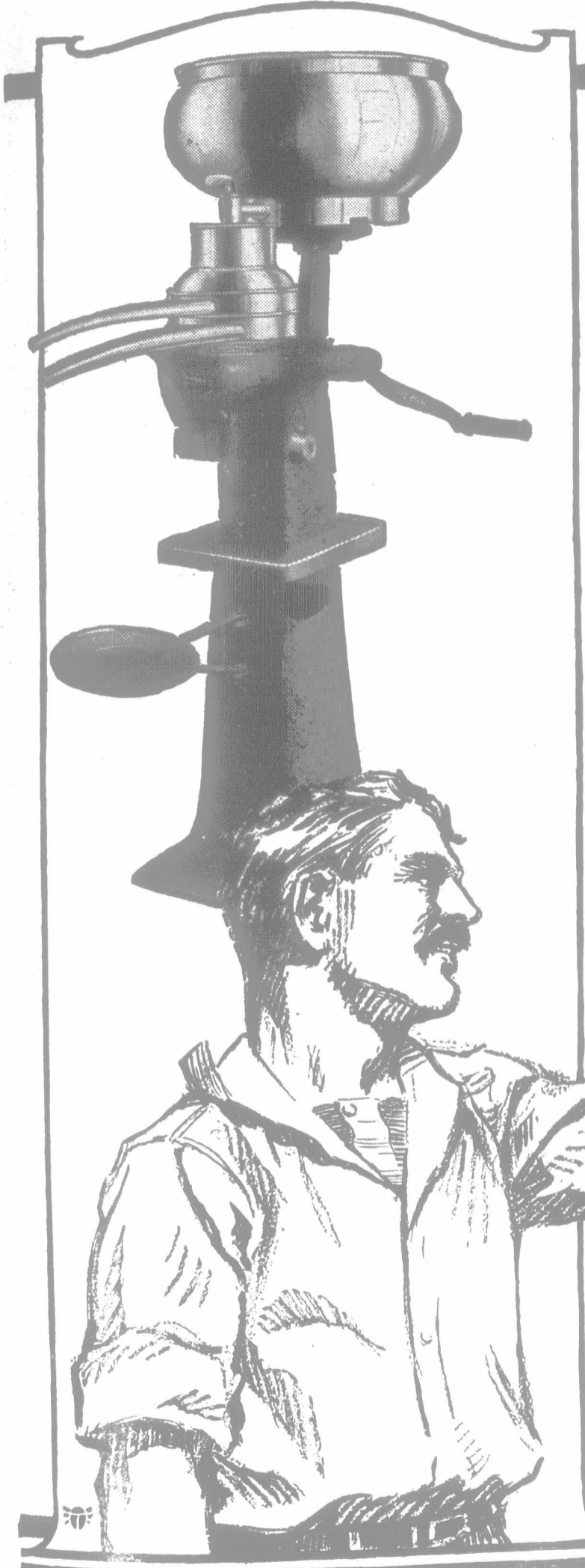
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# EMPIRE-BALTIC

## The Separator with the MILLION DOLLAR BOWL



**H**ERE'S an announcement of great importance to YOU—to every farmer owning cows; for it brings to Canadian Dairymen the latest development in Cream Separator Construction—the EMPIRE-BALTIC Cream Separator, with the MILLION DOLLAR BOWL.

Seems like a lot of money for a manufacturer to spend on a Separator Bowl, doesn't it? But when you consider what it means to cow-owners, a million dollars is only "a drop in the bucket" to what the EMPIRE Million Dollar Bowl will save each year for the Farmers of Canada and the United States.

For this wonderful bowl, the product of years of study and experiment by a score of the foremost separator engineers, sets a new standard of separator performance:

It is self-centering and self-balancing; practically no vibration; and so does not agitate the milk; it skims clean all the time; it is easy to turn, frictionless; once adjusted it is adjusted for life; its discs are interchangeable—a great convenience in cleaning and assembling. It is the last word in Bowl construction—Simple, efficient, convenient and practically everlasting.

Compare the Empire-Baltic with any other separator! And remember, in making the comparison, that your butter profits are made or lost in the bowl.

### Investigate the Bowl

You'll find other Separators as good looking as the Empire-Baltic—no manufacturer has a corner on good looks. You'll find other Separators made, like the Empire-Baltic, out of the best materials obtainable—anyone can buy the best grades of materials. But you'll find only one Separator with the MILLION DOLLAR BOWL—an exclusive EMPIRE-BALTIC feature—fully covered by basic patents.

Space prohibits our telling you here all of the superior Empire-Baltic Features, but the Million Dollar Bowl alone is important enough to impel you to see the nearest Empire Dealer at once—learn all about the Empire Baltic. Or send at once for catalog No. 13



This trade-mark is found on the Supreme Separator. It is displayed by the Best Separator Dealers throughout the country. It is the sign of Highest Quality in materials, workmanship and service. It is the "Family Coat of Arms" of the leading line of Dairy Machinery —EMPIRE.

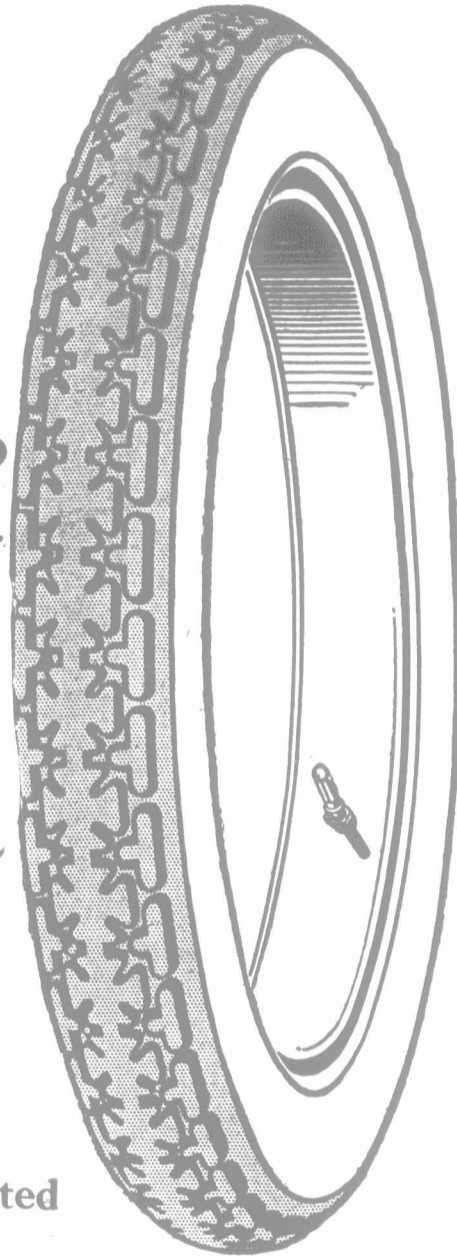
**The Empire Cream Separator Co., of Canada, Ltd.**  
 Manufacturers of Empire Milkers and Gasoline Engines TORONTO and MONTREAL



**N**OT by secret formulæ, but by selected, tested materials, and better workmanship, have "Gutta Percha" Tires won the phrase—"The Tires That Give Satisfaction." The motorist, who has his car equipped with "Gutta Percha" Tires, travels with a light heart—he knows his tires will "stand up." Motoring is an exhilarating pleasure when the mind is free from the thought of tire trouble.

# "GUTTA PERCHA" TIRES

*"The Tires That Give Satisfaction"*



(CROSS TREAD)

**Gutta Percha & Rubber, Limited**  
 Head Offices and Factory, Toronto  
 Branches in all leading Cities of the Dominion

extent of several million pounds in England, but here again standard grades are wanted, just as can be had on the White Burley markets of Kentucky. England has never bought White Burley in the United States very heavily, and might not be expected to buy of our best, well graded, more than a comparatively few million pounds unless a very big re-organization and change in the trade should occur.

In the past England has bought very heavily of the dark fire-cured, snuff or dark shipping tobacco, both fire-cured and air-cured. This type has been grown successfully in small quantity for several years in the Blenheim district of Ontario. It is grown very extensively in Western Kentucky, Tennessee and Virginia. On account of the price and exchange rate, great quantities of this tobacco remain in the hands of the growers in Kentucky, Tennessee and Virginia. The possibility of substituting Canadian White Burley for the air-cured heavy shipping tobacco of Tennessee and Kentucky and taking advantage of the 32 cents preference and the difference in exchange to do it is now being investigated.

Summing up it can be seen that there is a lot of work ahead. The task is by no means impossible. Once done sufficiently well to get our tobaccos on the English market we shall discover that another big thing has been done, that of improving our domestic tobaccos by better methods of growing, handling and grading, to such an extent that our home markets and manufacturers can absorb twice as much of it as they are taking today. The too high per cent. of low-grade to high-grade tobacco that is to be found in many crops, as everyone knows, can be eliminated. That conditions are such as they are in our growing, handling and marketing of tobacco to-day is no one man's fault, and no one man can correct them, but working unitedly and intelligently the difficulties mentioned can be quickly overcome. The situation calls for united honesty, fairness and action from every one. The next article will be on "Grading Tobacco."—H. A. Freeman, Tobacco Inspector.

### Cutworm Control Measures.

(Experimental Farms Note.)

Careful study of tobacco insect pests and methods of eradication has been made by H. A. Freeman, Tobacco Inspector. Some knowledge of the life history of these insects is necessary to properly cope with them. Frequently they can be best attacked when in that stage of their development in which they do no damage to growing crops. One of the simplest and easiest methods of attacking these insects is through fall plowing of the tobacco field, which destroys all vegetation on which the insects may feed, and also exposes these insects in their winter stages to alternate freezing and thawing.

During the crop growing season the most certain and practical method of control is through destruction of the insects by poisoning. There are three ways if using poisons against cutworms: 1. Spraying the tobacco plant; 2. Spraying trap crops, and 3. Using poisoned bait. Poisoned bait is most generally used. In using this material it is advisable to keep the field as clean as possible of weeds two or three weeks preceding transplanting time in order to reduce the food supply of the worms and render them hungry. A couple of days previous to transplanting spray a small patch of clover with Paris green at the rate of one ounce to six gallons of water. Cut the clover in small pieces and scatter in small handfuls about the fields, preferably on a cloudy day and in the evening when cutworms are out for feed, and the clover will not dry out too rapidly. If these poison baits are not more than 6 to 8 feet apart the worms will have no trouble in finding them. This treatment should be repeated once or twice.

Instead of poisoned clover bait poisoned bran mash may be used. This is made by mixing one pound of dry Paris green with 40 pounds of bran. To this add a little sweetened water or cheap syrup, stirring it thoroughly until moistened uniformly. This is scattered about the field in the same way as the clover bait, and seems to be more attractive to the worms even than clover. All poultry should be excluded from the area for sometime, or at least until the rain has washed the poison away.—H. A. Freeman, Tobacco Specialist.

## Cream Wanted

Ship your cream to us. We pay all express charges. We supply cans. We remit daily. We guarantee highest market price.

**ONTARIO CREAMERIES Limited**  
 LONDON ONTARIO



## THIS SPRING

Arrange your Life Insurance. Every year you delay means added cost. Every year means the added possibility of being unable to get Insurance. It is well to remember that 87% of all applicants are refused for ill-health and other considerations.

Obtain particulars of the Great-West Life Policies. They are well worth investigating. And so many people have thought them well worth applying for that the Company has over \$212,000,000 of Insurance in force.

Your request for rates will imply no obligation to insure. The Company is pleased to give the fullest information and advice by mail, and will, if desired, send specimen Policies.

**THE GREAT-WEST LIFE ASSURANCE COMPANY**  
 Dept. 1027  
 Head Office: WINNIPEG

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### The "Touch-and-go Crop"

That's how a successful farmer described his hay crop. He meant it had to be cut just when ready—cured just right—and brought in just on time. He used

## FROST & WOOD Hay-making Machines

Too many farmers lose a lot of hay, or what they get has lost a lot of succulence through old style, worn out Rakes, Mowers, etc.

Why not get a Frost & Wood Automatic Dump Rake this year? A touch of your foot on the pedal and the teeth are automatically lifted and load is dumped. Teeth are highest quality tempered steel spring. Frame is high quality carbon angle steel, strongly braced and with high steel wheels. It's a quick working, high grade, light draft machine that you'll enjoy using for many years to come.

The safe way to buy is to see—our big line at our nearest Agent's and talk the matter over with him. Write for our Hay-making Folder describing our Rakes, Side Delivers, Rakes, Tedders, Loaders, etc.

**The Frost & Wood Co., Limited**  
 Montreal SMITHS FALLS, ONT. St. John, N.B.  
 Sold in Western Ontario and Western Canada by  
**COCKSHUTT PLOW CO., LIMITED, BRANTFORD, ONT.**

### ALL FERTILIZERS HAVE THEIR MERITS

## But SYDNEY BASIC SLAG

is in a class by itself. ASK THE MAN WHO HAS USED IT.

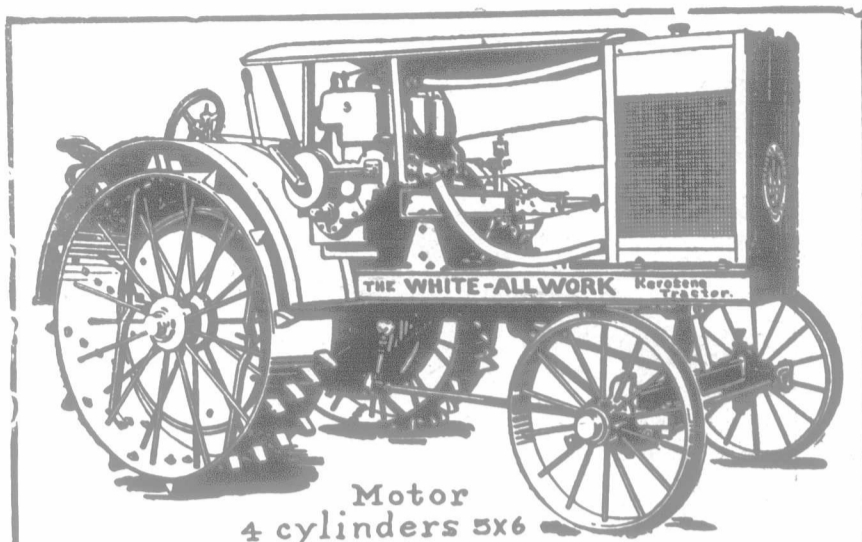
Regardless of the fact that you may have sufficient barnyard manure for your Fall Wheat you would find it highly profitable to use Sydney Basic Slag. It would greatly improve both quality and yield.

### IF IN DOUBT ABOUT THIS WHY NOT TAKE ADVANTAGE OF OUR SPECIAL OFFER

We want to get into touch with reliable farmers who can handle a carload in their district provided they can first be satisfied it would be a good thing for the community. We will gladly pay all your travelling expenses to go and view fields of wheat where Sydney Basic Slag was used. After you have seen the results and talked with the growers you are then at perfect liberty to make your own decision. If you decide to let the matter drop you will be under no obligation whatever. Surely you must admit this offer is most generous and fair. Let us hear from you at once so matters can be arranged in good time.

We have some interesting literature which is free.

**THE CROSS FERTILIZER COMPANY, Limited**  
 SYDNEY, - - NOVA SCOTIA  
 Address all enquiries to our General Sales Agent  
**A. L. SMITH, - 220 Alfred Street, - KINGSTON, ONT.**  
 (Please mention this paper when writing)



## High Power—Light Weight

You can put a White-Allwork on wet land or use it for seeding and harrowing. The White-Allwork weighs only 4800 lbs., yet it has 3000 lbs. drawbar pull on high gear, or 4000 lbs. on low gear. It has a 4-cylinder (5 x 6 inches) motor, the largest engine on any 3-plow tractor. It is compact, sturdy, and easily handled—turns inside of 12 feet radius. You can use it on rolling land and work in close to fences.

The engine is set cross-wise on the frame, doing away with bevel-gears and giving a belt pulley on direct line with the crank shaft. All gears are self-oiling, and well protected from dust.

The White-Allwork is a worthy addition to "The First Quality Line."

You know best what a White-Allwork will save you.

You know what horse work or other tractors are costing. Let us tell you what it costs to use the White-Allwork on every power job on the farm. Then decide for yourself whether this practical tractor will save you money or not.

Write for full information

**The Geo. White & Sons Co., Ltd.,**  
 Moose Jaw, Sask. LONDON, ONT. Brandon, Man.  
**"THE FIRST QUALITY LINE"**  
 Steam Tractors Threshers Gas Tractors

# The White-Allwork Kerosene Tractor

Harrow, March 9th.  
 Metal Shingle & Siding Co., Preston, Ont.

Dear Sirs:  
 I expect to put up a building, and I want to put a metal roof on it. I have got buildings covered with four different kinds of metal roofing. Two of the buildings are covered with your make of shingles, and I consider them to be the best roofs of any of them.  
 Yours truly,  
 HARVEY S. SMITH.

## "Best of Any of Them"

This letter is eloquent of the superior satisfaction to be obtained from the use of

# PRESTON SAFE LOCK SHINGLES

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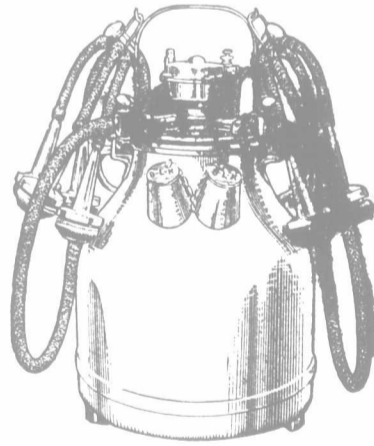
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LV.

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The tax on the from the ultimate method.

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# The Farmer's Advocate

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## Home Magazine

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ESTABLISHED  
1866

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LV.

LONDON, ONTARIO, MAY 27, 1920.

1444

### EDITORIAL.

Get rid of the old birds in the flock when they stop laying. Young ones will be more profitable from that on.

The tax on turn-over is simply a method of taking from the ultimate consumer by the so-called painless method.

Don't allow land to remain idle. It is not yet too late for corn and there are still crops that can be successfully seeded at this time.

It will pay to go a good way to find a suitable stallion to which the mares may be bred with some guarantee that the offspring will have merit.

With a national debt of over two billions of dollars every man, woman and child in Canada is in debt to the extent of approximately \$225.

The spirit of unity and co-operation which existed in war time is gradually disappearing. That spirit is a valuable asset and should be kept alive.

Take all reasonable precautions against joint-ill when the mare is foaling. One cannot be too careful and persevering in preventing this scourge.

Milk producers in some districts would be glad to have their cheese factories back. It was a sad mistake in allowing so many good cheese factories to disappear.

Scrub sires and tuberculosis constitute a dual menace to the live-stock industry. The first is easily gotten rid of and it ought to be the aim of every breeder to eradicate the latter.

The Budget brings home the fact with startling emphasis that thrift and honest toil alone can bring us through the era on which we are now embarked. Agitation, dissatisfaction and under-production are going to make hard sledding for us all.

F. L. Davis, member of the House of Commons for Neepawa, has suggested a non-partisan committee of the House of Commons (the majority to be formed of members of the minority with an ex-Finance Minister as chairman) to consider the estimates before they are brought down in the House. At present, members have very little opportunity of getting information regarding various items in the estimates, except that of a very general character from the different ministers presenting them. The committee suggested would have the power to call in the executive chiefs of the various departments of Government, and get detailed information. In view of the great need for retrenchment this suggestion has much to commend it.

Canada exported goods amounting to \$1,246,341,600 for the twelve months ending February, 1920, as compared with exports of \$1,216,316,432 for the preceding year. Of our exports for the past year the following principal agricultural items were included: Live animals, \$52,220,850; bacon and hams, \$38,241,183; beef, \$74,432,363; canned meats, \$1,284,369; pork, \$1,728,388; other meats, \$3,838,213; wheat, \$181,750,202; wheat flour, \$98,278,003; oats, \$8,556,442; other grain, \$24,829,836; butter, \$8,746,597; cheese, \$35,646,442; milk and cream, \$10,125,462; flax seed, \$5,491,504; and vegetables, \$10,398,305. These items make a total of \$555,568,159. Of these items, live stock provides over \$222,000,000 aside from hides, skins and leather, which amount to \$37,000,000.

### Let us Keep Our Importations Clean.

A very important and forward step has been taken in the control and reduction of bovine tuberculosis. The Dominion Department of Agriculture, working in co-operation with representatives of the producers and packers, are endeavoring to evolve a scheme of disease-reduction that will do our live-stock industry good. However, tuberculosis should be attacked wherever it reveals itself, and a prominent Quebec breeder has pointed out, in the Live-Stock Department of this issue, a weakness in our import regulations that demands attention. There is no use trying to clean up tuberculosis in Canada while we keep on importing it from Great Britain, and by simply marking a "T" in the ear of a cattle beast we do not render it any less a menace as a carrier and spreader of disease. It will not prevent contagion if we punch the whole word "Tuberculosis" in both ears; we must keep tuberculous cattle out altogether.

Other countries, we understand, are more progressive in their antagonism to imported tuberculous stuff, and we interpret the United States regulations to prevent reactors being forwarded to their destination in that country. We have gone so far as to prohibit the importation of reactors from the United States; why should we not do the same with those from Britain?

In the issue of February 5 we took occasion to make certain recommendations regarding control, and action is already being taken along lines suggested there. At that time we urged Dominion Government assistance to importers on the other side, thus enabling them to ship only clean cattle to Canada. We are confident that something along this line will eventually be evolved and we would again suggest that the Department confer with breeders and importers with the object of constructing a policy that will encourage the importation of clean cattle for the improvement of our live-stock industry.

### A Sane Policy for the Agricultural Representatives.

A correspondent whose article appears in the Farm Department of this issue is asking for an expression of public opinion concerning the policy which should be laid down for the Agricultural Representatives in the Province of Ontario. There is a suggestion in this communication that the Representatives be expected to take a more active part in all rural movements, but it would be unfortunate indeed if a new commandment were given unto them which in anyway annulled the orders by which they have always been guided, namely, that where politics are concerned they are to take an absolutely neutral stand. The Agricultural Representatives, like the Department of Agriculture of which they are a part, are there to serve all the people. They are public servants and they are paid out of the public funds. If townspeople desire agricultural information the Representatives are duty-bound to give it, just the same as is the Department. In the execution of their duties they are required to know no class distinction or religious differences; in private life they are entitled to the full privileges of citizenship. The Agricultural Representatives were, of course, primarily placed in the various counties to serve farmers and bring to them the latest and best that agricultural colleges or departments of agriculture could provide. To this end they found organization essential and they became organizers in the various communities where by getting farmers together they accomplished a hundred fold more than would have been possible by working with individuals; and more than that, they laid the ground work for the great organization movement which later swept the Province. In fact, some of the best and staunchest U. F. O. locals were organized by Agricultural Repre-

sentatives who saw the need of farmers' clubs and assisted them into existence. Even when there was open hostility between the late administration and the U. F. O., the Representatives remained neutral as a group, and in many cases even advised the affiliation of the farmers' clubs they had formed with the United Farmers of Ontario for business purposes. The representatives can still render valuable assistance to the United Farmers' Clubs, and they ought to do so where agricultural advancement is the object. However, the Hon. Manning W. Doherty cannot do better than instruct the Agricultural Representatives to use their own discretion as in the past, assist farmers all they can, and keep out of politics.

### Using the Government.

"The Government should do it," is an expression that is altogether too common in this country. In the past, our Governments have tried to curry public favor by doing things for the individual voter that the individual voter ought to do himself. The result of this paternalism is that this country is cursed with an army of disgruntled people who are forever asking their Government to do chores for them. The man who is continually asking the Government to help him with his chores is a poor citizen; he lacks the independence of spirit that is characteristic of all solid citizens. Incidentally, he is the kind of citizen who is forever condemning Governments. He is ready, at all times, to put forth arguments which prove, to his own satisfaction at least, that Governments are wholly incompetent.

True, our Governments are not as efficient as they might be. But they are not altogether to blame, for as soon as they are elected they are pestered and embarrassed by political friends and enemies who regard Governments as mere agencies for distributing favors of one kind or another. We will get good government in this country when the people demand it—and not a day sooner. And that day will not arrive until more people are saying: "Let us help the Government." "The Government should do it," is a phrase that is common in all badly-governed countries. "Let us do it ourselves," is the unspoken slogan of all self-reliant, industrious and stout-hearted peoples.

### A Half-Holiday for Farmers.

The question of a half-holiday for farmers has been aired considerably of late, and one or two clubs have gone so far as to endorse it in their districts. It will, no doubt, receive consideration elsewhere unless the rush of work dispels the idea and banishes it for another season. In principle the half-holiday is as sound for the farmer as for the townsman, but in practice it does not work out. Imagine the pleasure a farmer would get out of a half-holiday while his hay was drying up in the fields, while his grain was ripe and calling for the binder, while the corn needed cultivating and the weeds were smothering out the hoed crop. Only by a most advanced and modern method of reasoning could the present-day farmer make himself believe that he was actually enjoying the time off. Farmers and their families are entitled to recreation and rest, but it would be far better to take a week in an off season, if such there be, than one day when the work is particularly pressing. There are so many half-days, and whole days too, that one cannot work in the fields on account of rain and other causes that a set half-day seems out of place in agriculture.

The argument has been advanced that if town workers can labor short hours and enjoy their holidays, thereby making the work go round and keeping wages high, farmers can likewise work less, decrease production and keep prices up. This is false doctrine, and while we condemn it in others we have no right to subscribe



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THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

Published weekly by THE WILLIAM WELD COMPANY (Limited).

JOHN WELD, Manager.

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

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to it ourselves. More than that, it is bad economics from the farmer's standpoint, for the world's markets set the price on our wheat, our cattle, our hogs, and most everything we have to sell. The manufacturer bases the price for his commodities on actual costs, but the farmer's interests are not so well safeguarded. The price we get for farm commodities is decided not by what we produce alone, but by a general summing up of what all the producing countries of the earth have to offer from their surplus stores.

In some communities baseball clubs have been formed, leagues have been organized, and a series of games provided for. This is to be highly commended. It gives the young folk an opportunity to engage in wholesome, manly sport, while old and young look on and enjoy it. Where this has been the custom, the whole community would turn out to see the game and support the boys, without much loss of time. There should be sport and games organized in every community, but supporting them is vastly different from a set half-holiday with nothing definite in view.

## Charity Begins at Home.

BY SANDY FRASER.

One o' the proverbs that I have heard noo an' again, ever since I was a youngster, is the one that says that "Charity begins at home." It's the handiest proverb for some people that ever was written. It lets them out from under a lot o' obligations and saves them considerable money in the course o' a life-time. When the meenister asks them for a contribution for Foreign Missions they want to ken what's the matter wi' attendin' ta' Home Missions first. And when the collection is being taken up for Home Missions they gie it as their opinion that the needs o' their ain particular church ought to be looked after, since the preacher's salary is behind, and so on. Then when they are asked to make up this shortage and help their church out o' a hole, they remind themselves o' the fact that "charity begins at home," and their conscience permits them to put that five-dollar bill awa' in the box in the sideboard drawer, instead o' into the empty pocket o' their meenister. It's human nature, I suppose, or one phase o' it, anyway. But it's dat sayin' about charity and the place where it is supposed to begin, that backs them up

in their policy o' lookin' oot for number one and lettin' the rest o' the world shift for themselves, as best they can.

We've had an example o' this tendency not sae far frae hame, within the last couple or three weeks. I'm referrin' ta' the salary boost that was proposed for oor members o' the Legislature at Toronto. Whae'er chap sprung that scheme was a believer in the auld proverb, 'I'm thinkin'.' Na doot it was at his mither's knee that he learned that "charity begins at home." Anyway there is little doot but that he thought he would meet na opposition in gettin' a Bill o' that nature through the Legislature. But for once in a thousand years condections weren't favorable for the law-making salary-booster. He'd forgotten that a bunch o' kind o' half-decent farmers had managed to get control o' the Government in this Province last fall, and that they had a leader chap by the name o' Drury. It was this wee fact that upset a' his calculations.

When the Bill was first brought up the press o' the auld political parties juist took it for granted that it wad go through. No ither outcome had ever been heard o'. Here's a wee bit o' an editorial frae one o' these papers: "Those persons in Ontario who talked and hoped for reform and economy under an agricultural administration are being sadly disappointed, for the calls on the treasury are loud and insistent. Premier Drury in his first enthusiasm, stated that the Prime Minister's salary was too high by \$3,000, for which remark he was praised on the one hand and laughed at on the other. Now there is a reaction from such a lofty plane, on the part of the legislators, for the whips of the three parties are urging that the sessional allowance be raised from \$1,400 to \$2,500. With such unanimous support the raise should come, and then if the two thousand five hundred is not sufficient a double session might be held. Legislators are able to look out for themselves as well as their constituencies."

The editor who wrote that last sentence was pretty sure that the auld unwritten law o' "every man for himself" was still in force. He will be sittin' up, these days, an' rubbin' his eyes and thinkin', maybe, it was all a dream.

But the fact that these salary-boosters failed in their first stempt won't hinder them in making a second. Watch out for them next session. They're like an auld French-Canadian representative o' Prescott County doon here, who was elected ta' the House o' Commons at Ottawa a guid many years back. One o' his opponents asked him, the day after the election, what he was "going to Ottawa for, anyway?" "I'm goin'," he replied, "for my t'ousand dollar."

The idea o' workin' for the interests o' his county or country had never bothered him no mair than it has some o' those that we have been sending to Ottawa an' Toronto since. But he was less afraid o' comin' oot wi' the truth than they are noo-a-days. Like the chap that was asked what he did durin' the Great War. "Weel", he replied, "I did mair than a guid many ither men I was acquainted wi', I lived through it."

But, as I was sayin', there's a bunch o' these fellows that are makin' themselves comfortable in Queen's Park that really think they are no' gettin' pay enough for takin' a couple or three months holiday. For it's naething less or more. All the majority o' them ever do is to vote. And they don't even have to think about how to do that. They appoint a man, at the beginnin' o' the session, to dae their thinkin' for them.

I'm no' against payin' the Premier an' the ither Cabinet Ministers guid fair wages. They're on the job maist o' the time and, na doot, earn their money. But gin the rest o' the bunch dinna like their job an' the wages that gae wi' it, why don't they gae oot on strike like men an' let us elect itherers to tak' their places. They knew what the pay was when they were tryin' their best to get us to send them up to Toronto last fall and gin they don't like it noo I guess we all ken where there's men waitin' to step intae their shoes.

But they've certainly got their nerve along wi' them when they propose to hand over to themselves a greater proportion o' the taxes they have levied on the rest o' us. And that wi'oot sae much as a "by your leave." I dinna ken anither job on the face o' the earth where the servants can raise their ain wages until they hae at least informed their master o' their intentions and given them some chance to say whether they like the proposition or not. I'm thinkin' better than ever o' Premier Drury for not lettin' these chaps get their fingers intae the provincial money-box. Let him stick ta' that policy and a guid many o' us will be beginnin' ta' think that, whether the farmers ken little or much, there's no' that slow when it comes ta' pickin' a Premier.

We've had a guid many sermons on the virtues o' economy from oor different Governments in the course of the past few years and it's a richt too, gin they set us the example as weel. But when a mon starts talkin' ta' me about the necessity o' workin' harder an' exercisin' greater economy, and at the same time tries ta' get his hand intae my pocket to relieve me o' the results of the habits o' economy that I already possess, I'm thinkin' it shouldna be oot o' the way to come ta' some sort o' an undertakin' wi' him sae that he might be brought to see the error o' his ways. Inconsistency is anither o' them lang words, but gin the meaning o' it were made clear ta' some o' these chaps they wad be surprisid how weel it fitted their case.

Pastures have been very backward this spring and live stock have kept them down. Made ample provision for the summer and autumn months when lean pastures may again be expected.

## Nature's Diary.

BY A. BROOKER KLUGH, M.A.

The ferns are now uncoiling their feathery fronds and in wood and swamp these half-uncoiled fronds stand like croziers. All the true ferns, that is the species of the family Polypodiaceae, are alike in this respect, that their leaves are coiled in the bud and "unwind" in unfolding. In some cases these new fronds are produced from a crown which still bears evergreen leaves of last year's growth, in other cases all the fronds are produced from year to year, and only the crown or the rootstock persists.

The manner in which ferns reproduce was a mystery for ages. It was thought that they must produce seeds like flowering plants, but as nobody had ever detected either flowers or seed it was supposed that the seed was invisible. Since this was thought to be the case it was imagined that the possession of this seed would confer the gift of invisibility, and Shakespeare is only reflecting



Fig. 1—Croziers of the Ostrich Fern.

this common belief of his time when he says, "We have the receipt of fern seed; we walk invisible." It was not until 1648 that the sporangia were noticed and the spores themselves were not detected until 1669, while it was not until 1808 that the full life-history of a fern was worked out.

The life-cycle of a fern, which may be followed by anyone with the aid of a hand-lens, is as follows:—

On the back of the frond in most species, or in groups on special fronds in such species as the Ostrich Fern, Sensitive Fern and the Cinnamon and Royal Ferns, are little groups of spore-cases. These groups are known as sori or fruit-dots. Figure 2 shows a section through a sorus, and Figure 3 shows one of the spore-cases or sporangia. In most ferns the sori have a covering, called the indusium, and the shape of the sorus, and consequently of the indusium, varies greatly in the different species. In the Wood Ferns (Aspidium) it is kidney-shaped, in the Spleen-worts it is long and either straight or curved, in the Bracken they form a raised line round the margin of the frond, and so on.

When the spores are mature the sporangium ruptures, at the point shown by the break in Figure 3, half of the sporangium bends slowly backwards and then flips suddenly forwards, scattering the spores.

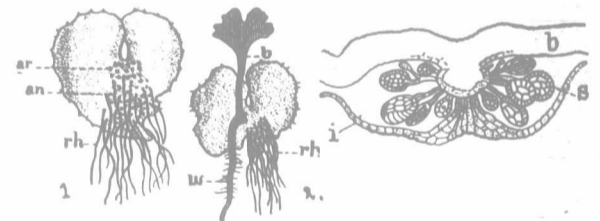


Fig. 4—Prothallia of a Fern. Fig. 2—Sorus, or Fruit Dot.

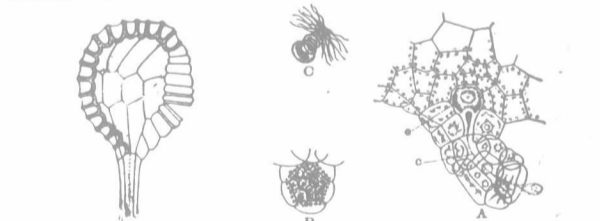


Fig. 3—A Sporangium. Showing point of rupture, much enlarged. Fig. 5—A Archegonium. With egg and canal.

When a spore germinates it gives rise to a small, flat, thin, green, heart-shaped body known as the prothallium. These prothallia may be found in large numbers under ferns in midsummer, the best place to look for them being on the surface of moist, rotten logs, as on account of their minute size they are difficult to detect on the soil. The prothallium is attached to its substratum by hair-like rhizoids, by means of which it obtains the water necessary for its growth. At its pointed end it bears the male organs, known as antheridia, and at the notched end the female organs, called archegonia. A prothallium with these organs is shown at 1 in Figure 4. The male organs contain little ciliated bodies termed antherozoids, which enter the canal of the archegonium and fertilize the egg at the bottom of this canal. Figure 5 shows these structures under high magnification. From this fertilized egg the young fern plant develops, the little frond coming up at the notched end of the prothallium as shown at 2 in Figure 4.

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## THE HORSE.

### Sterility in Mares.

Sterility, either temporary or permanent, is not uncommon in mares. It may depend upon physical or organic causes, and may cause permanent barrenness. Of course, hermaphrodites will not reproduce, and of course, hybrids seldom do; but in this article we refer to mares that are apparently normal and healthy. Mares that have not been bred until well advanced in years, and then retired to the stud frequently prove infertile, or mares that have been bred when young, and then allowed to reach an advanced age before being bred then, will often fail to reproduce. The infertile mares in these cases is probably due to the genital organs having lost their power from prolonged want of function. Nothing can be done to restore the activity of the organs. Change of climate, in many cases, has a temporary influence on fecundity; and in some cases a permanent influence when the mare becomes acclimatized, in a few months or a year. Poor hygiene also may cause sterility, but this can usually be remedied by changing to favorable conditions. Under-fed or over-fed mares do not breed with the same regularity as those in moderate conditions. This is especially the case with very fat mares. The means of removing these causes of sterility are obvious. Excitable or vicious mares do not breed with the same regularity as those of a quiet, gentle disposition. It is claimed by some that, with mares accustomed to work, active exertion, even sufficient to produce fatigue, before being bred, is favorable to conception. The Arab used to gallop his mare for a long distance, then breed her, and allow her to rest for several hours. Diseases or alterations of the generative organs, as the ovaries, fallopian tubes, uterus or vagina, often prevent conception. When such diseases become chronic, they usually cause permanent sterility, although they may not apparently interfere with the mare's comfort or general usefulness. In fact, such diseases are often present and the only circumstances that lead to the suspicion of their presence is the animal's failure to conceive. Irregular oestrus, occurring either too frequently, or at too long or irregular intervals, indicate disease of the ovaries. In some cases of diseased ovaries the animal shows prolonged or continuous oestrus. Such a female is called a nymphomaniac; but diseases of the other organs of generation, and in some cases even of the ovaries, sufficient to prevent conception, may be present and, at the same time, the periods of oestrus appear at irregular intervals, and nothing abnormal can be detected, except a failure to conceive. It is seldom that treatment for suspected disease, as above, is successful.

Doubtless a somewhat common cause of sterility, especially in a nervous mare, is a spasmodic contraction of the passage through the neck of the womb (called the os uteri) during the act of copulation. This, of course, prevents the entrance of the semen into the womb. Mares in which sterility is due to this cause may be artificially impregnated. Artificial impregnation can be performed in different ways. Probably the most popular method is as follows: A rubber capsule, and a syringe especially designed for the purpose, is purchased from dealers in veterinary instruments. The syringe is immersed in a warm, sterilized solution, as a two-percent solution of carbolic acid in warm water, kept at a temperature of 100 degrees Fahrenheit. The capsule is sterilized in a similar solution and placed over the head of the stallion's penis, and the act of copulation then performed. When the act is completed, the capsule containing the semen is removed, placed in the solution in order to retain the required temperature. A quantity of the semen is drawn into the syringe and injected into the uterus. The operator, having disinfected his hand and arm, introduces his hand into the vagina, directs the nozzle of the syringe through the os uteri into the uterus and then shoves the piston. It is possible to impregnate several mares with the result of one act of copulation, if the mares are in oestrus. Probably the most common cause of sterility is a chronic closure of the os uteri. In all cases where mares repeatedly fail to conceive, it is wise to examine the os. This is done by inserting the oiled and sterilized hand into the vagina until the fingers reach the os. In normal cases the finger can be readily passed through the os into the womb, but where there is a chronic closure, the opening must be forcibly dilated by a rotary motion of the finger. In some cases the finger has not sufficient power, and an instrument especially designed for the purpose must be used. There are cases in which there is a tough, fibrous

growth surrounding the os, in which cases an entrance cannot be made without cutting. In such cases it is wise to allow the mare to remain barren. After the os has been dilated, as described, the mare should be allowed to stand for a couple of hours and then bred.

It is claimed that a common cause of sterility is an acid condition of the vagina and uterus, and what is known as the "yeast treatment" is often successful. This consists in adding to an ordinary yeast cake, sufficient water to moisten, and allowing it to stand for about twelve hours in a moderate temperature. Then add, with brisk stirring, a pint of warm recently-boiled water, and allow this to stand ten or twelve hours. It is now ready for use. It is heated to about 100 degrees Fahrenheit, and with a sterilized syringe injected into the vagina and a little into the uterus. The mare should be bred the next day. Unfortunately, there are many obscure and unremovable causes of sterility in females. When the general appearance of an animal is healthy, and a manual examination of the organs reveals a normal condition, and, at the same time, repeated attempts fail to cause conception, we are generally justified in assuming that there is some chronic disease of the generative organs that cannot be corrected. WHIP.

### LIVE STOCK.

Quality is important in feeding steers as well as in pedigreed cattle.

Pigs need more water during the summer than when the weather is cold.

Those crippled pigs will be helped by being turned out of doors. The fresh soil and warm sun have healing qualities.

Those fences turned over by the wind storm last fall have increased the spring's work on many farms. All fences should be in repair before stock are turned out. Once they break through it takes a particularly good fence to hold them.

The stockman with a quantity of skim-milk available is in a better position to make economical gains with his hogs than the man who depends on grain and green feed alone. Tankage and blood meal are substitutes for skim-milk.

Do not seize the sheep by the wool when catching it. The wool on the body of the sheep stands in the same relation to its body as the hair does to your head. Think and be gentle. Catch the sheep either by the jaw or the flank. If you wish to catch a sheep that is moving away from you, step quickly up to it and catch the flank. In this manner you will not have any difficulty in holding it while you reach with the other hand and catch it under the jaw. When the animal is moving toward you, catch it by the jaw at once. Hold a sheep by standing or kneeling on one knee at the left side of the animal, place one hand under the jaw and the other on top of the head. This method is convenient, simple, effective and is not unpleasant to the sheep.

### Quality and What it Means.

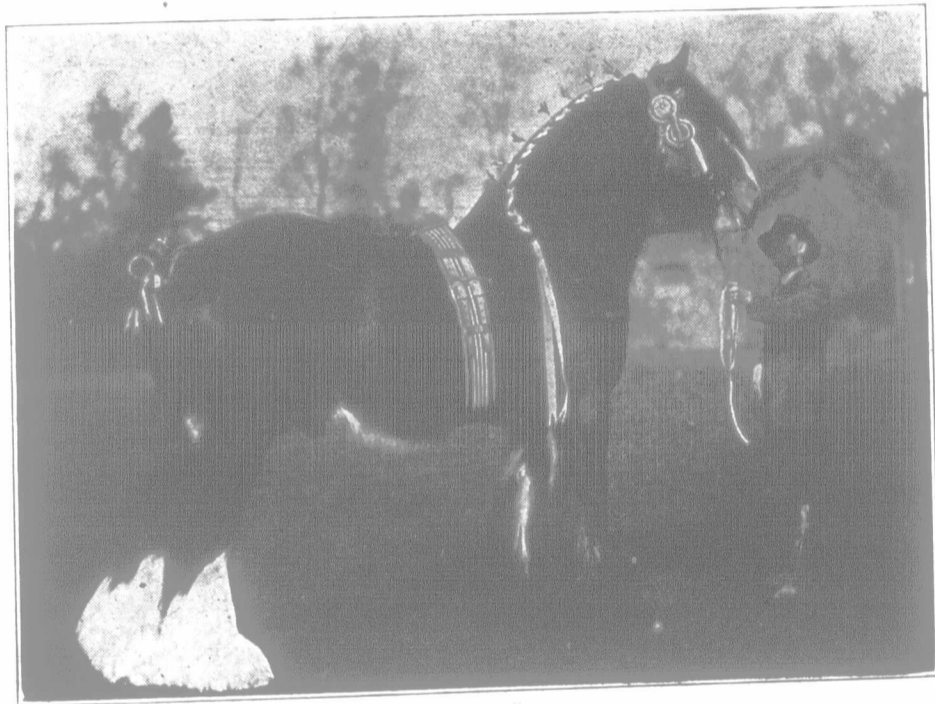
There is hardly any term connected with live-stock breeding which means so much, and yet is so difficult to define as quality. Every breeder, whatever class of stock he may breed, recognizes the value and importance of quality in any pure-bred animal. He knows full well what quality is when it is there, and yet very few can really describe what the term conveys to their mind. The phrase quality is inclusive of many other attributes besides handling, and yet there is no animal which does not need the "touch" of the human fingers in some portion or other of its anatomy before it can be actually judged worthy of the definition "full of quality." Take the Hunter, for example. What must we look for in a "quality" Hunter? Surely something more than the aptitude to convert a lot of oats and hay into flesh and muscle. To say a Hunter is full of quality means that his whole outlook is one of high breeding and refinement. His coat, his skin, the texture of his bone, which must be "handled" to see if it is of the proper flat and whalebone sort which wears, are all indicative of quality, and have nothing whatever to do with his ability to convert oats and hay quickly into flesh and muscle. The last named comes from training and exercise, and some horses are far better doers than others; but horses of the highest quality may be bad feeders all the same.

When we speak of a Shire as possessing quality we surely mean the texture of his bone and feather, of the coat and skin, and his well-bred refined look. We often refer to a horse as looking or walking like a gentleman. These are the sort which usually can be defined as possessing quality, not the gross, common-bred looking creature, however fat and full of muscle he may be. A judge of quality can tell if a horse is possessed of it, even when running rough about in the fields in winter. It has nothing to do with condition, but it has everything to do with the appearance of good breeding.

And so in cattle. "touch" or "handling" play a greater part in making up the term quality as applied to cattle; but there are many other attributes which a beast must have before it can truly be said to be of good quality. As regards cattle, it is granted at the outset that aptitude to convert feed quickly into flesh is an important sign that quality is there, so is the mellow touch of the skin and hair, which denote the aptitude to fatten; but, in addition to all this, there must be not only a mellow touch, skin and hair having a velvety feel, but there must be the aptitude to lay on flesh firmly in the proper places and on a symmetrical form, and all that does not go far enough to indicate quality. There must be a highly refined appearance, showing good breeding. Without handling, how is it possible to tell the feel of the skin and coat, or the firmness of flesh? Silks and satins are of many qualities, but it is necessary to handle them to tell which are of the highest quality. There may be a score of well-fleshed cattle in a bunch together, all of which may be described as good feeding animals; but probably there may be only two or three, or even none, which can be described as possessing quality. We all agree that quality is quite visible to the naked eye of a good judge, and if he cannot define the term he knows it when he sees it and recognizes its full value.

Quality in sheep is usually found in the color and texture of the skin, and in the texture and staple of the fleece, in addition to the grain of the mutton and freedom from coarseness in every way. Now, quality in sheep is denoted to a great extent by the "handle," and let anyone put his hand on the back of a pedigree Shropshire or Southdown teg in any market, and then let him try the backs of any sheep of the larger and coarser breeds, and if he has any intelligence he will soon feel the actual touch of quality.

Now as to the pigs. Some pigs are just as full of quality as others are coarse, yet the coarser animal may be capable of converting a lot of feed into bacon in a fairly short time; but in a pig the skin, the abundance and texture of the hair, the touch of his flesh, the absence of all coarseness, and the form of his carcass, all go to build up the meaning of the word quality as applied to him, as well as aptitude to feed and the possession of a good admixture of flesh and fat. A highly-bred pig can never be coarse. He is bound to show quality in



Field Marshal 5th.

Awarded the stallion championship at the recent London Show. Owned by His Majesty the King.

How long will it be before a township or county in Ontario can proclaim that "no scrub sires are to be found within their boundaries?"

Pigs cannot be expected to thrive when forced to remain in a pen knee deep in manure. If there isn't time to clean the pen turn the pigs on grass.

In many localities the stock seen on pasture is very thin, and to make matters worse the grass is short. This is a poor combination for making profits.

When sheep are allowed to run on the roads or commons, the owner should not complain if a few are accidentally killed. The road is no place for sheep.

Just because the price of long wool is not what it was during the past two years, sheep owners should not be discouraged and reduce the size of their flocks.

The manner in which pigs are fed is particularly responsible for the gains they make. Feed isn't everything. Pigs must be looked after as well as fed.

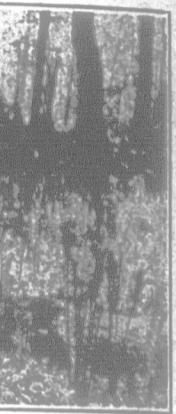
If the calves are turned on grass use them well. Give them a chance to get grain and also shelter if you want them to grow and improve as rapidly as possible.

A Canadian-bred Aberdeen-Angus cow recently sold at a sale in United States for \$7,100. She was by Evereux of Harviestoun, and out of Queenston Envy Not.

On the city market recently some consumers were complaining about the price of butter, now that cattle are on grass. The price of grass may be no dearer than a year ago, but there is less of it and the cows are not in condition. The problems of the producer are foreign to many consumers.

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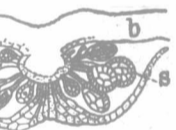
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some degree or other, and therefore in all animals whether they be pure or cross-bred there must be breeding. No "scrub" can ever produce an animal with quality. Breeding must be there, and without good breeding it is generally in vain that we look for "quality."

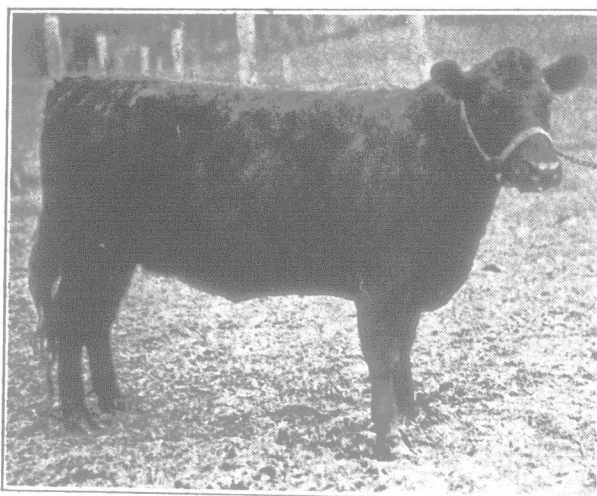
The word quality conveys a great deal of meaning to the breeder, and it would probably be more easy to fully realize the proper and inner meaning of it if character could be always coupled with it. Surely character is a product of good breeding. When we write of an animal having character and quality, then it is much easier to realize what is meant. Anyone with an eye to form can detect at once good breeding in an animal. There is the carriage, the look of refinement about the head, and the quality of the skin, hair and flesh, which denote breed, and to a great extent the same attributes can be seen in the horse, cow, pig and sheep if in the case of the last named we substitute wool for hair.—Live-Stock Journal.

**Troublesome Flies.**

The last two years flies have been particularly troublesome to the live stock. In a few weeks flies will again make their appearance. Whether they will be as bad, or worse, than in previous years no one can tell definitely, but one thing is certain that if the cattle are continually tormented by these pests they cannot give their owner as large returns as they would if free from these tormentors. The common stable fly is with us every summer. It is a biting insect that is fearless and persistent. They may be driven off the animal's body one minute, and the next minute they are back as thick as ever. Not only do they annoy the animals, but they cause pain and loss of blood. In some countries the fly is a carrier of disease, but happily we are comparatively free from that in Canada, although it is claimed that the common stable fly may transmit such diseases as anthrax from diseased to healthy animals. Fly repellents may be used to ward off the fly, but a good deal can be done in lessening the numbers by keeping the premises clean. The fly breeds in decaying material, therefore the cleaner the barnyard the less the chance of the flies multiplying. The warble fly is also quite common, especially in some localities. Most stockmen are familiar with the warbles or grubs found under the skin on the backs of cattle during the latter part of winter and early spring. These grubs are the larval stage of the warble fly. It is claimed that these flies are unable to bite, but the stock appear to be afraid of them and are sometimes stamped by the presence of the fly. These grubs under the skin become full grown in early summer and force their way out of the skin, fall to the ground and are there transformed into a mature fly. Not only are these grubs a scourge of pain to the cattle, but they greatly injure the skin. By destroying these grubs, the number of flies to perpetuate the trouble will be considerably lessened. We have heard of localities where this pest is not troublesome, but as a rule it is found pretty much over the Province.

It is rather difficult for us to conceive of the amount of misery flies cause the stock. One thing is certain, animals must suffer or else the milk flow would not fall so rapidly, or beef animals fail to make economic gains, when fly season is at its height. The fly seems to be most annoying around mid-day when the sun is the hottest, or on a close, muggy day. Where possible it is a good plan to give the cattle access to shade, or the stable, during the heat of the day. On some farms it can be arranged so that the cattle can go to a shed where they may lie in comparative comfort during part of the day. When the cattle are entering the stable a good many flies may be brushed off their bodies by having sacks hung from the top of the door frame so they will brush against the body. If protection cannot be given to the entire herd, the calves especially should be looked after.

There are a number of fly repellents, some of which have given results. There are a number of remedies which may be compounded at home at less cost than the commercial product. One mixture is 100 parts fish oil, 50 parts oil of tar, one part crude carbolic acid, and applied by means of a spray pump. Using one part crude carbolic acid to ten parts fish oil has been found to repel the flies. Care must be taken, however, that this does not cause blistering. It is well to apply it with a cloth dipped into the liquid and squeezed partly dry, then passed lightly over the hair. This mixture will repel the flies for a day or two, as will also a mixture of rancid lard, one pound, and, kerosene, one-half pound, applied with a cloth or brush. Another remedy is fish oil, two parts, and pine tar, one part, thoroughly mixed together and applied with a brush. Whatever material is used, care should be taken not to apply too heavily as there is danger of blistering the skin. Materials must be applied frequently if results are to be obtained. The warble flies, as well as the common stable fly, will be checked by applying any of the mixtures previously mentioned. When the cattle are on grass it is almost impossible to apply treatment regularly, but in the case of a milking herd or the young stuff which come to the yard daily for water, they may be put more at ease during the fly season if a fly repellent is used. Anything which will add to the comfort of the stock, helps to increase the gains, and, ultimately, the profits.



The Type of Angus Heifers in the Angus Sale, Toronto, June 2.

**A New Shorthorn Record.**

Montvic Mollie, owned by P. D. Macaulay, Hudson Heights, Quebec, has broken the Canadian record for the Shorthorn breed. She gave 16,815 lbs. of milk, with 711 lbs. of fat, in one year, her milk testing 4.23 per cent. butter-fat. It is in butter-fat that Montvic Mollie replaces Coquette 2nd., which gave 17,723 lbs. of milk and 636 lbs. of butter-fat in one year. Montvic Mollie is ten years old and, as can be seen from the illustration herewith, is a nice roan with plenty of substance and quality. Her sire was Leopold of Riverside, which was by imported Leopold, and her dam was Roan Belle, by Langford Eclipse, a very good imported Lavender sire.

**The Whole Tale in a Few Figures.**

One reason why producers, packers and Government are so much in earnest about the campaign to reduce disease in Canada's live stock is to be found in the significant and alarming figures which register the increase of tuberculosis in cattle and hogs during the

last ten years. The inspection carried on at the large abattoirs uncovers all cases of tuberculosis. Some animals are badly affected and the whole carcass must be destroyed; in other instances the infection is localized and only parts are discarded. During the last ten years there has been a very considerable increase in the number of affected animals passing through inspected slaughter houses, and this is a pretty good index to the extent of infection throughout the country. The following table shows the percentage of cattle affected with tuberculosis passing through inspected slaughter houses in 1910, 1913, and 1919.

PERCENTAGE OF CATTLE AFFECTED.

	1910	1913	1919
Ontario.....	2.68	3.39	3.5
Quebec.....	3.36	5.62	4.85
Manitoba.....	4.1	4.1	5.16
Saskatchewan.....		2.01	2.83
Alberta.....	.61	.57	1.42
British Columbia.....		.57	3.05
All Canada.....	2.96	3.89	3.72

Even more alarming were the discoveries made in regard to the tuberculosis infection in swine. From dairy districts, particularly, swine showed a very significant increase in disease. Hogs, of course, are slaughtered before tuberculosis becomes extensively diffused through the body. However, hogs contract bovine tuberculosis from cattle running on the same farm, and if the cattle were not affected with tuberculosis, in all probability the swine would be free from it. The following table shows the percentage of swine affected with tuberculosis passing through inspected slaughter houses, and it reveals an increase of over 100 per cent. in the last ten years.

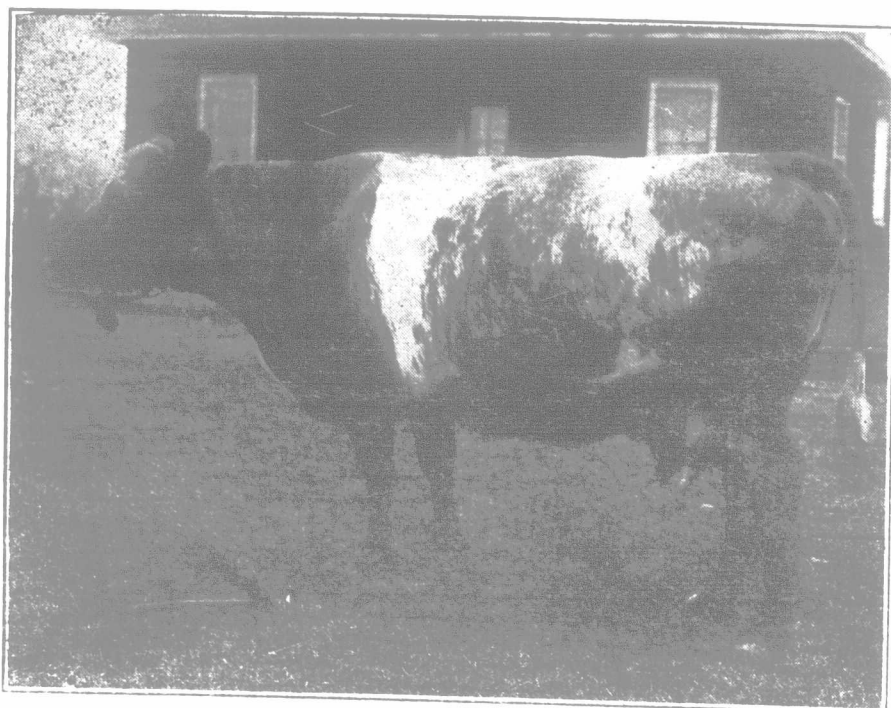
PERCENTAGE OF SWINE AFFECTED.

	1910	1913	1919
Ontario.....	10.4	16.0	21.4
Quebec.....	7.23	11.6	10.59
Manitoba.....	3.7	5.97	19.9
Saskatchewan.....		14.2	21.0
Alberta.....	5.59	4.58	21.3
British Columbia.....		7.27	17.0
All Canada.....	8.9	13.41	19.4

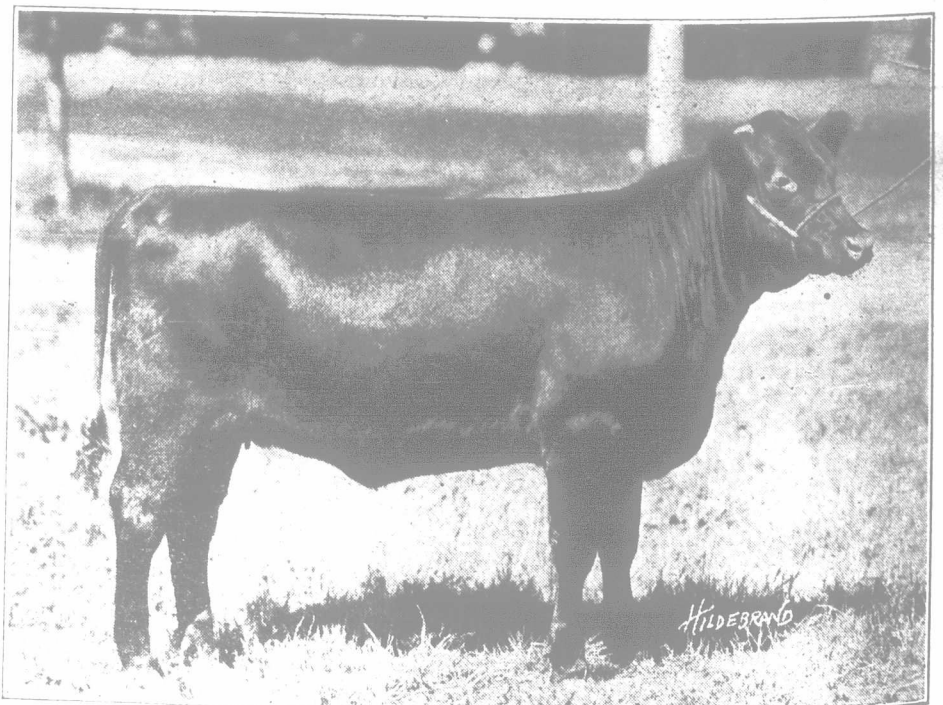
These tables furnish conclusive evidence that something should be done to check the ravages of this great scourge and prevent its further increase.

**Inspection of Calves at Public Stock Yards.**

There is sometimes a tendency for drovers to place immature calves on the market. This practice is more common in dairy districts where the dairymen do not care to be bothered with the calves. It is generally understood that calves under three weeks of age are not really fit for human consumption. Recently an order-in-council has been issued to amend Clause 26 of the regulations of the Live-Stock Products Act of 1917. This order becomes effective on May 25, and calves offered for sale on public stock yards will be subject to inspection by the Department of Agriculture. Calves three weeks of age and under and other immature calves will be liable to condemnation. The regulation as forwarded by the Live-Stock Commissioner reads as follows: "The proprietor shall not permit the disposition in the yards of dead, downers, cripples, immature calves, or calves under three weeks of age, except under the authority of the Minister or inspector." It costs considerable to make good veal, especially



Montvic Mollie. The new Shorthorn record cow of Canada, which produced 16,815 pounds milk and 711 pounds fat in one year.



Rosewood 40th. First prize junior Shorthorn heifer calf C. N. E., 1919. Bred by A. G. Farrow, Oakville, and sold in Dryden-Miller sale in February, 1920, for \$3,100.

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ried on at the large tuberculosis. Some whole carcass must infection is localized During the last ten able increase in the through inspected ty good index to the country. The ge of cattle affected inspected slaughter

when new milk must be used. However, it is only a matter of feeding for five or six weeks, and in most cases a calf at that age should be worth more than the price of the milk it consumed. Calves which might not make good feeders if raised very often are choice veal if fed a few weeks. There is a market for good veal and it is but right and proper that the unfinished, immature stuff should be kept off the market, not only at the public stock yards but on local markets as well.

### Government Regulations Hampering Live-Stock Imports.

EDITOR "THE FARMER'S ADVOCATE":

I have read with interest your editorial in the issue of May 13, on "Our Live Stock Needs Good Blood." There is much in the article to be commended, and even though our Governments—Dominion or Provincial—may not see their way to materially assist, I think they should at least do everything in their power to encourage the men who are willing to use both their time and their capital in this work.

I am most familiar with the cattle end of the business, and in one respect, at least, our existing import regulation neither offer support nor encouragement to our Canadian importer. I refer specifically to the application of the tuberculin test. Under the existing regulation animals are subjected to the test when leaving quarantine, and in the event of a reaction the animal is punched in the ear and the importer is allowed to make whatever disposal of the animal he sees fit. He can hardly be blamed if he endeavors to make the most he can out of it and thereby at least recoup himself for the expense he has incurred, even though this animal may actually be a menace to the health of the animals it comes in contact with.

In our export trade all animals are tested by our Federal officers, the healthy ones allowed to pass out, the unhealthy ones punched in the ear and allowed to remain. Is this a policy likely to improve the health of our Canadian herds? Surely "what is sauce for the goose should be sauce for the gander," and if we have to keep the unhealthy animals that are disclosed by our export trade, surely we should try to keep out the unhealthy ones disclosed in our import trade. If it has proven impossible to apply the tuberculin test fairly in the country where animals are imported from (and other countries have evidently not found it so) then let us destroy the reactors when found in our quarantine stations here, and at least compensate the importers for a share of their loss and thereby show them that their efforts for the betterment of our Canadian herds is being appreciated by our Government. It is quite a well-known fact that our existing regulations keep many men away from the importing business, that have both the means and the knowledge to do much for the cattle industry of Canada.

GILBERT McMILLAN.  
Quebec.

## THE FARM.

### U. F. O. vs. Agricultural Representatives.

EDITOR "THE FARMER'S ADVOCATE":

There is a great deal of controversy in the rural sections as to the position the Agricultural Representatives will be allowed to take in regard to the U. F. O. movement, which is now so popular in Ontario. Numerous picnics and gatherings will be held in every district to celebrate the victory of October 20, 1919, and to organize the rural people for the great U. F. O. cooperative stock selling campaign, during the week of June 14, 1920. As the Agricultural Representatives are expected to be in touch with the rural movements and people at all times, what position will they take in these coming demonstrations? Are they to hold themselves aloof, and not be given an opportunity to express their views on rural problems and mingle with the people? In the past they have felt not any too safe in identifying themselves with the great rural organization. Why should they not be allowed to freely express themselves and give leadership and advise to all the people they are expected to assist at all times?

I believe it is time that the rural people and Agricultural Representatives had a clear ruling on this matter by the Department of Agriculture. If, as it has been stated time and again from the public platforms of Ontario, these trained Representatives are leaders of the rural sections on all questions, why should the Department of Agriculture refrain, as in the past, from appearing in future, at all rural gatherings, and discussing the issues of to-day as they find them. Only in this way can these Agricultural Representatives express and describe conditions as they find them in rural Ontario of to-day. By all means I say the rural people should demand that the Agricultural Representatives have free hand and voice in the future welfare of Ontario. Let these Representatives be free at all times, and then the Department of Agriculture, the Government and people at large will benefit by the experience of these agriculturists and graduates of the Ontario Agriculture College, who, we read, are trying to do so much for the agriculturists of Ontario and Canada at large.

This is written with the object of having the agricultural press lay this matter before its readers for discussion so that the Department of Agriculture will be guided in the future by the rural reader's views.  
Oxford County, Ont. J. J. McNALLY.

### The 1920 Budget.

On Tuesday, May 18, Sir Henry Drayton, Minister of Finance, delivered his budget speech in the House of Commons and cleared the air regarding the Government's policy of taxation and financing to meet ordinary and capital expenditure. No one is immune from the influence of this budget, and never was there so much interest taken before in the annual financial address.

Sir Henry Drayton declared that Canada would do no more borrowing, and from this time forward should adopt a pay-as-you-go policy. In order to make this possible the following increased taxation was announced:

1. One per cent tax on all sales of manufacturers, wholesalers, and importers, except on foods, feed for live stock and coal.
2. Excise taxes running from 10 to 50 per cent. of the selling price of goods, particularly on clothing ranging above certain specified prices, and upon luxury articles, made of gold or silver, whether imported or manufactured in Canada.
3. Heavy excise taxes on all spirituous liquors. These range from 30 cents a gallon on ale, beer, porter, etc., to \$2 a gallon on rum, whiskey, brandy, gin, etc., and \$3 a gallon on champagne and sparkling wines.
4. An increase of 5 per cent. in all taxation on incomes of \$5,000 and upwards.
5. Stamp taxes of two cents on promissory notes and bills of exchange for every \$100 for which drawn.
6. Stamp tax of two cents on every share of stock transferred.
7. Twenty-five to fifty cents on every pack of playing cards sold.
8. A license fee of \$2 on every merchant dealing in various luxury articles mentioned.

The 7½ per cent. extra customs war tax, which brought \$30,000,000 last year, is repealed. The business profits tax is retained, but businesses are exempt up to 10 per cent. profits but the tax on profits above 10 per cent. and less than 15 per cent. is reduced from 25 to 20 per cent. on all businesses having a capitalization of not less than \$25,000 and not more than \$50,000 except where more than 20 per cent. of the profits was gained in 1917 or 1918 from munitions industry. There were some minor reductions in the tariff, permitting

"(B) To stabilize legitimate industries and to encourage the establishment of new industries essential to the proper economic development of the nation, to the end that a proper and ever-increasing field of useful and remunerative employment be available for the nation's workers.

"(C) To develop the fullest extent of our natural resources.

"(D) To promote specially an increased trade with the Mother Country, with sister Dominions, and colonies and Crown dependents.

"(E) To prevent the abuse of the tariff for the exploitation of the consumer and

"(F) To safeguard the interests of the Canadian people in the existing world struggles for commercial and industrial supremacy."

The Finance Minister prefaced his taxation proposals with a general review of the economic position which Canada now occupies. After dwelling on Canada's war efforts and the situation which the great struggle created here, he said "the duty to-day is not only to carry on the Government of the country without any additions to the debt, but, on the other hand, to promote measures which will reduce the nation's indebtedness. Indeed," Sir Henry proceeded, "were it possible for the country again to become as united and earnest as it was during the war period; if it were possible for each and all of us to sink all differences, class and sectional interests and jealousies into an effort toward re-establishment of a Canada as united and co-ordinated as that which won the war, the task would indeed be easy and simple."

#### THE NATIONAL DEBT.

The Finance Minister gave the gross national debt as \$3,014,483,774.12. Investments reduced this by \$1,078,537,461.27, leaving a net national debt of \$1,935,946,302.85. In a commendable manner, Sir Henry Drayton then proceeded to reveal how some of the investments, chiefly those in Government railways, were not active but actually meant an obligation to the country. On this basis he transferred the inactive items from the investments and added them to the national debt. A total of \$337,359,124.07 was thus removed from the investment side of the ledger to the

AFFECTED.

1913	1919
3.39	3.5
5.62	4.85
4.1	5.16
2.01	2.83
.57	1.42
.57	3.05
3.89	3.72

discoveries made in on in swine. From showed a very signif- ggs, of course, are becomes extensively ever, hogs contract nning on the same ed with tuberculosis, e free from it. The ge of swine affected inspected slaughter f over 100 per cent.

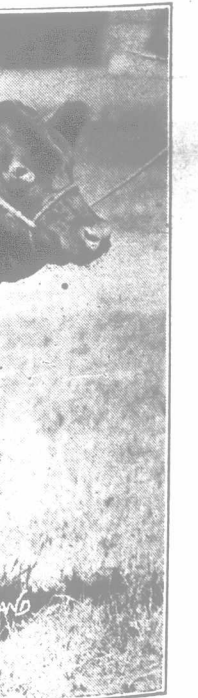
AFFECTED.

1913	1919
16.0	21.4
11.6	10.59
5.97	19.9
14.2	21.0
4.58	21.3
7.27	17.0
13.41	19.4

evidence that some averages of this great ase.

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for drovers to t. This practice here the dairymen lves. It is general- e weeks of age are mption. Recently o amend Clause 26 rducts Act of 1917. ay 25, and calves ds will be subject t of Agriculture. der and other im- ndemnation. The ttock Commissioner all not permit the downers, cripples, ree weeks of age, ister or inspector. od veal, especially



Oakville, and



A Hampshiredown Fair and Sale in England.

typewriters, books, and other articles for the blind to come in free.

In regard to the excise tax, Sir Henry said: "Not only is more revenue necessary, but extravagant and luxurious expenditure ought to be checked. Just so long as expenditure on non-essentials and extravagant expenditure continue, just so much longer will the drop in the value of essentials be postponed."

Shoes selling for more than \$9, and suits of clothes for more than \$45, pay a tax of 10 per cent. This is considered a rather severe tax on the absolute necessities of life. It is difficult to obtain a good pair of boots under \$9, and it is a question whether one gets as good value for his money when he buys a suit of clothes for less than \$45 than he would in a more expensive one. The budget has been severely criticized in this connection but if people are encouraged to demand lower-priced commodities perhaps the Finance Minister's purpose will have been accomplished.

It is altogether probable that the one per cent. tax on turnover to be collected from manufacturers, wholesalers, or importers, will ultimately be paid by the consumer. It is a safe guess that this tax will be added to the invoices as the goods pass on from manufacturer to wholesaler, retailer and consumer.

The excise taxes, it will be noted, apply to imported as well as domestic-made goods, thus leaving manufacturers about the same amount of protection as they previously had. However, the Finance Minister again promised a thorough investigation of the tariff, which he said has already commenced and public sittings will be held throughout Canada after prorogation. "Our policy," he said, "calls for a thorough revision of the tariff with a view to the adoption of such reasonable measures as are necessary."

"(A) To assist in providing adequate revenues.

other side, bringing the actual national debt up to \$2,273,305,436.92.

The currency situation in Canada was said to be good, and large as it was the circulation was all required. Canada alone was not responsible for high prices, and were it possible suddenly to deflate Canadian credits and circulation with the general demand for commodities that to-day existed the influence on the situation would be negligible. Prices would continue high and the only result to the Canadian public consequent on the withdrawal of purchasing power would be stagnation of business, unemployment, and loss of production.

The Finance Minister reviewed the exchange situation between Canada and the United States and said it will be remedied and can only be permanently relieved when exchange advances to its normal position and Canada's interchange of commodities with the United States is reduced to a more reasonable ratio.

#### CANADA'S REVENUE.

The revenue for the fiscal year 1919-20, it was stated, would reach approximately \$388,000,000, the largest revenue Canada had ever collected. This revenue was no less than \$255,000,000 greater than that of the first year of the war. Revenue for the fiscal year 1920-21 estimated on the basis of existing fiscal legislation, and assuming that values of importations for customs purposes should practically remain the same as for 1919-20, should amount to \$381,000,000.

The value of a flax crop depends to a very large extent on the manner in which it is harvested and cared for. A small acreage well handled is worth more than a large acreage that produces nothing but green tow.



## AUTOMOBILES, FARM MACHINERY AND FARM MOTORS

### Tools for the Garage or Workshop.

Under the present conditions many owner-drivers of both heavy and light cars are experiencing some difficulty in getting repairs done at the local garages and repair works, owing to a scarcity of competent motor mechanics.

Many car owners are quite capable of undertaking their own repairs, or even a complete overhaul, with a little instruction. The only difficulty confronting the majority is a want of confidence. If it was only realized that the dismantling and re-assembling of a motor car presents as little difficulty, and certainly as much pleasure, as a "jig-saw" puzzle, the average repair garage would have a bad time. Motor car parts are made within such accurate limits that they must go together again as they were taken apart.

#### USEFUL AND NECESSARY TOOLS.

The first matter of importance when undertaking one's own repairs is the selection of useful and really necessary tools. The first item that enters the head is a lathe. The necessity of possessing such an expensive tool seems to put many off the idea of undertaking repair work. The lathe is not a necessity unless it is desired to make a hobby of experimenting or making new parts. It is a luxury that can be easily dispensed with. In the majority of cases it would never pay for itself; it is much cheaper to buy new parts or to put turning work out.

Before undertaking repair work the garage must be set out in the most convenient way possible. Choose the lightest end, under a window for preference, to set up a bench upon which to work. Care must be taken that it does not interfere with the convenience of getting the car in or out. A convenient length is about 6 ft.; the width should be not less than 2 ft.; and the height 2 ft. 9 ins. The thickness of the top boards is usually not less than 2 ins. Alternatively, if the front board is a fair width, say, 8 ins. or 9 ins., the others can be thinner, but not less than an inch. The bench is supported by three pairs of legs of not less than 3 ins. square timber. If the bench does not exceed 6 ft. in length two pairs of legs could be made to answer the purpose. These should be of 4 in. square timber, and stand in about 1 ft. from the ends of the top boards. It is a good plan to fasten the bench to the wall to secure rigidity.

#### A BENCH VISE.

Having prepared the bench the next step is the selection of a bench vise. This is quite an indispensable tool, and for ordinary motor car work a small one is all that is required. At the same time it must be strong. A parallel vise with jaws not less than 3 ins. wide will answer the purpose, and it will be cheapest in the long run to buy a good one with steel jaws. The cheap cast-iron vises are not a bit of use, as they are liable to break under any sudden strain or jar.

The vise is best fitted directly over the centre support of the bench or as near as possible to it, this being the best position to take strains without being inconvenienced by the springing of the bench boards. It must be securely bolted down, the bolts going right through the bench boards, with large flat washers on the underside. The correct height of the vise from the floor can be judged by standing erect and bending an arm. The height of the elbow from the floor should correspond with the top of the vise jaws.

#### WISE CLAMPS.

When gripping soft metal or a highly-finished part in the vise it is advisable to protect it from the rough surfaces of the jaws. This is usually accomplished by using what are known as vise-clamps. They are made of sheet copper, brass, or lead.

For a start a few files are required. It will be found useful to have two 10-in. flat files, one rough and one smooth. Two half files of the same description, and a  $\frac{3}{8}$ -in. and a  $\frac{1}{4}$ -in. round file.

To use a file properly is not as easy as may be imagined. The handle of the file is held in the right hand and the extreme end by the fingers and thumb of the left hand. Commence to file from the tip towards the handle. At the beginning of the stroke the greatest pressure is at the tip and the least at the hand. As the stroke progresses the pressure is relieved at the tip and increased on the handle. At the middle of the stroke the pressure is equal at both ends. On the return to the original position the file should be slightly raised from the work, as it only cuts one way. This is the secret of filing flat and evenly. A half-round and a round file are used in the same way except that a turning motion is imparted to them with the right hand in a clockwise direction as the stroke progresses.

The most useful weight for a hammer is about 14 lb. It is convenient to possess a smaller one of 12 lb. weight for small riveting work. A chisel or two will be required, a flat one about  $\frac{3}{4}$  in. wide, and cross-cutting chisel  $\frac{1}{2}$  in. wide, and a small round nosed chisel for turning oil ways.

There are a few more tools which will be useful, such as a centre punch, a scriber, the centre of holes that are to be drilled, and a file to give the drill a start. For sawing a hole in a metal plate a small pin punch or two are needed.

Other indispensable tools include a hand screw driver, and a set of screw drivers for 1/4, 3/8, 1/2, 5/8, 3/4, and 7/8 in. holes, and

a selection of drills from 3-32 in. up to  $\frac{1}{2}$  in., varying by 1-16th inch. Dies and taps are expensive tools, but it will often be found convenient to possess them. It is best for an amateur to buy as required. If he is the owner of a British car the nuts and bolts will invariably be Whitworth thread. Should the car be French they will be in millimetre sizes. American makers usually adopt the fine threads, 24 to the inch up to  $\frac{5}{8}$  in.; the larger sizes 20 threads to the inch.

Great care must be taken in using dies and taps, especially the latter. Use plenty of oil when screwing iron or steel, and only cut the thread in a clockwise direction. If there is an inclination to stick give a half-turn back and go on again. Do not violently turn in both directions or the cutting edges will be spoiled, and do not on any account try to screw or tap hardened metal; soften the part first.

For cutting bolts or metal a hacksaw is used. For measuring external widths outside calipers are needed; for measuring and gauging holes and internal work inside calipers; for truing surfaces at right angles to one another a steel square will be needed; also obtain a steel 12 in. rule.

If it is intended to undertake brazing and soldering it will be necessary to have a petrol, a paraffin, or a gas blow-lamp capable of doing the work. A large soldering iron about 12 oz. will be required as well as a smaller one of about 4 oz.

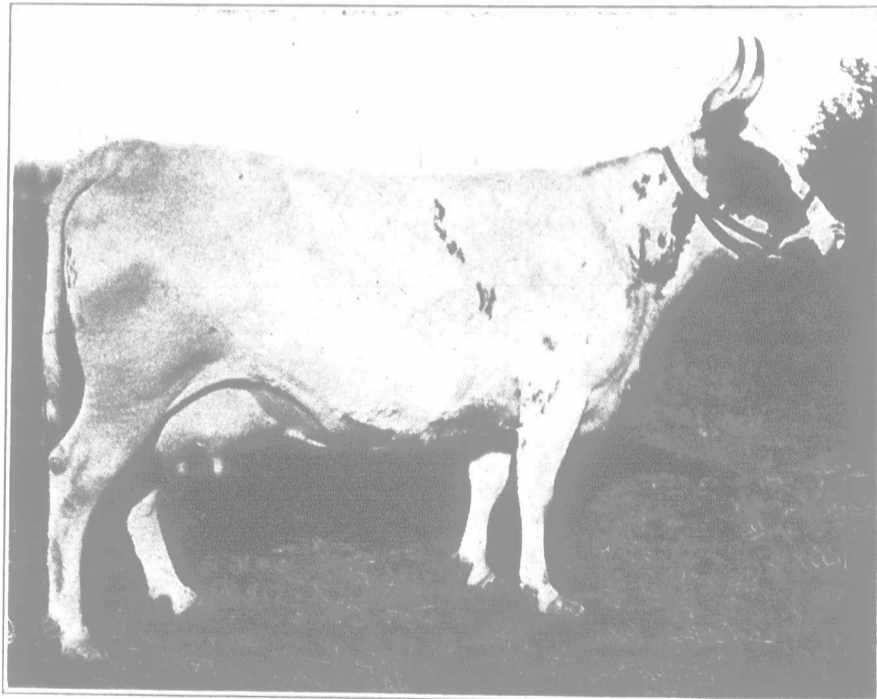
A good selection of spanners is absolutely essential. A full set suitable for motor car work should range from 3-16th-in. nut spanner to  $\frac{1}{2}$  in. For any nuts larger than this size, which are few, special spanners will be found in the car kit. Double-ended set spanners with hardened steel jaws are the best. It is always advisable to buy good tools, as cheap soft spanners spread at the jaws and spoil the nuts. A set of box, or tube, spanners is also essential, and they should be strong but not too thick. Their chief use is for getting at nuts which are not accessible to the ordinary spanner. Complete the kit by including a 6-in. or 8-in. adjustable spanner of a strong pattern.

All that is now required are a pair of pliers about 6 ins., with side cutters for preference, a small pair of pipe grips, a Stillson wrench or a pair of "Footprints" are most useful, and two screw-drivers, one large and one small.

## THE DAIRY.

### Over Feeding the Calf.

Over-feeding is a particular source of trouble in rearing calves with some dairymen. This is especially true where skim-milk is being fed. With regard to this danger, Professor C. H. Eckles, Chief of the Dairy Husbandry Division, Minnesota College of Agriculture,



Evergreen Maid of Beauty 2nd.

This splendid Ayrshire matron is owned by the University of British Columbia and has an R. O. P. record of 631 lbs. fat from 16,208 lbs. milk.

says: "Over-feeding is probably the most common cause of lack of success in raising calves. It is a mistake to assume that because the cream has been removed the calf needs more milk or that because the calf is not doing well it is not getting enough milk and should be allowed to gorge itself. A good rule is always to keep the calf a little hungry. Some provision must be made for making certain that each animal gets its share and no more. A satisfactory plan is to tie the calves in small stanchions during the feeding. Each calf then gets its proper amount and cannot interfere with the feeding of others.

Under natural conditions the calf takes its milk frequently and in small quantities. When fed by hand, two feedings a day is the general practice and special care must be taken not to allow the calf to consume more milk than it can digest. For the first two weeks 12 to 12 pounds a day is all that the large calf should receive. If it can be done without too much incon-

venience, the calf at this age should be fed three times rather than twice daily.

"As the calf grows older, twice-a-day feedings, are sufficient and the milk may be increased, but at no time is it necessary to feed more than 16 or 18 pounds daily. By the time the calf needs more than this amount, it will take the additional feed necessary in the form of grain."

### Slacker Cows in the Dairy Herd.

Here is a statement by officials of the U. S. Department of Agriculture that will bear repeating widely among dairymen. The cow testing habit is not spreading fast enough in Eastern Canada.

"Income from dairy cows advances at a remarkable rate as milk production increases. This is why poor producers should be weeded from the dairy herd, particularly at this time when more milk is needed, when feed is in demand, and when labor is scarce. Tabulations of 5,587 cows testing association records gathered by the United States Department of Agriculture from various parts of the country, covering a period of four years, show that as the average butter-fat production increased from 150 to 200 pounds the income over cost of feed advanced from \$21 to \$34; that is, a gain of 50 pounds, or 33 1/3 per cent. in production gave an increased income of 62 per cent. over cost of feed. The next gain of 50 pounds raised the income over cost of feed to \$50, the next to \$63, the next to \$74, the next to \$87, the next to \$100, and the last to \$118.

"As the butter-fat production increased from 150 to 300 pounds, the income over cost of feed advanced from \$20 to \$63; in other words, as production doubled income over feed cost advanced three times. When the butter-fat production increased from 150 pounds to 450 pounds—that is trebled—the income over cost of feed advanced from \$21 to \$100, or almost five times as much.

"At this rate of increase, when only cost of feed is considered, one cow that produced 450 pounds of butter-fat a year would show as much income over cost of feed as twenty cows whose average production was 100 pounds.

"A study of records, says Department of Agriculture, showed that the cost of roughage was about the same for all the cows, regardless of production. The cost of grain was considerably higher for the more productive cows than for the low producers, but it was much lower per pound of butter-fat. The increased income, however, though it should be credited in part to better feeding, was evidently due more largely to better cows."

### April Records for Holsteins.

During the month of April the official tests of 173 Holstein cows and heifers were received and accepted for entry in the Record of Merit. In the mature class, 50 records are recorded, headed

by Princess Posch Albino, with 33.31 lbs. of butter from 685.17 lbs. milk. Next comes Rosa Lee Plus De Kol, with 31.38 lbs. of butter from 596.5 lbs. of milk. Another five-year-old cow, Annie Shadeland Faforit, stands third, with 31.07 lbs. of butter from 663.9 lbs. of milk, while in fourth place is Burke Bos De Kol, with 30.02 lbs. of butter from 681 lbs. of milk. In the senior four-year-old class there are twelve contestants for honors, headed by Lady Pietertje Van Dyke, with 27.03 lbs. of butter from 587.6 lbs. of milk. Fifteen junior four-year-olds are included, with Pontiac Segis Alcartra Prescott leading with 31.09 lbs of butter from 491.9 lbs. milk. Next to her comes Madam Pauline Sylvia, with 30.52 lbs. butter from 526.1 lbs. milk. Segis Alcartra Echo leads twelve senior three-year-olds with 30.24 lbs. butter from 536.6 lbs. of milk, while next to her comes Segis Alcartra Keyes, with 29.60 lbs. butter from 586.6 lbs. milk. In the junior three-year-old class

there are twenty-two records listed, Roycroft Mildred leading with 25.55 lbs. of butter from 519.7 lbs. of milk, and Pioneer Albino Mechthilde following with .05 lbs. less of butter from 574.6 lbs. milk. There were also 22 senior two-year-olds, and these are led by Pontiac Pietje Duplicate, with 26.91 lbs. of butter from 542.9 lbs. of milk, while the 39 junior two-year-olds are led by Walnut Crest Rag Apple Buttercup, with 28.86 lbs. of butter from 364.7 lbs. of milk. This is probably the most remarkable record in this report.

Semi-official records of Holstein-Friesian cows for the month of April show Butter Cup of Milner to have produced 21,572 lbs. of milk and 797 lbs. of fat, or 996.25 lbs. of butter at the age of seven years. R. K. Bell, a four-year-old, produced 20,994 lbs. of milk and 746 lbs. of fat, or 932.50 lbs. of butter, while a third cow, Helena Keyes Posch, produced 20,205 lbs. of milk and 655 lbs. of fat, or 818.75 lbs. of butter. The latter cow is owned by the Dominion Experimental Farms

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MAY 27, 1920

system, Ottawa. In the three-year-old class eleven R. O. P. records are headed by Johanna Lyons, with 12,627 lbs. of milk, 462 lbs. of fat and 577.50 lbs. of butter. Eight two-year-old records give S. C. M. Leonora Mechthilde first place, with 11,266 lbs. of milk, 488 lbs. of fat, and 560 lbs. of butter.

**The Profitable Dairy Herd Sire.**

At the present time there is being carried on in the Province of Ontario a campaign for the elimination of the scrub sire and the substitution of the pure-bred of at least fairly good individuality and breeding. The greatest amount of good in this direction can be worked among the dairy herds of the Province, because it has been ascertained by survey that there is a greater percentage of scrub or grade bulls among dairy herds than among beef herds. This may be due in part to the fact that many herds that are classed as dairy herds because they are producing milk for sale, whereas they are really no more dairy than beef, being made up wholly of animals of nondescript breeding and carrying just as much beef as dairy blood. Nevertheless, it is perfectly true that in many dairy herds in some of our best dairy districts where milk is produced for market in large quantities and where dairying is a specialty on the farm, the herd sire, or the neighbor's bull as the case may be, is kept merely to get the cows in calf, the calves being slaughtered for veal in some instances and new cows secured by purchase when some members of the herd must be turned off. It is difficult to believe that this method of dairying is in the long run the most profitable for the dairyman, although it does eliminate for him the troubles and the difficulties of breeding.

The man who is constantly striving to improve his herd or the man who buys in animals and who does not set a high standard for his purchases would be much better off in the course of a few years if he were to institute a program of grading-up, which can be started at any place in the development of the herd and can be carried on at comparatively little annual expense. Not many commercial dairy herds are composed altogether of pure-breds, unless the owner is in the pure-bred business as well as the milk business. Generally speaking they are regarded as two separate businesses and the recognized breeder of pure-breds is seldom in the forefront as a milk producer. Of course, there is always some surplus for sale but in his case the sale of milk is second in importance to the sale of young stock, which often require a good proportion of the milk produced by the mature cows in order to keep them in good saleable condition. The commercial milk producer, instead of keeping cows as breeding animals, often keeps them as machines for the manufacture of milk, which may become the principal saleable product of the farm. A cow needs no less a milk producer because she is a breeder, however, and on most farms it would undoubtedly pay to see that the cow gets in calf to a good bull and to regularly grade up the herd for improved milk production.

It does not stand to reason that any man would not want to improve his herd and that by the most economical means. Under certain circumstances, where a dairyman is specializing very highly in milk production, it might pay him to keep only mature milking cows, because then if he was a good farmer also he could stock the farm to its maximum with revenue producing animals. No young dairy stock would be kept to consume part of the feed grown; and the fertility of the farm would be kept up by the purchase of additional concentrated feed. Seldom, however, does this pay, especially where land is comparatively cheap and labor comparatively dear. The logical plan for the average dairy farm seems to be the breeding method whereby the herd is largely maintained by the addition from time to time, of the best of the young stuff bred on the farm. This involves the building up of a good grade herd or the establishment of a pure-bred herd and the latter, as we have already said, is not practical in many cases except after a number of years.

In any plan of grading up, the herd sire is the pivotal point so far as breeding is concerned, because if only a very few females are bought in, any improvement that is brought about must be secured through the agency of the bull that is used. Hence we are able to appreciate the significance of the scrub bull campaign, which, if taken advantage of by farmers generally, will, beyond all doubt, have a very salutary effect on the dairy industry. The skillful breeder is the man who realizes the importance of the sire that is used and it is not too much to say that no man can be successful who will not do this. The most expensive economy in dairying is the use of a poor bull because he is cheap. The introduction of his blood into the herd, if the latter be anyway good, will undoubtedly cost more in the long run than two or three times the cost of the bull. This does not only apply to the herd for which a herd sire is kept on the farm, but it is also true and with equal effect of the smaller herd, the owner of which does not deem it profitable to keep a bull. One of the most pernicious and harmful ideas commonly met with throughout the country is the idea that one or two dollars is enough to pay for the service of a bull. One can buy the service of a bull in exactly the same way as it is possible to buy anything else and you seldom get more than you pay for. Poor bulls are always priced at a poor price.

In selecting a bull for the herd, if it is deemed necessary to buy one, he should always be a pure bred. Now, there are good and poor pure-breds just the same as anything else, but get a pure-bred. Each pure-bred of live stock has been bred for many generations, usually for some specific purpose. It is easy to understand that a pure-bred bull of any breed is far more capable

of transmitting the characteristics of that breed than a bull of grade or nondescript breeding, else why the need of breeding at all. We know that in a general way like begets like and although there are many instances where this rule does not apparently work out exactly, it will always be found that in such cases like was not bred to like, but to something slightly different. There are so many characters in the make up of a dairy animal that it is absolutely unsafe to think that because a bull looks like a Holstein or a Jersey or an Ayrshire that he will reproduce the breed just the same as if he were a pure-bred. He may reproduce color and size, but not milk or fat production. He may have a splendid constitution, but fail to transmit capacity. Every farmer knows this, but many forget it when they are buying a bull and the result is a grade herd sire because he was cheap.

When buying a pure-bred do not buy one regardless of breed. Select the breed that is most suited to the herd and to the district. One of the most unfortunate mistakes that is sometimes made is to buy a pure-bred of one breed to head a grade herd of another breed. Each breed may be good, but to mix them up is to defeat the very purpose for which the pure-bred is being purchased, because the condition of mixed breeding is merely intensified by the new sire. Dairy cows have been bred for many years to produce several times the quantity of milk that their ancestors produced, but the results of 100 years of breeding are easily lost. This point is well worth writing down mentally in red ink.

One must not only select a pure-bred of the right breed, but the bull must be better bred than the cows and he must be prepotent to give results. There are good and poor pure-breds and some will sell for \$10,000, while others can be bought for \$75. The \$75-bull may not carry milking qualities that are any better than those carried by the good grade cows, but he is more apt to reproduce them in his offspring. On the other hand no bull is worth anything like \$10,000 that does not only carry the milking qualities but is also able to transmit them to his offspring. The good bull is good because of his ability to transmit his good qualities. Thus it becomes necessary to study the ancestry of the bull we are buying so that we will be able to more easily select one that will be a good investment.

When we begin to study the breeding of a bull we are soon able to appreciate the value of milk records. The pure-bred cow and bull are known by the ability of their offspring to perform, while the cow is known also by her own ability to make records. Thus, when we look at the pedigree of the bull we want to know what the record of the dam was and also what her daughters have done. We are, however, particularly anxious to know what the daughters of the sire have done in the way of milk production, in order to form an idea of what milking qualities his sons should carry. Perhaps the sire has some proven sons, that is to say, bulls that have sired daughters with good enough records to get them into the Record of Performance. If this is so and if the records of the daughters are good ones it will be evident that the sire had transmitted his prepotency to his sons and that the brother of these sons that we are looking at and are contemplating purchasing, should be a good breeder. One of the chief points to remember is that practically nothing can be determined from the looks of the animal as to how he will transmit his dairy qualities. One can, of course, tell to a considerable extent from appearance whether or not a bull is of a good dairy type and considerable attention must be paid to conformation, constitution, and such evidences of dairy qualities as may be gathered from a physical examination.

Wherever possible it is always wise to get a bull that is already tested, that is to say, one that has already sired daughters of proven merit. There is, so far as we know, no particular age at which a bull should be bought. If a young bull is purchased one is seldom or never sure that he will be a good breeder. On the other hand, if a proven sire is secured, the fact that he is proven will add materially to the price he will bring. In the case of an old bull there is, of course, the danger of introducing contagious abortion into the herd and no precautions can be too great to take against this evil. The safest can be too precautions in the purchase of a herd sire are general precautions in the purchase of an animal to keep one's eyes open and to look all around a bull before buying him, but almost any pure-bred will be better than the one or two dollar neighborhood bull.

**Government-Iced Cars for Butter.**

We are informed by the C. P. R. Division Freight Agent for Ontario that commencing May 18, and until further notice, an iced refrigerator car service will be established for the carriage of butter only to Toronto and Montreal; also shipments for export forwarded via Montreal or Quebec, the car to arrive at Montreal Saturday a.m. so that the contents may be delivered Saturday morning. Cheese and other dairy products will not be accepted for shipment in the iced car. Agents will be able to inform shippers of the time the train will pass, and current less-than-carload tariff rates will apply without any charge for icing. There will be four of these Government-iced cars weekly. The first car of these Government-iced cars Tuesday, and will leave London Wednesday morning and Toronto Thursday morning. The second car will start from Goderich, beginning May 25, and will leave every Wednesday. The third car starts from Owen Sound every Wednesday and contents will be transferred at Toronto to the car from Windsor. The fourth car starts from Teeswater every Wednesday.

**Oppose Canadian Holsteins Going to England.**

Our English correspondent sends us an account of a meeting which a deputation from the Royal Agricultural Society of England, the Central Chamber of Agriculture, the British Dairy Farmers' Association, the National Cattle Breeders' Association, and the National Farmers' Union, had with Lord Lee, of Fareham, British Minister of Agriculture, on April 19. The Yorkshire Post, of April 28, reports this meeting in part as follows:

"Lord Crewe, chairman of the Central Chamber of Agriculture, who introduced the deputation, said the main objection of farmers to the importation was the risk of the introduction of pleuro-pneumonia and foot and mouth disease. This country was in the main an exporting country of the finest breeds, and if it were to remain so the general isolation of our herds must be maintained. Therefore the farming community asked the Minister to suspend for an indefinite time all further importations of cattle of any sort or kind.

"Lord Lee of Fareham, in reply, said the decision of the Ministry to allow the importation of these animals was within the letter and the spirit of the Act, on the ground that the circumstances were exceptional, and that the animals were of a 'rare and special kind,' and that it would be beneficial to the Holstein herds of the country if such animals could be introduced. It had been suggested that the encouragement of the Friesian breed in this country might lead to the deterioration of our milk standards. One of the conditions, however, that the British Friesian Society had accepted with regard to these cattle was that they should be the progeny of cows not only with a certified milk record of 2,000 gallons, but with a butter-fat record of not less than 3.5 per cent. The permission to import which was given officially by Lord Ernle last year could not in fairness be withdrawn, and, indeed, under the conditions imposed, withdrawal was quite unnecessary. The Government had no intention of admitting store cattle from anywhere, and in no case could such importation take place without fresh legislation. There had never been a case of foot-and-mouth disease in Canada, and to that extent, therefore, the danger of the importation of disease from that country must be regarded as infinitesimal. The Ministry accepted to the full the demand made by Lord Crewe in the House of Lords, that permission to import should be given only very sparingly, and under the most rigid precautions as regards safety."

**To Tighten Up Advanced Registry Rules.**

At the coming annual meeting of the Holstein-Friesian Association of America, the following resolution is proposed, dealing with the Advanced Registry rules. It will be noticed that this proposal is radical and its fate will be watched with interest.

"(1) The rules of Advanced Registry be changed to prohibit the milking of cows on official test for either short- or long-time test more than three times in twenty-four hours except in case a cow on test gives ninety pounds of milk in three milkings in twenty-four hours. It may then be permissible for the cow to be milked four times in twenty-four hours in so long as the cow produces one-hundred pounds of milk or more for each twenty-four hours but as soon as she drops to below one-hundred pounds of milk in twenty-four hours, she shall again go back to three times milking in twenty-four hours.

"(2) That the rules for Advanced Registry for long-time records shall be changed to eliminate all classes and periods except one period for nine months, 275 days; that the cow making a record for this period must have a fully developed calf within fifteen months from her date of freshening and that for every day she carried her calf over twelve months her record shall be penalized and reduced an amount that will in effect make her record practically equal to a cow that had calved within twelve months. And, the Superintendent of Advanced Registry is hereby instructed to work out a table of reduction or penalties to be subtracted from the record of a cow calving after twelve months from her last freshening but still calving inside of fifteen months. In all cases the record shall be 275 days from the time the cow was started on the record.

"(3) That the rules of Advanced Registry be changed governing short-time records so that the period of a short time record shall be ten days instead of seven and that no records for a short-time period be made except ten-day records.

"(4) To discourage the excessive fitting and the resulting high percentage of fat test that the rules governing both long- and short-time test shall be changed so that no cow shall be credited with an average per cent. of over 4 1/2% on short-time test or over 4% on long-time test for the total amount of milk that the cow produces in her test period.

"In other words, if a cow on short-time test produced 500 pounds of milk on which 500 pounds of milk the average fat test due to excessive fitting was 6% or 30 pounds of butter-fat, this cow for record purposes would only be credited with 4 1/2% as an average fat test for the 500 pounds of milk or 22 1/2 pounds of butter-fat instead of 30 pounds of butter-fat as she would now be credited with under the present rules."

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be fed three times a-day feedings, are used, but at no time or 18 pounds daily. In this amount, it is in the form of

**Dairy Herd.**

Officials of the U. S. will bear repeating cow testing habit in Canada. This is why poor dairy herd, particularly is needed, when is scarce. Tabulation records gathered of Agriculture from a period of four butter-fat production is the income over \$34; that is, a gain production gave an cost of feed. The income over cost of \$118, the next to increased from 150 of feed advanced production doubled three times. When from 150 pounds to income over cost of almost five times as

only cost of feed is 50 pounds of butter-me over cost of feed tion was 100 pounds. ment of Agriculture, about the same for tion. The cost of the more productive it was much lower ed income, however, t to better feeding, ter cows."

**Holsteins.**

Official tests of 173 eived and accepted the mature class, 50 e recorded, headed ess Posch Albino, 31 lbs. of butter 17 lbs. milk. Next osa Lee Plus De 31.38 lbs. of butter 5.5 lbs. of milk. five-year-old cow, hadeland Faforit, hird, with 31.07 butter from 663.9 ilk, while in fourth Burke Bos De Kol, 2 lbs. of butter lbs. of milk. In four-year-old class twelve contestants s, headed by Lady Van Dyke, with of butter from of milk. Fifteen ur-year-olds are with Pontiac Segis Prescott leading, 9 lbs of butter 9 lbs. milk. Next es Madam Pauline h 30.52 lbs. butter 1 lbs. milk. Segis Echo leads twelve ree-year-olds with butter from 536.6 ilk, while next to es Segis Alcartra h 29.60 lbs. butter 5 lbs. milk. In the ree-year-old class Roycroft Mildred 519.7 lbs. of milk, owing with .05 lbs. There were also e led by Pontiac butter from 542.9 o-year-olds are led ercup, with 28.86 This is probably

port. Friesian cows for of Milner to have bs. of fat, or 996.25 ears. R. K. Bell, of milk and 746 while a third cow, 205 lbs. of milk butter. The latter experimental Farms



### Salt, Shade and Water for the Cows

"What are those small boxes for on the other side of the water bowls?" we asked a Russell Co. dairyman recently as we walked through the stable looking at a fine herd of dairy cows. "Oh, those are salt boxes" he replied. "We keep them full all the time and it is surprising how much they will take." There was one box to each two cows and each box would hold about two double handfuls. There were twenty-nine cows in the stable beside the horses and all got salt, although the cows took far more than the horses. At the time of our visit the boxes were empty, but our informant seemed so much in earnest about the value of salt for the cattle that we asked him why there was no salt before the cows then. We were told that the last of the salt had been used the day previous, but that some would be out from town by noon. On further inquiry we were told that the cows dropped in milk right away when they did not have any salt and that the owner could generally tell when he weighed the milk if they had enough salt, whether he had done the milking himself or not. In the present instance the cows had dropped in yield the evening previous and that morning as a direct result of the lack of salt.

We were told that all of the stock consumed about 140 pounds per week most of which was taken by the cows, but this seemed to us like quite a lot. Extensive trials made at Wisconsin seemed to show that about one ounce of salt per day per 1,000 pounds liveweight with an additional quantity amounting to about one ounce for every 30 pounds of milk produced was sufficient to supply what the animal needed, but at this rate the herd mentioned above would require only about 50 pounds per week. It is true, of course, that the amount of salt required depends largely upon the character of the feed and the salt content of the feeds used. This herd was very well kept and was fed largely upon purchased feeds even to the roughage so that although we did not inquire closely it is probable that concentrates were fed liberally, as the milk was being produced for the city trade.

Salt is particularly necessary for all animals consuming large quantities of vegetable feeds but carnivorous animals or human beings who eat a good deal of meat do not require so much of it. The reason that animals living largely on vegetable matter require so much more salt is stated to be because along with this kind of feed a great deal of potassium is taken into the system. This potassium is excreted through the kidneys, but while in the body, some chemical action takes place between it and sodium chloride, or common salt, with the result that a good deal of salt is excreted along with the potassium. This leaves the body short of salt and results in the well-known craving for salt that is often seen in animals. Thus common salt is needed to help expel the comparatively large amount of potassium taken in with feeds of a vegetable character.

At the Wisconsin Station, Babcock kept cows in milk without salt for varying periods up to one year, but did not find that the composition or quantity of the milk was affected by the lack of it for short periods. In this respect he differed markedly from the experience of the dairyman to whom we have already referred. It was found at Wisconsin, however, that cows kept without salt showed a strong craving for it after two or three weeks, but that they quieted down and gradually changed to a condition wherein they began to lose their vitality. Their coats became roughened; they got thinner and finally broke down completely. In most cases they would recover their normal condition if salt was given to them again in sufficient quantities. Some feeders prefer to throw the salt on the feed, while others, mentioned above, like to have it before the cows all the time. Where this is done rock salt is often used and the cows can lick a lump of salt until they get what they want. Salt is just as necessary when the cows are on pasture as when they are in the stable. A good sized lump of rock salt can be left in one corner of the pasture field or they can be given their salt when brought to the barn for milking and for feeding.

Plenty of good, fresh, clean water is just as essential as salt for the dairy cow. Any animal requires a large quantity of water to maintain the body processes and most human beings take far too little water for their own health, but the dairy cow requires infinitely more on account of the large amount of roughage she consumes and the milk she produces. Milk is mostly water and although the cow can often get material from her own body to make the solids of milk when she is not being fed heavily enough, it is absolutely impossible for her to get enough water any other way than by drinking it. Water, therefore, aside from its value to the body of the cow, is absolutely essential to milk production. Where a special effort is made to produce milk in quantity, running water in the stable will undoubtedly pay if the experience of practical dairymen is of any value. So long as the cows get all the water they need it does not make much difference how it is supplied, although the most convenient method is undoubtedly by means of water bowls or troughs in front of the cows. During the summer pure water in the pasture is essential and it should be as convenient as possible. If it is impossible to have water in the pasture at all times, care should be taken that the cows have plenty of opportunity to come to the barn for it.

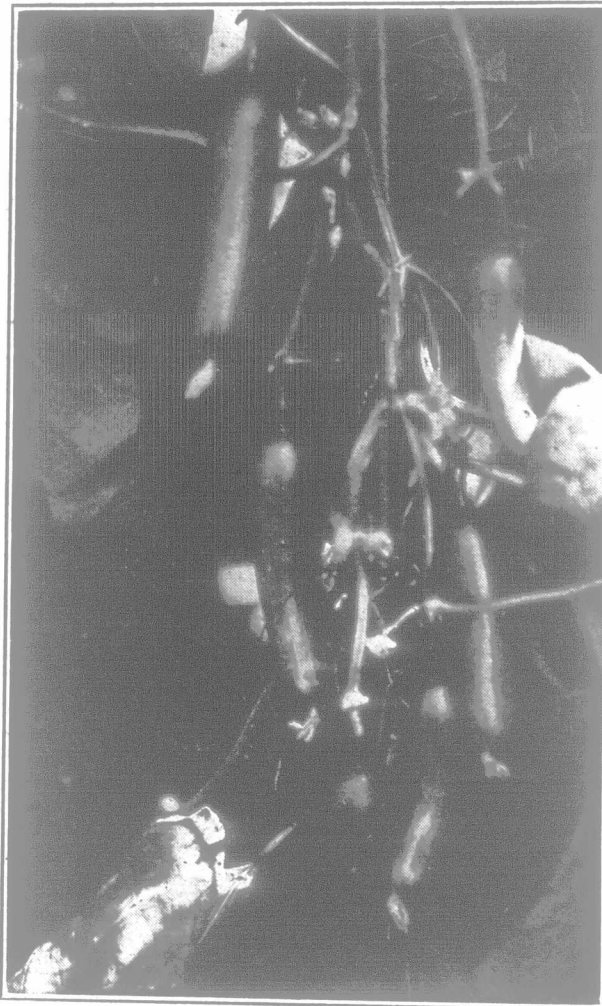
Shade also is essential in the pasture field. Every farmer knows that when the hot weather and the flies are both bad at the same time the cows are bound to go down in the amount of milk they give. Spraying with kerosene will do a great deal to lessen the trouble from flies and shade will give a herd a chance to get out of the hot sun. It is a good idea to have a lot of shade trees and

the teats of the cows will get sunburned in which case the cows should be brought into the stable unless there is plenty of shade available. The cow is a living organism carrying the most delicate machinery for the manufacture of milk and it never pays to neglect precautionary measures that will tend to keep the cow in a normal condition when she can do her best work. Plenty of shade in the pasture will allow the animals to get a good feed. After they are milked in the morning and then lie down comfortably and chew their cuds until ready for another feed of grass or clover. Attention to such matters as salt, shade and fresh water will mean that the dairyman will get more economical results from feed and labor and this is necessary in order to meet the present high cost of production.

## HORTICULTURE.

### Some Observations on the Horticultural Experiment Station at Vineland.

It is not too much to say that perhaps the one Government institution in the Province of Ontario which holds a greater interest for the practical and commercial horticulturist whether he be engaged in commercial fruit growing or vegetable gardening, is the Horticultural Experiment Station at Vineland. This institution was established in 1906, largely through the instrumentality of the late M. F. Rittenhouse, Chicago, who presented a large part of the land that now constitutes the station proper, to the Government. For the next seven years it was next to impossible to accomplish anything of very great value to the practical grower, for the reason that to develop a station of this kind requires a very great deal of preliminary work, that is not always appreciated by those who are not actively engaged in



A Splendid Growing Crop of Indoor Cucumbers.

Growing in the greenhouse of the Horticultural Experiment Station, Vineland. This crop is developing without artificial fertilization and is seedless. Very promising results have been secured from this breeding work, which was begun about 1912.

experimentation. The land in the first place had to be cleared, some kind of a working policy developed for the guidance of future operations and the land layed off in blocks and planted to the different kinds of fruits. Naturally, the matter of variety testing was one of the first things undertaken and from the fact that there are at the present time over 800 varieties of all kinds of fruits now under test at the station, one may gather that to lay these orchards out, plant the trees and take note annually of the behavior of the different sorts, requires an immense amount of work in itself without any hope of practical reward until bearing age has been reached and several crops secured. Buildings, of course, had to be erected and for an institution of this character where both labor and equipment are necessary in greater degree than on the average farm, building operations require much time and interfere markedly with other work of the station.

Naturally, also, at a station established primarily for research and experimental purposes in horticulture, the question of variety improvement tends to occupy first place. The variety is really the basis of either

fruit growing or vegetable gardening, next to the soil itself; and the securing of suitable varieties of all fruits and vegetables for all purposes, entails very extensive breeding operations if results are to be secured in any reasonable length of time. Many years are necessary before even the first fruits can be grown as a result of the original breeding work and from the fact that a large number of seedlings must be grown to get even one worthy new variety, those that reach the fruiting age must be further tested side by side for some years before the commercial grower can be given new varieties with any degree of assurance that they will be of practical value and superior to those already in use. It is also a fact that much land is needed to grow breeding material, especially for the tree fruits as the seedlings increase in size and must be planted farther apart. These and other factors tend to delay the time when the station may hope to stand out as offering immediate practical advantages to the commercial grower and to contribute in any appreciable degree to the volume or quality of the horticultural crops grown in the Province.

It may fairly be said that the first seven years were required to get this basic work started and fairly going and that 1914 had arrived before Vineland Station had become fairly organized to do work of more immediate practical importance. Even before that time, but to a much greater extent since, certain cultural experiments had been started, until, for lack of sufficient land, the development of the station was more or less held up until about three years later when the original 90 acres was supplemented by the acquisition by rental and purchase of an additional 57 acres. Incidentally, it is unfortunately necessary to observe here that until the latter acquisition was made there was really but little land on the station that was really suited to the culture of the tender fruits for the development of which the station is considered by many growers in the Niagara District to have been primarily established. The original choice of the site was, it must be admitted, unfortunate in this respect, in as much as the soil is for the most part heavy and lumpy and very difficult to work, as contrasted with the sandy loam that characterizes the soils of most of the good fruit farms of the surrounding district as well as of the Niagara District as a whole. Of the whole range of fruits planted on the station grounds from apples to strawberries the plum seems to be about the only fruit that does at all well on this soil. The additional land that has been secured is, we believe, of the proper type and will not only make it possible to secure the optimum results from the work done, but will make it possible to do this work much more economically. However, we present this matter merely as a factor in the development of the Station and not as an argument in depreciation of the Station itself. The mistake was made and there seems no practical way of eliminating it.

We have already referred to the fact that the growers of the Niagara District believe more or less generally that the Horticultural Experiment Station was established primarily for the development of the tender fruit industry in the Province and particularly in the district bordering on Lake Ontario from Toronto to Niagara Falls. Such does not seem to have been the attitude of the Government, with the result that apples, for instance, have been given a great deal more attention at Vineland than would be warranted by the extent of this crop in the so-called tender fruit districts. There is no doubt of the fact that the apple crop is easily the most important fruit crop in the Province; nor is there any doubt of the fact that the Vineland Station is the only Government institution devoted to the development of Agriculture, that is equipped and capable of doing the necessary work in connection with the apple industry. We are of the opinion that the attitude of the Government is the correct one and that it would be exceedingly unfortunate, at least until such time as other and more distinctly apple stations may be established, if the greatest factor in the fruit industry of the Province were to be relegated to the care of other and less suitable institutions. It must be remembered that the problems of the apple grower are the major problems of the Ontario fruit industry and that this crop furnishes the bulk of the monetary return to the Province from fruit production. This is not to say that a fruit station in the tender fruit district is not necessary because the apple crop is not prominent there, for we are convinced that the tender fruits and the small fruits are capable of great development in Ontario, especially the latter to which there has been too little attention paid in the past. The small fruits are among the hardiest of our fruits and are thus able to succeed in parts of the Province where the more exacting tender sorts would fail immediately. In addition to the tender and small fruits there is the vegetable crop which is of equal importance to the whole of the fruit crop and for the development of which similar soils, climate and general conditions are required to those that will serve best the development of tender and small fruits. Vegetable work at Vineland has without doubt been entirely inadequate so far, but the character of the soil on the original farm has been quite unsuited for really efficient work with vegetables, with the result that irrigation work, for instance, has had to be to some extent abandoned until such time as it can be commenced on the newly acquired acreage. The difficulties confronting the station at the present time are not particularly attributable to the men in charge, who are doing their best under a combination of circumstances and more or less indifferent co-operation from both Government and growers, of whom we shall say more later.

It seems to be a moot point now as to whether the Station will be retained by the Province or handed over

to the Dominion absorbed into the System. To a station serious mistakes now arrived breeding, showing of Agriculture for this as well as the fact that the matter of to be secured economical results by that institution. This is the logical work in plant its object the exercise of so the fact that though highly actually, profit a much imp to the comm time the art of al work of th look upon ba which is prob very much. ask that suc himself with results on all can be obtain which is par way. The s closely do th away from t reach provin detail at each do not inquir men who are less interfere Province. F placed as far wisest plan hands of the of detailed e for this is n but because to get \$50,0 would be to the results w knoweth the

Practical might, we be for the same would no ha available a vo if solved, wo and the Dom and all othe of production province rat so understood growers are o to look to t We are of th Vineland Ex to the worki for the grow station for pu by the Feder entity from growers woul

One of th the fact that men do not outstanding should get o possible occa their experie should desire some knowle at the Statio it costs the P institution, c little more investment There has be that the gro men on the S and who cou The annual were properl

S There is yard that is eggs for ma first there s the flock an and kill all l may be so v but under n with the he for market f for this. H season, but months wh



to the Dominion Government to be incorporated and absorbed into the vast Dominion Experimental Farms System. To completely waive the rights of the Province to a station of this kind would, we believe, be a very serious mistake, but we believe also that the time has now arrived when the work of plant improvement, or breeding, should be handed over to the Federal Department of Agriculture. There are three principal reasons for this as we view the matter. The first arises out of the fact that the production of new and better varieties is a matter of distinctly national import and if results are to be secured for the country as a whole in the most economical manner, the work should be undertaken by that institution which has the national good for its object. This is distinctly the field of the Federal Government and the system of Dominion Experimental Farms is the logical system to which should be attached all work in plant improvement, or breeding, which has for its object the creation of new and better varieties by the exercise of scientific principles. The second reason is the fact that the work of plant breeding is work that though highly necessary, is only potentially rather than actually, profitable to the grower. The availability of a much improved variety of peaches means nothing to the commercial grower until he plants it, from which time the art of the grower carries forward the fundamental work of the scientist. The average grower seems to look upon basic scientific work such as this as something which is probably necessary, but does not concern him very much. The more progressive grower will often ask that such work be done, but he does not concern himself with the way it is done. What he wants is results on all the phases of his business as fast as they can be obtained, and this brings us to the third reason which is partly political although not so in a partisan way. The smaller the political organization the more closely do the voters inquire into its affairs. As we get away from the school section and the township and reach provincial and federal affairs we lose more of the detail at each stage. The business gets bigger and we do not inquire into it so closely, with the result that the men who are doing the work of the Dominion experience less interference than do those doing the work of the Province. For this reason plant breeding should be placed as far away from the grower as possible. The wisest plan would seem to be to place this work in the hands of the Government from whom the least amount of detailed explanation will be expected. The reason for this is not because the work amounts to so little, but because it amounts to so much. It will be easier to get \$50,000 from the Dominion for this work than it would be to get \$10,000 from the Province, because the results will only come when they arrive and no man knoweth the hour.

Practically all purely research work in Horticulture might, we believe, be also undertaken by the Dominion for the same reasons. It is true that at present they would not have a great deal to take over, but there is available a very wide selection of abstract problems that, if solved, would greatly benefit the grower, the Province and the Dominion. Cultural work on the other hand, and all other work directly connected with the work of production, comes decidedly within the domain of the province rather than of the Dominion as we believe this is so understood. Production problems are the ones that the growers are directly interested in and they have a right to look to the provincial authorities for their solution. We are of the opinion that all of the facilities of the Vineland Experiment Station could well be devoted to the working out of cultural and marketing problems for the grower, while, if thought desirable, a separate station for purposes of plant breeding could be purchased by the Federal Department and operated as a distinct entity from the Vineland institution, to which the growers would look for a solution of their problems.

One of the chief difficulties at the present time is the fact that the growers and the experiment station men do not know each other well enough. This is an outstanding mistake. The Director and his assistants should get out among the growers on any and every possible occasion. Similarly the growers should visit their experiment station so that if at any time they should desire to say anything about it they might have some knowledge of the facts. An extension service at the Station is badly needed and if, as we understand, it costs the Province about \$40,000 per year to carry the institution, double the results could be secured if a little more money were advanced to safeguard this investment by providing an adequate extension service. There has been good work already done at the Station that the growers do not know of. There are capable men on the Station staff whom the growers do not know and who could offer valuable assistance in many cases. The annual cost is by no means too much if the results were properly taken to the people.

## POULTRY.

### Swat the Rooster Now.

There is nothing that can now be done in the poultry yard that is nearly so important in the production of eggs for market as to "swat the rooster." After June first there should not be a single rooster running with the flock and it would be the part of wisdom to fatten and kill all but the very best of the males. One or two may be so valuable that it would not pay to kill them, but under no consideration should they be allowed to run with the hens. Infertile eggs only should be produced for market from now on and the rooster is not necessary for this. He may be indispensable during the hatching season, but afterwards and during the warm summer months when losses from bad eggs on all our markets

are severe, he becomes a distinct menace to the poultry industry. It has been estimated that seventeen per cent of all eggs reaching the wholesale markets have no commercial value, having been spoiled from one cause or another and that of this amount five per cent, is due directly to the fact that the eggs are fertile and that they contain partly developed chicks. This enormous quantity of spoiled eggs accumulates chiefly in the summer months and is a sufficient indictment of the rooster to warrant his immediate transfer to martyrdom. Remove him from interference in the production of good eggs and you remove the trouble arising from fertile eggs. The following are some of the arguments advanced by one authority in favor of infertile eggs for the market: They do not hatch; contain no germs to be developed; withstand heat; bear shipment well; are easily preserved; are slow to decay; best for cold storage; less costly than fertile eggs; male birds not required; and are produced just as abundantly as fertile eggs. The rooster in the flock from now on will do away with all these advantages.

In the summer of 1919, Canada had a poultry population amounting to 34,645, 238, of which probably at least 1,000,000 were mature roosters. Assuming that we still have the same poultry population there are at present on the farms of Canada about \$1,500,000 worth of roosters that should be swatted and made to realize their market value. If left with the flock for one month they will easily cost the country a quarter of a million dollars in the feed they consume and the market eggs they will be the means of spoiling. These figures are not absolute of course, but we have been doing a little figuring and have tried to be conservative; but even the endeavor of an honest person to figure here brings to light an enormous loss. Even half this loss per month would be an enormous price to pay just to hear the rooster crow on a summer morning. Every one is now urging the other fellow to help onward a campaign for production and thrift. Thrift in the poultry yard now means swatting the rooster.

The more or less general introduction of candling has shown up these severe losses from bad eggs in the summer months and all co-operative farmers' organizations that are marketing eggs in a wholesale way are finding it absolutely necessary to candle all eggs received. The dealer who buys eggs that are not candled knows that he must sustain a loss and pays the producer accordingly; he pays a price that will meet this shrinkage. Help put a better quality of eggs on our markets and thus realize better prices. Swat the rooster now.

## FARM BULLETIN.

### Raising the Standard.

EDITOR "THE FARMER'S ADVOCATE":

In consequence of narrow and shortsighted Civil Service policies in relation to the recognition of capable experts in the Canadian Federal Department of Agriculture, "The Farmer's Advocate" was compelled some time ago to enter an editorial protest in order that the labors of such men might be retained. There doubtless are retrenchments for frills and political sinecures that can and ought to be ruthlessly made but when Canada and a hungry continent call loudly for an augmented output of agricultural products, it does seem folly to cripple the energies of a department that has justified itself in the past by such achievements as marquis wheat, to cite a single instance, and which gives reasonably good promise of applying continued stimulus and development at the very source of production. Canada is not alone in being afflicted by a type of administrative astigmatism in relation to pioneering in agricultural research. Through the efforts of capable experts under the United States Department of Agriculture millions of actual dollars have been saved and added to the field and animal products of that country by such means as the introduction of Egyptian cotton, Kaffir and other grain sorghums and Durham wheat, and campaigns against Bole weevil, cattle tick, hog cholera and other plagues. The whole American appropriation for strictly agricultural work is said to be not much more than one quarter the saving each year on hog cholera alone. By cutting down funds, such work for the future is crippled and many of the best men are drafted from public service into private industries. A statement of twenty-five employees who left the department in about a year and a half shows that the positions they accepted pay them on an average nearly \$3,250 each per year more than they received from the Government. The head of a market bureau with 1,318 men under him and receiving \$4,500 per year entered a position as general manager of a fruit-grower's organization at \$20,000 per year. An expert in the office of farm management drawing \$3,500 went to an outside position at \$6,000 and another receiving \$2,500 went to a harvesting implement company at \$4,500. One man in the Bureau of Chemistry receiving \$3,000 went to a trade association at \$6,000. Another left to be the Eastern Representative of a Louisiana concern at \$10,000 and a \$3,700 expert joined a commercial enterprise also at \$10,000. A box inspector at \$4,800 and a woman expert in the chemistry bureau was given a position by a private concern in research work at \$10,000 per annum. Almost without exception these persons were loath to leave the Government service and many of them would have remained for much less increase than they received elsewhere but under existing conditions with the responsibilities to their families the difference in remuneration was so great that altruistic considerations had to give way. In the United States also thousands of persons have been abandoning the teaching profession

for the greater financial prizes offered in commercial undertaking. Now, there are reasons doubtless, why Governments or local boards of education cannot uniformly keep pace in the scale of salaries with purely moneymaking concerns, apart from the compensating permanence of employ and provisions for old age; but the day has arrived for a levelling up process and the application of some more equitable measuring stick to achievement than the dollar-accumulating gift. The world is groping towards a better ideal. Admiration of the millionaire is clearly on the wane and one has only to read the newspapers to discern as one of the signs of the times that the ethic of the Nazarene is making its way. "I am among you as one that serveth", a motto which might well be inscribed on every school blackboard in the land, over the entrance to every office and bank and factory and Legislative hall where it would shine as a reminder that there are some things more potent than "Round Robins" and strikes and dividends.

The encouragement of farming is something that deserves the commendation and active support of citizens generally. Reasons there are, as plain as the nose on a man's face, why it should be made attractive if its depleted ranks are to be adequately filled, as pointedly urged in your issue of May 6th. Though admittedly the country's fundamental industry with incidental advantages, the value of which are too readily forgotten, it has been carried on and in some respects will be under arduous conditions and with an amount of investment that merits by way of equivalent more liberal returns and greater leisure for the farm family. Governments are, therefore, in duty-bound to make conditions such as will equalize the emoluments of rural life compared with those of the town, on the principle of the whiffletree evener. As farmers we are urged to increase production. In all fairness we ask that our efforts be seconded by a corresponding growth of industrial output, else the rising price of mowers, shoes, sugar, groceries, fencing, roofing, hardware, and clothes will swallow up too great a proportion of our returns. As the man from Macedonia once said: "Come over and help us!" Nothing will do more to stabilize this country than popular and contented rural communities.

The new American Secretary of Agriculture at Washington, Edward T. Meredith, who combines a good knowledge of farming, business success and a sympathetic attitude toward labor, concedes the existence of wide and growing discontent among American farmers which is having the effect of curtailing effort and tilled acreage and increasing the grass land. Because of exceptional conditions the farmer did fairly well in 1918, but by 1919 the doubling increase of wages and of all the elements in his cost of production overlook and passed the increases in the price of farm products so that he did not make even a fair wage. Farming, observes Mr. Meredith, must be made remunerative in a way it has not been in the past, otherwise the country will face a most serious menace to its welfare. The cost of distribution must be simplified and lowered. To take out of products one half the price received for distribution is too much. It means that the farmer receives far too little of the total and the consumer pays too much. The farmer will do his share if met in a fair and co-operative spirit by the consuming public, by labor and the business world.

Middlesex Co. Ont.

ALPHA.

### St. Paul Wins King's Plate.

The King's Plate, Canada's oldest turf classic, was run at the Woodbine, Toronto, on Saturday, May 23, when St. Paul, a Gidding's entry, won by a lead of four lengths over his nearest rival.

Interest in the horse and turf, which was allowed to slumber somewhat during the war, has awakened with renewed vigor for never was such large attendance ever seen at the Woodbine on any previous occasion. Fourteen horses started in the fourth race, the King's Plate, and not until the corner was turned on to the home stretch did Romanelli, the jockey, bring St. Paul into the lead. He then finished four lengths ahead of Bugle March, with Primo coming third. Harry Giddings of Oakville, the breeder and owner of St. Paul, has had three previous successes at these classic events with the following horses: St. Bass in 1911, Hearts of Oak in 1913 and Beehive in 1914.

The Seagram entries, Gallant Kitty and Crown of Gold were heavily played favorites on Saturday last, but they finished fifth and seventh, respectively.

### Powder Factory Patrons Discuss June Price of Milk.

The association of patrons of milk powder factories in Western Ontario held a meeting in the office of the Ontario Department of Agriculture, Woodstock, on Thursday, May 20, for the purpose of discussing the price of milk for the month of June. There are fourteen local milk producers' associations interested in the milk powder market, and representatives of ten of them were present at the meeting, which was productive of much discussion. Considerable concern was expressed over the fact that the cheese market has lately been relatively more profitable as an outlet for milk than practically any market except the butter market, and it was felt that in all fairness the price for June milk should be higher than for May. At the same time there was no disposition to crowd their own market, the milk powder factories, and it was only after much discussion that it was decided to ask for a price of at least \$2.60 for 3.5 per cent. milk for the month of June. This request will be preferred through the Ontario Milk and Cream Producers' Association, and the decision was made with the complete unanimity of all present.



Toronto, Montreal, Buffalo, and Other Leading Markets

Week Ending May 20.

Receipts and Market Tops.

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

Table with columns for CATTLE, CALVES, HOGS, and SHEEP, showing Receipts and Top Price Good Steers/Lambs for various locations like Toronto, Montreal, Winnipeg, Calgary, and Edmonton.

Market Comments.

Toronto (Union Stock Yards.)

Cattle values received a slight setback on the earlier markets of the week, when trading was inclined to be a little slow with prices 40 cents to 50 cents per hundred lower on the heavier grades of cattle. Handy-weight steers and heifers depreciated to the extent of 25 cents per hundred. On Wednesday trading became more active, and earlier losses were partly recovered on that day. The market closed with a quiet undertone on Thursday. Total receipts for the week amounted to approximately sixty-eight hundred, and the offering was readily absorbed at prevailing values. Local abattoirs purchased liberally, and outside packers handled a few shipments, while graziers, encouraged by the warm weather, took advantage of the weakness in the market to stock up with grass cattle. Fairly-heavy shipments were made to country points last week. The quality was generally good and the supply of heavy cattle, fortunately, rather light, only a few, choice in quality, being on sale. One steer of 1,240 pounds sold on Wednesday at \$16 per hundred, a load of twenty head averaging 1,228 pounds sold on Monday at \$15.50; this price was duplicated in a few instances on Wednesday, and a load of twenty-three head averaging 1,200 pounds moved at \$15.40; most of the heavy cattle sold from \$14.25 to \$15.25. Steers of 1,000 pounds to 1,200 pounds had a satisfactory market although the heavy weights did not share equally with the lighter grades in the demand; representative sales in this class included eighteen head averaging 1,180 pounds at \$15; twenty-three head averaging 1,116 pounds at \$14.80, and twenty-one head averaging 1,073 pounds at \$14.75, and twenty-one head averaging 1,137 pounds at \$14.50, while nearly all the steers in these weights sold above \$14 per hundred. Handy-weight butcher grades weighing under 1,000 pounds had a good trade and suffered a depreciation in value not exceeding 25 cents per hundred. Cows and bulls had a ready sale and a few choice cows sold up to \$13.50 per hundred, with most of the good cows from \$11 to \$12.50 per hundred, and medium cows from \$9 to \$10.50. A few choice bulls sold at \$13, with good smooth bulls from \$11.50 to \$12.50, and heavy coarse bulls from \$9 to \$10.50. The stocker and feeder trade was quite active, and numerous loads of feeding steers were taken back to the country at prices ranging from \$12 to \$13 per hundred, with heavier weights and better quality from \$13 to \$13.50, and stocker cattle from \$10.50 to \$12 per hundred. Milch cows had a steady trade; very few of choice quality were on sale, and most of the transactions occurred at \$100 to \$130 per head, with good quality selling up to \$165 and common cows at \$80 to \$100. Calf receipts are decreasing. The calf market gained strength during the early part of the week, but was easier on Thursday's trading. A few calves sold at \$18, numerous sales were made at \$17, and the majority moved from \$14 to \$16.50; this represented an advance of \$2 over the close of the previous week. Part of the advance was lost on Thursday's market. The lamb and sheep trade is showing an easier tendency and while spring lambs sold as high as \$18 each, the

Table with columns for TORONTO and MONTREAL (Pt. St. Charles), showing CLASSIFICATION, No., Avg. Price, Price Range Bulk Sales, and Top Price for various categories like STEERS, HEIFERS, COWS, BULLS, CANNERS & CUTTERS, OXEN, CALVES, STOCKERS, FEEDERS, HOGS, LAMBS, and SHEEP.

undertone was weaker. Sheep and yearlings were 50 cents to \$1 per hundred off, sheep sold from \$15.50 down, and yearlings from \$15 to \$17.50. The hog trade was stronger on the earlier markets of the week, but easier toward the close. On Monday and Tuesday most of the hogs sold at \$20.50 fed and watered. On Wednesday and Thursday hogs sold within a range of \$20 to \$20.60 per hundred, local butchers making purchases at \$20.25, \$20.50 and \$20.60 per hundred, with the majority going to the packers at \$20 per hundred. F. o. b. hogs are selling \$1 per hundred below these quotations. The total receipts from January to May 13, inclusive, were: 108,077 cattle, 33,143 calves, 127,645 hogs and 16,750 sheep; compared with 115,188 cattle, 22,694 calves, 137,046 hogs and 27,362 sheep, received during the corresponding period of 1919. Montreal. While a few loads of cattle were sold at prices lower than those paid on the previous week, prices were generally steady with former quotations a profitable for choice cattle. The top price for the week was \$15.90, and was paid for a load of steers averaging 1,115 pounds, sold on Saturday. There were no heavy steers, choice steers, and heifers of medium weights from Western Canada and the Ontario market. Receipts from \$14.25 to \$15.25. Steers from the East, well-fatted, but of poor breeding, brought \$13.25 to \$13.75. Nearly all steers sold at \$11 or over. A few very thin heifers were sold from \$7 to \$8.50. Good heifers were weighed up with other stock of equal value. Fat cows weighing around 1,100 pounds sold up to \$12.50, but there were very few cows of that kind, and the majority of the good cows were sold at \$12 or under. Rather common strippers were sold from \$8.50 to \$9.50, and canners and cutters from \$5 to \$7. Most of the sales of good bulls were made from \$11 to \$12, with an odd sale up to \$13. There were a few carloads of bulls from the East and these sold in most cases at \$10.25; there was not many bulls sold under \$9. The market for veal calves was stronger and a number of sales were made from \$14.50 to \$15 per hundred. The general range for medium grades was \$11 to \$13. Common calves brought \$8 and up, and some 8% of culled calves were made as low as \$5. Inspectors are to be placed on the stock yards after the 25th of the month, and from that date will be seized upon any calf that has also been arranged to be sold in the market. There was no change in the market for sheep and lambs. Drovers report that sheep are in demand in the country and are selling at \$14.50 to \$17.50.

Under light receipts and a good demand from the local trade, the price of select hogs of fairly light weights advanced to \$21.50 off cars. Mixed lots containing an odd young sow, or hogs a little over weight, were sold around \$20.75. Any sows that were weighed out were disposed of at \$4 per hundred lower than the price of the lot they were shipped in. Stags were cut \$7 from the select prices. PT. ST. CHARLES.—The total receipts from January 1 to May 13, inclusive, were: 10,513 cattle, 25,707 calves, 21,845 hogs and 5,357 sheep; compared with 12,028 cattle, 27,741 calves, 25,007 hogs and 5,912 sheep, received during the corresponding period of 1919. EAST END.—The total receipts from January 1 to May 13, inclusive, were: 12,357 cattle, 22,252 calves, 14,741 hogs and 4,456 sheep; compared with 14,379 cattle, 19,333 calves, 13,739 hogs and 6,233 sheep, received during the corresponding period of 1919.

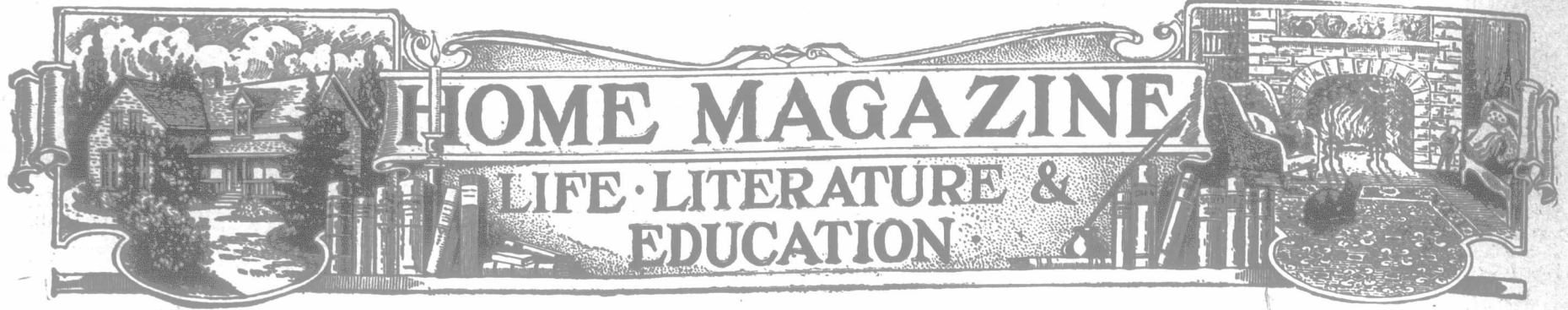
Cheese Markets. New York, State, whole milk, flats, specials, white and colored, 31c. to 32c.; State, whole milk, flats, current make, specials, white and colored, 28 1/2c. to 29c.; average run, 27c. to 28c.; St. Hyacinthe, Que., 28c.; Belleville, 28 1/2c.; Victoriaville, Que., 28 5/8c.; Cornwall, 29c.

Manitoba \$3.15; No. 3 C. W. \$1.14; No. 1.11; Manitoba \$1.76; No. 1.54; Ontario points, acco \$2 to \$2.01; No. 3 winter \$2.20 to \$2.21; No. 3 \$2.01; American No. 3 yellow \$1.40; Ontario nominal; acc \$1.40; Barley—No. 1 \$1.50; No. 2 \$1.25; No. 3 \$1.10; Hides, f. hides, flat c 22c. to 24c.; \$2; horse hie No. 1 sheep lambs, \$1.50 stock, 42c. t City Hide flats, 22c. veal kip, 25 \$8 to \$10. Tallow—rels, 15c. to rels, No. 1, to 17c. Butter—lower on b creamery p 60c. to 62c. to 60c. per per lb.; and lb. Eggs—E new-laid s wholesale; r 56c. per do. Cheese—old selling at 33c. per Poultry—keeping pr prices being per lb., ali milk-fed, p per lb., ali per lb., ali hens, from 37c.; hens, dressed, 35 40c.; dressed, 40c.; dressed, 40c.; dressed, 40c. Wholesa Apples—tically off t ments whic week selling Winesaps b Strawber and are sli Tomatoes back durin ceedingly h Asparagu was shipped prices are v slow. Beans—firming ten New cab materially on the mar Carrots—stationary, showing a Potatoes go higher; this season sold at ver









### The Ploughboy

EDWARD L. CARPENTER.

THE bluebirds sing so sweetly in the morning;

They are building a nest yonder in the hedgerow, where I pass at sunrise; and I think their song is sweeter than that else at any time of day.

I take care not to disturb them: they work as hard as anybody for a living.

And I think they know me now, they are so bold.

But they do not follow in the furrow, like the wagtails and robins.

It is pleasant then, in the morning: the air is so sweet,

And the smell of the earth—and I like the warm smell of the horses.

Jeannie goes in the furrow, and Rob on the fallow; they go very steady;

And when the ground is soft-like, it's good enough going, but when it's stiff it stretches your arms a bit:

Lord! it does make you sweat!

From *Towards Democracy*.

### "R. L. S."

"Tusitala," Twenty-five Years After.

RAYMOND KNISTER.

WHAT is the secret of this writer's charm? How can we define that unseizable quality of his character which gave him the power of winning the esteem and the affection, personal to a degree matched by only one or two writers of our literature, which followed him in his life to all the many corners of the earth which he successively pervaded, and which has continued with equal certainty to follow his personality as evinced in his work for the twenty-five years which have elapsed since his death? In one of his critical essays he remarks, in reference to writers in general, "It is not likely that posterity will fall in love with us, but not impossible that it may respect or sympathize; and so a man would rather leave behind him the portrait of his spirit than a portrait of his face, *figura animis magis quam corporis*. Of those who have thus survived themselves most completely, left a sort of personal seduction behind them in the world, and retained, after death, the art of making friends, Montaigne and Samuel Johnson certainly stand first." The fervent Stevensonian will at this point take exception to, or at least qualify his words: he is himself a third, and not least of the three, possessing this charm. For those with whom he met in life it almost universally exercised a potent attraction, even, in several cases, for those who were his public enemies. Certainly no other writer of the century won such practically unanimous regard from his fellow craftsmen, and from these, in his day emergent, whose fame flourishes in our own. The stream of magazine articles and books about, and editions of Stevenson has continued from the year in which *Treasure Island* was first published to the present, and nearly all breathe such combined affection for the man and admiration for the writer as are seldom conjoined, while of the dissenting few the majority confine themselves to attempts to pick to pieces his craftsmanship, without venturing to arraign the character of his personality. This can be well understood, for it is in his presentment of himself, if anywhere, that Stevenson's position is most inexpugnable: in the literature of personality his letters and the best of his essays stand alone. Thus we see the phenomenon of a writer who, were he living now, would not have been too old to write (and we can scarcely conceive of him as living and not writing), who might now, in less happy moments, have been, in his own words, "girded at by the clever lads in the reviews," occupying

the place of a writer of classics, both with the public and with critics.

But this anthem of eulogy, sincere as we can well believe it, has, at least as regards his temperament, done him wrong. With all his gaiety and irrepressible *joie de vivre* Stevenson was no unthinking Pollyanna; his was no gross, after-dinner optimism, the result of smoothly-operating gastronomic and financial machinery. He underwent a wholesome fit of the blues now and then, and was the stronger for it. "How the year slips by, Colvin,"—thus he writes to his friend—"and we walk in little cycles, and turn in little abortive spirals and come out again, hot and weary, to find the same view before us, the same hill barring the road. Only, bless God for it, we have still the same eye to see with, and if the scene be not altogether unsightly, we can enjoy it whether or no." In another letter: "You are quite right, our civilization is a hollow fraud. All the fun of life is lost by it; all it gains is that a larger number of persons can continue to be contemporaneously unhappy on the surface of the Globe. O, unhappy!—there is a big word and a false—continue to be not nearly—by about twenty per cent.—so happy as they might be: that would be nearer the mark." Yet I can remember but one expression of unrelieved pessimism in all his thirty odd volumes, though *The Master of Ballantrae* and *Markheim* among others, show that he gazed into the depths of life and saw more than his own reflection.

There was in his nature a fund of generous anger which leaped into blaze at the sight of any unnecessary pain or injustice of whatever sort; even, a friend remarks, a touch of Scotch "thrawnness." His own nickname for himself was "the Old Man Virulent," in allusion, it is explained, "to fits of uncontrollable anger to which he was often subject in youth: fits occasioned sometimes by instances of official stolidity or impertinence, or what he took for such, more often by acts savoring of cruelty, meanness, or injustice." On one occasion (it was during his life at Vaillima) two of his workmen were found to have shirked a piece of work assigned to them, and his reproof is thus described in his own words: "I administered my redoubtable tongue—it is really redoubtable—to these skulkers. I am a real employer of labor now, and have much of the ship captain when aroused." But he betrays his prevailing character a few sentences farther on by remarking that the men seemed not to have expected it. "There seems to be something in my appearance which suggests endless, bovine long-suffering." Again, writing this time to Henry James in reference to a dedication which he had made to a writer whose work had strongly attracted him, he says, "I thought Bourget was a friend of yours! And I thought the French were a polite race! He has received my dedication with a stately silence that has surprised me into apoplexy. Did I go and dedicate my book to the nasty alien, and the 'horrid Frenchman, and the Bloody Furriner? Well, I wouldn't do it again, and unless his case is susceptible of explanation you might perhaps tell him so over the walnuts and the wine, by way of speeding the gay hours. Sincerely, I thought my dedication worth a letter. . . . Do you know the story of the man who found a button in his hash and called the waiter? 'What do you call that?' says he. 'Well,' said the waiter, 'what d'you expect? Expect to find a gold watch and chain?' Heavenly apoplexy, is it not?" This turning aside from the wrathful thought is characteristic. It has yet to be learned that Stevenson was capable of retaining malice, unjustifiably, or at all; he was as wise as his own words in "*Virginibus Puerisque*": "*Is it still the same between us?*" Why, how can it be? It is eternally different, and yet you are

still the friend of my heart." In another place he writes: "Rightly looked upon, it is ourselves that we cannot forgive when we refuse forgiveness to our friend."

The quality of his spirit shows itself best in his attitude to his health, to use what is perhaps a pretentious term in his case. In the books published during his life-time there is one sole reference to this, the essay "*Ordered South*." "To me," he writes, "the medicine bottles on my chimney and the blood on my handkerchief are accidents; they do not color my view of life: and I should think myself a trifle and in bad taste if I introduced the world to these unimportant privacies." And we find one of his critics adjudging him, with his books as the basis, a "rosy-gilled athletico-aesthete," and remarking that his philosophy would not do for "those who are shut out from the exercise of any manly virtue save renunciation." The letters, naturally, tell a different tale. Here is an extract from one to George Meredith: "For fourteen years I have not had a day's real health. I have wakened sick and gone to bed weary; and I have done my work unflinchingly. I have written in bed, and written out of it, written in hemorrhages, written in sickness, written torn by coughing, written when my head swam for weakness; and for so long, it seems to me I have won my wager and recovered my glove." Yet in the face of these facts and of this realization, we find him referring to hemorrhage from the lungs as "his old friend Bluidy Jock," and in a letter dated from Hyeres, April 24, 1884, writing: "If you are in love with repose, here is your occasion: change with me. I am too blind to read, hence no reading; I am too weak to walk, hence no walking. I am not allowed to speak, hence no talking; but the great simplification has yet to be named; for if this goes on, I shall soon have nothing to eat—and hence, O Hallelujah! hence no eating." It is pleasant to remember that he lived to retain, as a result of his last despairing recourse, a trip to the South Seas, to attain to a measure of health undreamed of before, and to look back, rather smilingly than otherwise, on "the pallid brute that lived in Skerryvore like a weevil in a biscuit."

The most compelling and pervading mood of Stevenson was one of zest, the enjoyment of life in whatever form he found it. He was always a connoisseur of life, and never disenchanted from it, always giving sight and ear to "the beauty and terror . . . the winning music of the world." "God help us, it is a funny world! To see people skipping all round us, with their eyes sealed up with indifference, knowing nothing of the earth or man or woman, going automatically to offices and saying they are happy or unhappy from a sense of duty, I suppose, surely at least from no sense of happiness or unhappiness, unless perhaps they have a tooth that twinges. Is it not like a bad dream? Why don't they stamp their feet upon the ground and awake? There is the moon rising in the east, and there is a person with his heart broken and still glad and conscious of the world's glory up to the point of pain, and behold they know nothing of all this!" This feeling is expressed frequently, with greater finish, no less trenchantly, if less petulantly, in his books. The reader will at once call to mind passages in the essays, and the lines, not then, of course, calculated to convey irony, in *A Child's Garden of Verses*.

"The world is so full of a number of things  
I am sure we should all be as happy as kings."

Few persons seem to have enjoyed such a faculty for happiness, and in spite of circumstances which a world almost ap-

pear to embody a negation of the very existence of happiness, to have found so much of it. Perhaps the cause of this lies in his unwearied search for romance. "I have been after an adventure all my life, a pure dispassionate adventure, such as befel early and heroic voyagers." We find him, alone in the Cevennes, delighting to observe that, "to wash in one of God's rivers in the open air seems to me a sort of cheerful solemnity or semi-pagan act of worship. To dabble among dishes in a bedroom may make clean the body, but the imagination takes no share in such a cleansing. I went on with a light and peaceful heart, and sang songs to the spiritual ear as I advanced." Love of the sea and love of his art were his two great talismans to felicity. In much that he wrote, especially during his later years, the throbbing of the sea is an abidingly present overtone; no one had up to that time interpreted and described so well its moodiness "constant to change." "I will never leave the sea," he says; "it is only there that a true Briton lives; my poor grandfather, it is from him that I inherit the taste, I fancy, and he was round many islands in his day; but I, please God, shall beat him at that before the recall is sounded." In another letter is found the following: "This climate, these voyagings; these landfalls at dawn; new islands peeping from the morning bank; new forested harbors; new passing alarms of squalls and surf; new interests of gentle natives—the whole tale of my life is better to me than any poem."

Of the joy he found in his work expressions abound throughout the four volumes of his correspondence, and though I have already quoted so much, I cannot refrain from culling extracts from the letter announcing the beginning of *Treasure Island*, that tale of the joyous improbable, told in a limpid style. He had been writing "crawlers," his name for stories of a wierd tendency, such as *Thrawn Janet* and *The Body Snatcher* and others which he failed to complete, but he interrupts this work for new books. "If this don't fetch the kids, why they've gone rotten since my day. Will you be surprised to learn that it is about Buccaners, that it begins in the 'Admiral Benbow' public house on the Devon coast, that it's all about a map and a treasure and a mutiny, and a derelict ship, and a current, and a fine old Squire Trelawney (the real Tre, purged of literature and sin to suit the infant mind) and a doctor, and another doctor, and a sea cook with one leg, and a sea-song with the chorus 'Yo-ho-ho and a bottle of rum' (at the third ho you heave at the capstan bars) which is a real buccaneer's song only known to the crew of the late Captain Flint (died of rum at Key West, much regretted, friends will please accept this intimation); and lastly, would you be surprised to hear, in this connection, the name of *Routledge*? That's the kind of a man I am, blast your eyes. Two chapters have been written and tried on Lloyd with great success; the trouble is to work it off without oaths. Buccaners without oaths—bricks without straw. But youth and the fond parent have to be consulted. . . . A chapter a day I mean to do; they are short; and perhaps in a month *The Sea Cook* may to Routledge go, yo-ho-ho and a bottle of rum! . . . It's awful fun boy's stories; you just indulge the pleasure of your heart, that's all; no trouble, no strain. O sweet, O generous, O human toils. You would like my blind beggar in chapter III I believe; no writing, just drive along as the words come and the pen will scratch

R. L. S.,  
Author of *Boys' Stories*."

But despite this effervescence of high spirits, and the charm of manner which made itself felt even, to the effect of joyful service, by South-Sea Islanders,

so that it was a Samoan run, was a strain of himself at times in his actions pressed in the of the following may be forgiven any use until

"The man who fallen asleep in to be good in be, and fail, when we get a and when we e so; well hit!" young man to now I am col and in excellen So too I meant keep mounting I have been rep sea-level, and as I started, I am enterprise. O is not to succee in good spirits."

This sense of and in art ha finding clear e most wonderful *Triples*, and *F* is always a n looking men, ar small planet, in and not enduri years, we ar hopes are inacc term of hoping i of life." In res out clearly, tho form you that I author of *Bras* am merely be prepare to mak understand my and depth of no and O that I a shoulder throug early letter cont outburst: "O, v of my dreams, nor wander, no before its face, a until the pit rec essay on Thon

"To hear a str beautiful woma or a starry nig despair of his Lil This sentence i such a passage own words, "Th the despairer." to capturing an incommunicable unheard melodic the heard. He ward "inaccessi he, more than a mitted to attain to me that on depression duri due to a sense work, which ac submerged hims ters of *Wier of* of attainment ca unattainable.

As for Steven been written ab best service we speak for them has been spill in a tone of do style, than abou his writing, and in late years, a d not to be wonder is one so diffic style of the fir natural and grow what. Joseph mysterious, alm producing strikin possible of dete word of the high effect by but irremediable, th individual shoul and that time s if not the sour criterion. Truly and fleetness, th pears one of the world. Those w cause he confes apprentice, layi of his workshop, his style a direct art for artifice, those who hold



so that it was said that you never saw a Samoan run, except at Vailline, there was a strain of the old Scottish Covenanter about him which, though it manifested itself at times with abundant clearness in his actions and conversation, is expressed in a more modified form in some of the following of his maxims: "Acts may be forgiven, God Himself cannot forgive the hanger-back." "No man is any use until he has dared everything." "The man who forgets to be grateful has fallen asleep in life." "We are not meant to be good in this world, but to try to be, and fail, and keep on trying, and when we get a cake to say, 'Thank God,' and when we get a buffet, to say, 'Just so; well hit!'" "I meant when I was a young man to write a great poem: and now I am cobbling little prose articles and in excellent good spirits I thank you. So too I meant to lead a life that should keep mounting from the first; and though I have been repeatedly down again below sea-level, and am scarce higher than when I started, I am as keen as ever for that enterprise. Our business in this world is not to succeed, but to continue to fail, in good spirits."

This sense of the unattainable in life and in art haunts much of his work, finding clear expression in some of his most wonderful essays, *El Dorado*, *Aes Triplex*, and *Pulsis et Umbra*. "There is always a new horizon for onward-looking men, and although we dwell on a small planet, immersed in petty business and not enduring beyond a brief period of years, we are so constituted that our hopes are inaccessible, like stars, and the term of hoping is prolonged until the term of life." In respect to his art he speaks out clearly, though gayly: "I beg to inform you that I, Robert Louis Stevenson, author of *Brashiana* and other works, am merely beginning to commence to prepare to make a first start at trying to understand my profession. O the height and depth of novelty and worth in any art! and O that I am privileged to swim and shoulder through such oceans! etc." An early letter contains at its conclusion this outburst: "O, when shall I find the story of my dreams, that shall never halt, nor wander, nor step aside, but go ever before its face, and ever swifter and louder until the pit receives it, roaring?" In the essay on Thoreau we find the following: "To hear a strain of music, to see a beautiful woman, a river, a great city, or a starry night, is to make a man despair of his Lilliputian arts in language." This sentence is, however, a portion of such a passage as gives us to recall his own words, "There need be no despair for the despairer." Few have come nearer to capturing and expressing in terms "the incommunicable thrill of things," those unheard melodies which are sweeter than the heard. He yearned effectually toward "inaccessible El Dorado," though he, more than any one else was not permitted to attain to it, and it has seemed to me that one cause of his recurrent depression during his last months was due to a sense of having done his best work, which accordingly vanished as he submerged himself in the opening chapters of *Weir of Hermiston*, and in the act of attainment caught a new vision of the unattainable.

As for Stevenson's books, so much has been written about them that the critics' best service were, if possible, to let them speak for themselves. Perhaps more ink has been spilled in discussion, generally in a tone of despairing admiration, of his style, than about any other particular of his writing, and with only occasionally, in late years, a dissentient voice. This is not to be wondered at, though this faculty is one so difficult of true assessment—style of the first rank as seemingly so natural and growing a thing, so exemplifies what Joseph Conrad calls "that mysterious, almost miraculous, power of producing striking effects by means impossible of detection which is the last word of the highest art," and to miss that effect by but a hairs-breadth, is so irremediable, that it is not strange the individual should go grotesquely astray, and that time should be a concomitant if not the source of the only authentic criterion. Truly, for its beauty, vigor and fleetness, the style of Stevenson appears one of the minor wonders of the world. Those who find it less, and because he confessed his methods as an apprentice, laying bare the machinery of his workshop, even pretend to consider his style a directly derivative one, mistake art for artifice. To these people, and to those who hold that the style is not the

man, the best answer were the *Letters*; in these we find an unpolished, on occasion even a slovenly and ungrammatical style, yet who would say that they show us an essentially different Stevenson than the essays and stories do, the difference resulting from his having taken off his coat and collar, and donned a dressing-gown. In fine, his style is really a most unobtrusive one, abounding though it does in felicitous solecisms. Few seem to realize that it kept changing in accordance with the matter, and with the author's development. The flavor of, for instance, *Travels With a Donkey*, is not that of *Treasure Island*, any more than the style of *Virginibus Puerisque* is that of the essays in *Across the Plains*, nor yet, in this particular, is *The Master of Ballantrae*, surely an achievement in atmosphere to be compared only with that shown in *Esmond*. Had Stevenson been granted to complete the fragment *Weir of Hermiston* as its beginning demands, critics would be at no pains to designate his niche in literature. It would be near, but scarcely below, the creators of *Adam Bede* and *Henry Esmond*. As it is, his rich variety, and seeming facility of beautiful diction, toil-bought though it be, entitle him to the name Tennyson of prose. Through all his compact and sentiment wordmanship (he is a very D'Artagnan of words) there breathes the aroma of a splendid soul, one preoccupied not solely with art, but greatly with life, and with "a transcendently lovable part of it." "Vital—that's what I'm at, first: wholly vital, with a buoyancy of life. Then lyrical, if it may be and picturesque, always with an epic value of scenes, so that the figures remain in the mind's eye forever."

Waiting, a mere child, on a Highland jetty, for his father's boatmen; clinging to a floating tree in a river in France, on ship-board in the Hebrides, "restless and questing as a spaniel;" walking the Lothian road amid the east wind, in artistically bizarre garments and an almost Wertherish melancholy; marshalling his leader battalion for elaborately scientific campaigns in the attic at Bournemouth; crossing America in a nauseous immigrant train; cruising in the Pacific amid combined perils of hurricanes, a rotten main-mast, and the doubtful intentions of natives, taking an axe from the hands of a mad Samoan boy; preparing with gusto for a state of civil war on his island; addressing a concourse of Samoan chiefs who had done him the unprecedented honor of building for him with their own hands the Road of Loving Hearts, in gratitude for the freedom which he had obtained for them,—"in all these actions and attitudes savoring life with a smack, and regarding it with the eye of an artist, as though seeing everything for the first time, the spirit of Stevenson "has passed ineffaceably into happy legend," and still lives to persuade us that "there are always high and amusing lives to be lived."

### Artichokes vs Potatoes

The Jerusalem Artichoke is an admirable potato substitute, while the Globe Artichoke is the great salad plant, and is seldom met with except on the tables of the wealthy. There is no reason why any one with a garden spot should not serve this delicious vegetable on their tables!

The Jerusalem Artichoke needs rich potato ground for its growth. Plow deep and make the ground fine. Plant in May. Cut the tubers as you do potatoes for planting, allowing one or two eyes to a piece of tuber. Plant one or two feet apart in rows three feet apart and cover with a couple of inches of soil.

If the tubers you plant are small, and I have had excellent results with such, put 2 or 3 in a hill. Three bushels of tubers will plant an acre. Cultivate frequently and keep out weeds. Tubers will be ready for use in October.

When the plants are done blossoming it will do no harm to let the cattle eat off the tops, indeed it will help to dry out the tubers and facilitate the digging of them later. The plant stalks make excellent roughage, too, for stock, and if wanted for this the plants may be mowed down after blossoming and cured like hay.

One man, whom I knew and who is an enthusiast over artichokes for food, turns his hogs into his plot for an hour or two a day during the fall of the year, and so they do their own digging and grow fat and healthy doing it. A patch

left in the ground over winter makes some weeks of fine feeding for pigs in the spring at a time when they just need such a tonic. The constitution and vigor manifested in hogs so fed shows for itself the great value of the artichoke for food for stock. Artichokes require replanting each year. It is the only way to have a good, uniform crop.

The Globe Artichoke is for the table. Prepare your garden soil by working into it a lot of well-rotted manure. It does best on a rich sandy soil; is a hardy perennial growing from 3 to 4 feet high and an ounce of seed will give you a 100 feet of drill.

Plant in May and when the plants have 2 or 3 leaves, transplant into rows 2 feet apart in the row, having the rows 2½ to 3 feet apart. The plants will not be bearing till the second year, and the bed should be mulched on the approach of cold weather. Cultivate often. A bed once established will continue to produce for several years. The bur or flower-bed is the part of the plant that is used, and these should be gathered before the blossoming part appears. By carefully gathering the burs so that the flower does not form the plants will yield well throughout the season.

The second year the heads will be ready for use in July, and if a few of the flowering plants have their tops lopped off close to the ground the plant will be spurred on to send out new shoots, which grow quickly. These we tie up and blanch just as celery is blanched, and these tender shoots make the foundation of many appetizing salads.

The French people, who are noted for their thrift in cooking, make great use of this wonderful vegetable. They long ago discovered how rich it is in phosphorus, while in common with all green food it has valuable tonic properties that should commend it to all persons who have the preparation of food.

### Your Health

"MEDICUS."

#### Wednesday Half-holiday for the Wives (and Men, too)

SOME farmers are progressive. Listen to the suggestions of this successful farmer. (He was formerly a school teacher, but that is nothing against him). He believes that you can plan your work so that everybody can be free on Wednesday afternoon. You have always planned to have Sunday off, why not Wednesday afternoon too? What would you do on the half holiday? Go to the Community Hall, and have a programme of sports for the young, baseball, lawn-tennis, etc., for the married, lawn-bowling, quoits (we used to say "horse-shoes"). Then a lunch, then a dance, or a concert. Then everybody would live longer and die happier. I wonder if we will ever live to see it. Wonders never cease. Stop and admire the wonderful leadership of Premier Drury.

A university professor tells me that the boys who fail on their examinations are those who have not played games at home. "It is such a waste of time, and labor is so scarce." When these boys reach the city, they have too much pride to start and learn how to play basketball or football or hockey or tennis. They are attracted to the movies and the cheap dance halls, and there is the inevitable result—failure on their examinations. On the other hand if the boy has developed a love for sport (and that means a love of honest hard playing), he will soon find himself surrounded by boys of his own type. If he gets on the first team, he pledges himself not to smoke cigarettes—no tea or coffee—no late hours—regular habits of eating and sleeping. So, mothers, prepare your boys and girls for the university or better yet, the O. A. C. and McDonald Hall at Guelph, by insisting that they play games of any and all kinds. If you send them knowing something about games, they can well play the great game of life, and you will need not lose an hour of sleep wondering where they are or what they are doing.

#### Enemas

THE trend of the teaching of to-day is to depreciate the use of purgatives. The constipation is caused by retention in the lower or large bowel, and not in the upper part of the intestine. They say "Then why give drugs which upset the whole gastrointestinal tract when the trouble is in the lower bowel? Why not stimulate it to contract and

empty itself?" Hence the increasing use of enemas.

Equipment.—A fountain syringe or a bulb syringe, small or medium-sized nozzle, vaseline or olive oil, or ordinary soap as a lubricant for the nozzle.

Solutions Used.—Soap suds, (castile soap and soft water to make a fair suds), Normal salt solution or Normal saline—(a teaspoonful of salt to a pint of water). This is the least irritating fluid you can use, because blood contains the same percentage of salt. A saturated solution of Epsom salts is especially recommended (6 or 8 oz.) where there is much distension of the abdomen with gas. Turpentine is sometimes added to the soap suds (a teaspoonful to a pint), to remove gas. Glycerin suppositories or a teaspoonful of glycerin or a piece of curd soap the size of the lower half of your little finger are used at times.

Method.—The patient should lie on his left side with his hips raised. The syringe should be completely filled with the solution (all the air expelled), and the nozzle after lubrication with vaseline, oil or soap inserted into the bowel. Then inject slowly. Stop altogether for a few minutes if the patient complains. Then start again. You can hold the water bag one or two feet above the level of the hips. You cannot do any harm by injecting one or two pints of solution. If one enema is not effectual, wait half to one hour and repeat.

For children, the injection of a half to one teaspoonful of glycerin with a small syringe is usually recommended. Often as effectual is the use of a small piece of curd soap. In the hospitals, a small glass rod is used.

#### NUTRIENT ENEMA.

Nutrient Enema.—First use a cleansing enema of soap and water, to empty the bowel, then wait a half hour or so, until all peristaltic movement has stopped, inject slowly the solution that you wish to be retained.

Solutions Used.—You can not use fats. You may use proteins if they are completely digested, i. e., broken down to amino acids. Then the carbohydrate you will use is glucose or dextrose, because that is the sugar found in the blood. Then to make the solution as non-irritating as possible you will add salt in the proportion of a teaspoonful to a pint (the same proportion as exists in the blood). So, here is your formula: Peptonized skim-milk, 1 cup (proteins in the form of amino acids); corn syrup, 1 tablespoonful (chiefly glucose or dextrose); salt, ½ teaspoonful (to make it more readily absorbed and non-irritating). If you haven't peptonizing tablets or powders (to be had at any drug store) omit the milk and use ordinary water. Usually you can buy a dozen little vials of peptonizing powders and the directions for use are found inside the box. Don't use white of egg, beef tea, raw or undigested milk or whiskey. It is a waste of good material.

#### WHEN IS AN ENEMA USEFUL?

If your baby has a severe pain in the abdomen, severe colic, don't, don't, don't give a purge. You may kill your baby. If the colic happens to be appendicitis or peritonitis, a dose of castor oil is dangerous,—will I say murderous? It is so much better to give a simple enema of normal salt solution.

2. Constipation.—In children, curd soap inserted in the bowel is practically harmless. Of course, you are not removing the cause of the constipation, so you should not continue it indefinitely, but rather try to remove the cause of constipation. If used every second or third day, it will not paralyze the bowel. Some use glycerin or soap suds, but in my opinion using a piece of soap itself is preferable.

3. Following confinement. At the New York Lying-In Hospital, they studied the effects of purgation on the mothers. Every alternate patient was placed in Ward A and purged with castor oil. The other patients were placed in Ward B and given an enema on the third day if the bowels didn't move. They studied 644 cases. In 322 patients, who were given enemas, fever occurred twice. In 322 patients who were given purgatives, fever occurred 28 times. They are convinced now that it is much better to give an enema following confinement than it is to give castor oil.

4. Nutrient enemas are useful when the patient is not taking sufficient food, e. g., when the patient can't retain any-



thing on his stomach, e. g., in ulcer of the stomach. Some recent investigations seem to indicate that the morning vomiting of pregnancy can be controlled by nutrient enemias of glucose. Following operations, or in any condition of shock or collapse, nutrient enemias are very useful.

## The Fashions.

### 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. 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 SUPPLIED EXCEPT THOSE ILLUSTRATED.**

Since pattern manufacturers have raised the price of patterns (owing to scarcity of paper, etc.) all patterns henceforth will be 15 cents per number.

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

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

3214-3212. A Popular Suit Style.  
Coat 3214 cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Skirt 3212 cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It will require 4 1/4 yards of material for the skirt, and 2 5/8 yards for the coat of 44-inch material. The width at lower edge of skirt, with plaits extended, is about 2 1/2 yards. TWO separate patterns 15 cents FOR EACH pattern.

2819. Child's Dress.  
Cut in 3 sizes: 2, 4 and 6 years. Size 4 requires 2 3/4 yards of 36-inch material. Price, 15 cents.

3197. Misses Dress.  
Cut in 3 sizes: 16, 18 and 20 years. An 18-year size will require 4 1/4 yards of 44-inch material. The width of the skirt at the foot is 1 1/2 yard. Price 15 cents.

2838. Boy's Play Suit.  
Cut in 4 sizes: 3, 4, 5 and 6 years. Size 4 requires 2 1/4 yards of 36-inch material. Price 15 cents.

3213-3192. A Pretty Gown.  
Jumper Blouse 3213 cut in 6 sizes: 34, 36, 38, 40, 42, and 44 inches bust measure. Skirt 3192 cut in 6 sizes: 22, 24, 26, 28, 30, and 32 inches waist measure. To develop this style as illustrated, will require 6 3/8 yards of 40-inch material. The width of the skirt at lower edge, is 1 3/4 yard. TWO separate patterns 15 cents FOR EACH pattern.

3201. Girl's Dress.  
Cut in 4 sizes: 6, 8, 10 and 12 years. A 10-year size will require 3 1/2 yards of 36-inch material. Price 15 cents.

3209. Serviceable Two Piece Morning Garment.  
Cut in 7 sizes: 36, 38, 40, 42, 44, 46 and 48 inches bust measure. A medium size will require 7 1/2 yards of 27-inch material. The width of the skirt at its lower edge is 2 yards. Price 15 cents.

3194. A Dainty Boudoir Set.  
Cut in 4 sizes: Small, 32-34; medium, 36-38; large, 40-42; and extra large, 44-46 inches bust measure. A medium size will require 2 7/8 yards of 36-inch material for the Sack, and 3/4 yard of 22-inch material for the cap. Price 15 cents.

3203. Girl's Dress.  
Cut in 4 sizes: 6, 8, 10 and 12 years. A 10-year size will require 2 5/8 yards of 27-inch material for the blouse and 2 3/8 yards for the skirt. Price 15 cents.

3202-2909. A Smart Costume.  
Waist 3202 cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Skirt 2909 cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. To make the entire costume of one material will

require 6 3/8 yards of 27-inch material. The width of the skirt at lower edge is about 1 5/8 yard. TWO separate patterns 15 cents FOR EACH pattern.

3211. Child's Play Garment.  
Cut in 4 sizes: 1, 2, 3 and 4 years. A 4-year size will require 3 1/2 yards of 36-inch material. Price, 15 cents.

3207. One Piece House Dress.  
Cut in 7 Sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. A 38-inch size will require 7 1/2 yards of 27-inch material. The width of the skirt at its lower edge is 2 yards. Price 15 cents.

3216. Girl's Dress.  
Cut in 4 sizes: 6, 8, 10 and 12 years. A 10-year size will require 1 7/8 yard of 36-inch material for the skirt and 2 yards of 27-inch material for the waist. Price 15 cents.

3205-3189. A Trim Business Costume.  
Waist 3205 cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Skirt 3189 cut in 7 sizes: 24, 26, 28, 30, 32, 34 and 36 inches waist measure. The width of the skirt at lower edge is about 1 7/8 yard. It will require 3 3/4 yards of 36-inch material for the skirt and 4 1/8 yards of 27-inch material for the waist. TWO separate patterns 15 cents FOR EACH pattern.

2860. Girl's Dress and Sun Bonnet.  
Cut in 5 sizes: 2, 3, 4, 5 and 6 years. Size 4 requires 2 1/2 yards of 36-inch material for the dress and 3/4 yard for the bonnet. Price, 15 cents.

2785. An "Easy to Make" Apron.  
Cut in 4 sizes: Small, 32-34; medium, 36-38; large, 40-42; and extra large, 44-46

inches bust measure. Size medium requires 3 3/4 yards of 36-inch material. Price, 15 cents.

2910. Boy's Suit.  
Cut in 4 sizes: 3, 4, 5 and 6 years. Size 4 requires 3 yards of 27-inch material. Price 15 cents.

3240-3226. A Pretty Frock.  
Waist 3240 cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Skirt 3226 cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. The width of the skirt at its lower edge is 1 7/8 yard. It will require 8 yards of 36-inch material for a medium size, for the entire dress of one material. TWO separate patterns 15 cents FOR EACH pattern.

3229. Girl's Dress.  
Cut in 4 sizes: 8, 10, 12 and 14 years. A 12-year size will require 4 yards of 44-inch material. Price 15 cents.

2739.—Ladies' House Dress.  
Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 7 1/2 yards of 27-inch material. Width of skirt is about 2 1/4 yards at the foot, with plaits drawn out. Price 15c.

3227. Child's Dress.  
Cut in 5 sizes: 6 mons., 1, 2, 3 and 4 years. A 4-year size will require 2 5/8 yards of 36-inch material. Price 15 cents.

3242-3228. A Pretty Dress.  
Waist 3242 cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Skirt 3228 cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. The width of the skirt at lower edge with plaits extended is 2 3/4 yards. For a

medium size 9 yards of 27-inch material will be required. TWO separate patterns 15 cents FOR EACH pattern.

3248. Junior Dress.  
Cut in 3 sizes: 12, 14 and 16 years. For a 14-year size 4 1/2 yards of 36-inch material will be required. Price 15 cents.

3235. An Attractive Apron.  
Cut in 4 sizes: Small, 32-34; medium, 36-38; large, 40-42; extra large, 44-46 inches bust measure. A medium size will require 4 1/2 yards of 27-inch material without the sash. Price 15 cents.

2916. A Stylish Gown.  
Cut in 3 sizes: 16, 18 and 20 years. Size 18 requires 4 1/4 yards of 54-inch material. Width at lower edge is about 1 5/8 yard. Price 15 cents.

3222. Girl's Dress.  
Cut in 4 sizes: 6, 8, 10 and 12 years. A 10-year size will require 2 1/2 yards of 27-inch material for the guimpe, and 2 3/4 yards for the dress. Price 15 cents.

3010. Ladies' Apron.  
Cut in 4 sizes: Small, 32-34; medium, 36-38; large, 40-42; and extra large, 44-46 inches bust measure. Size medium requires 3 1/4 yards of 36-inch material. Price 15 cents.

3241. A Practical Play Garment.  
Cut in 5 sizes: 1, 2, 3, 4 and 5 years. A 4-year size will require 2 3/4 yards of 36-inch material. Price 15 cents.

3237. Ladies' Dress.  
Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. A medium size will require 7 1/4 yards of 42-inch material. The width of the skirt at its lower edge, is about 1 3/4 yard. Price 15 cents.



2888. Girl's...  
Cut in 5 s...  
years. Size 1...  
44-inch mater...  
3244. La...  
Cut in 7...  
and 46 inches...  
size will requir...  
The width of...  
2 1/2 yards. P...  
3236. Chil...  
Cut in 5 si...  
A 2-year size...  
inch material...  
2855. Girl...  
Cut in 4 si...  
Size 10 requir...  
material, with...  
15 cents...  
3215. La...  
Cut in 7 si...  
and 46 inches...  
size will requir...  
material, or 4...  
and skirt, wit...  
material for o...  
width of the s...  
yard. Price 1...  
3193. Boy...  
Cut in 4 s...  
a 4-year size...  
44-inch mater...  
3190. An...  
Cut in 4 si...  
36-38; large, 4...  
inches bust...  
will require 5...  
Price 15 cents...  
3217. A C...  
Cut in 4 si...



of 27-inch material  
O separate patterns  
pattern.

14 and 16 years.  
yards of 36-inch  
required. Price 15

ve Apron.  
small, 32-34; medium  
extra large, 44-46  
A medium size will  
of 27-inch material  
Price 15 cents.

own  
18 and 20 years.  
yards of 54-inch  
lower edge is about  
cents.

8, 10 and 12 years.  
require 2 1/2 yards of  
the guimpe, and 2 1/4  
Price 15 cents.

on.  
all, 32-34; medium,  
and extra large,  
sure. Size medium  
of 36-inch material.

Play Garment.  
2, 3, 4 and 5 years.  
require 2 1/4 yards of  
Price 15 cents.

36, 38, 40, 42, 44  
measure. A medium  
yards of 42-inch  
of the skirt at  
cut 1 1/4 yard. Price

2888. Girl's Dress.  
Cut in 5 sizes: 6, 8, 10, 12 and 14  
years. Size 12 will require 4 5/8 yards of  
44-inch material. Price 15 cents.

3244. Ladies' House or Porch Dress.  
Cut in 7 sizes: 34, 36, 38, 40, 42, 44  
and 46 inches bust measure. A 38-inch  
size will require 6 yards of 36-inch material.  
The width of the dress a lower edge is  
2 1/4 yards. Price 15 cents.

3236. Child's Dress.  
Cut in 5 sizes: 1, 2, 3, 4 and 5 years.  
A 2-year size will require 2 1/8 yards of 36-  
inch material. Price 15 cents.

2855. Girl's Dress.  
Cut in 4 sizes: 6, 8, 10 and 12 years.  
Size 10 requires 3 3/8 yards of 27-inch  
material, with 1 yard for bolero. Price,  
15 cents.

3215. Ladies' Dress.  
Cut in 7 sizes: 34, 36, 38, 40, 42, 44  
and 46 inches bust measure. A 38-inch  
size will require 6 1/4 yards of 40-inch  
material, or 4 yards for the underwaist  
and skirt, with 2 3/8 yards of contrasting  
material for overblouse and tunic. The  
width of the skirt at its lower edge is 1 3/4  
yard. Price 15 cents.

3193. Boy's Suit.  
Cut in 4 sizes: 3, 4, 5 and 6 years.  
A 4-year size will require 2 1/2 yards of  
44-inch material. Price 15 cents.

3190. An Attractive Apron.  
Cut in 4 sizes: Small, 32-34; medium,  
36-38; large, 40-42; and extra large, 44-46;  
inches bust measure. A medium size  
will require 5 3/4 yards of 36-inch material.  
Price 15 cents.

3217. A Good School Dress.  
Cut in 4 sizes: 6, 8, 10, and 12 years.

A 10-year size will require 4 3/8 yards of 36-  
inch material. Price 15 cents.

2889. Misses' Dress.  
Cut in 3 sizes: 16, 18 and 20 years.  
Size 18 will require 5 1/4 yards of 36-inch  
material, if skirt is made with tucks,  
and 4 3/4 yards if made without tucks.  
width at lower edge is about 1 3/8 yard.  
Price 15 cents.

3195. A Dainty Frock.  
Cut in 4 sizes: 4, 6, 8 and 10 years.  
A 6-year size will require 3 3/4 yards of  
36-inch material. Price 15 cents.

3204. Ladies' House Dress.  
Cut in 7 sizes: 34, 36, 38, 40, 42, 44  
and 46 inches bust measure. Size 38  
will require 8 3/8 yards of 24-inch material.  
The width of the dress at the foot, with  
plaits extended, is 2 1/4 yards. Price 15  
cents.

And we must help our time to take its  
stand.  
Each single struggle hath its far vibration,  
Working results that work results again;  
Failure and death are no annihilation,  
Our tears exhaled will make some  
future rain.  
R. A. VAUGHAN.

Yesterday I had the joy and privilege  
of gathering with nearly a thousand other  
women at the Table of the Lord. It was  
an inspiration to see so many servants  
of the King drawing near to Him and to  
each other in the sacrament which was  
His dying love-gift to His bride, the  
Church. It was still more inspiring to  
remember that the women who filled the  
large building were only a tiny fraction  
of the King's loyal subjects. The leaven  
of the kingdom is hidden in millions  
of hearts and it is working secretly in a  
vast multitude of towns, cities and  
villages. The women who were gathered  
together in one place yesterday will be  
scattered again to-morrow. Each will  
have the opportunity of helping to leaven  
at least one corner of the earth, and  
each has been reminded of the great  
commission of the Master to make  
disciples of "all" nations. The leaven  
has been hidden for one great purpose—  
that "the whole" may be leavened.  
When Christ lights the flame of love in  
any heart it is not for that heart only,  
but in order that all in the house may be  
enlightened.

Yesterday I heard a missionary from  
the far north tell the story of seventeen  
years of apparently fruitless work among  
the natives there. Then—at last!—  
nine were baptized, having given their  
lives to Christ. Each of these converts  
was like leaven among his neighbors,  
and in another year a hundred more were  
won for Christ. Not long ago the  
heathen Eskimo thought nothing of  
killing helpless babies, or of putting out  
into the snow, to perish with the cold,  
the sick and aged people. This is still  
done among the few who are still in the  
darkness of heathenism, but where the  
leaven of Christianity has permeated  
their society it is never done.

As the work of the leaven is done  
secretly, hidden from observation, so  
our life with Christ is a secret service.  
The results may appear in the outward  
world, but the results are dependent on  
the hidden life. A man's outward life  
may be commonplace, and yet it will  
secretly influence the world for good if he  
keeps in touch with God. You did not  
come into the world by accident—you  
are a soldier in the secret service of the  
King. Every day you receive your  
orders from Him. The people you meet,  
and the people you live with are of the  
greatest value in His estimation. You  
must not stand apart in selfish or self-  
righteous isolation. The apostles were  
not kept apart from the world for fear  
of contamination, but were sent into  
the thick of the throng. Their Master's  
prayer was: "I pray not that thou  
shouldest take them out of the world,  
but that thou shouldest keep them from  
the evil."

Perhaps the little band of Christians  
might have concentrated their work,  
and kept together in Jerusalem, if they  
had been allowed to choose. But a  
great persecution scattered them abroad,  
and they "went everywhere preaching  
the word." So the enemies of the faith  
helped it along, quite unintentionally.  
That fierce persecutor, Saul of Tarsus,  
helped the Church of Christ when he  
tried his hardest to stamp out Christianity.  
It is a good deal easier, I believe, to help  
forward the cause of Christ than to kill  
the faith which God Himself had filled  
with life.

When you put a seed into the ground  
many mighty forces co-operate with the  
life which is hidden in its heart. Even  
the sun, which is so many million miles  
away, lends that weak and struggling  
life a helping hand. So, wherever God  
has placed you, He is able to work  
through you in most unlikely ways.  
The very things which seem to block your  
way may be changed into stepping-  
stones. Joseph, the slave, probably felt  
that his lot was hard and discouraging;  
and yet the obstacles and hardships he  
accepted so bravely refined his character  
and brought out a beauty which could  
hardly have been developed in ease and  
pleasure. Instead of lamenting over  
your troubles and the narrow limitations  
of your life, thank God for everything  
He has given you. What you think are

stumbling-stones are given you as stepping-  
stones to success. A heavy cross may  
be wings to an aspiring soul.

One great opportunity of the secret  
service is the opportunity of prayer.  
You want to reach another soul, to win  
another subject for the King. Outside  
methods may do more harm than  
good. You may repel instead of attract-  
ing. But, if you pray, God will  
open the way—if your prayers are  
earnest and sincere. There was a small  
boy once who wanted to spend all his  
money at the fair. His father suggested  
that it would be better to put some of it  
in his missionary box. When the boy  
said: "But I need all the money!" his  
father asked him to pray about it. The  
child prayed, but carefully avoided  
mentioning missionaries in his prayer.  
But his conscience worried him, so that  
at last he asked God to bless the mission-  
aries and help the little heathen children.  
Then—of course—he could not help  
assisting his prayers with his money.

If your conscience tells you to give  
money for the extension of Christ's  
kingdom, at home or abroad, and you  
are turning a deaf ear to the call, remember  
you are in the secret service of the King.  
Talk to Him about the need of money.  
Then, if He wants you to help, He will  
let you know. Very often He sees that  
we can do something to answer our own  
prayers. If we refuse to do our part it  
is very plain that we don't care much  
about the matter.

This morning I heard someone say  
that the Church had never been provided  
with such an organization as to-day—the  
machinery for converting the world is  
quite up-to-date. And yet our progress  
is slow. Perhaps we are depending  
too much on elaborate machinery. Our  
churches are equipped for social service,  
we have kitchens and gymnasiums and  
clubs of many kinds. We know that  
young people have bodies and minds,  
and we are eagerly providing for their  
development. Let us not forget that  
they have also souls. A church may  
be up-to-date and yet very feeble—like  
the "rich" church in Laodicea. The  
hidden leaven, which has power to work  
through the measures of meal, may be  
lacking. Machinery is a poor substitute  
for life, after all. The life that is hid  
with Christ in God reaches out with  
strange and secret power. To know  
about Christ is one thing, but to know  
Him as your dearest Friend is quite  
another thing.

St. Paul counted all earthly advantages  
as worthless in comparison with his  
great ambition, which was to "know"  
Christ.—Phil 3:10.

Do you sometimes become as dis-  
couraged as Elijah, when you fancy that  
it is hopeless to try to leaven the world?  
The people around you seem to care only  
for getting rich, or having a good time,  
or standing well with their neighbors.  
Perhaps this is only seeming, after all.  
They, like yourself, have a hidden life  
which only God knows about. Elijah  
made a great mistake when he said that  
he was the only person in Israel who  
worshipped God. Trust the Teacher of  
hearts to find and make good use of His  
opportunities. Keep close to Him and  
His life will mysteriously pass into you,  
and through you to other souls. As  
meal can be leavened so also can men and  
women. Their hearts are not made of  
stone. They do care for realities, even  
when they seem to be interested only in  
making money or in dressing fashionably.

And never give way to a false humility,  
saying you have no power to help or  
uplift society. You have no power, but  
God has. He can use you as He used the  
stick which Moses carried to liberate  
His people from slavery. They are His  
people, His children. They can be  
drawn nearer to Him as surely as you  
can.

It is not by talking about Christ that  
we can do most good, but rather by  
talking to Him and listening to His  
voice. Christianity is a life, and a most  
infectious life. It is impossible to live  
with Christ, and consecrate your life  
to His service, and still remain a dead  
and ineffective member of His kingdom.  
Your secret communion with Him will  
be felt by others, and will spread in ever-  
widening influence. Your business is  
not to call yourself a Christian only,  
but to really be a Christian. People  
can only take knowledge of you that you  
have been with Jesus if you have been

# Hope's Quiet Hour.

## Secret Service.

The kingdom of heaven is like unto  
leaven, which a woman took, and hid  
in three measures of meal, till the whole  
was leavened.—S. Matt. 13:33.

Therefore, though few may praise, or help  
or heed us,  
Let us work on with head, or heart,  
or hand,  
For that we know the future ages need us;





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with Him. He is the Leaven secretly uplifting the whole race of men.

"Go, Thou mighty Captain, conquering on Thy way: Night upon the mountains changes into day."

DORA FARNCOMB.

**For the Sick and Needy.**

The Q. H. P. was quite empty—for once—but two sisters in Galt sent \$3.50, and Mrs. J. E. B., London, sent a dollar. A pair of beautiful bedroom slippers also arrived (from "Aunt Pay") and went at once to a shut-in. I send thanks for all these donations and also for the S. S. papers for the sick.

DORA FARNCOMB,  
6 West Ave., Toronto.

**The Ingle Nook**

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

**L**AST week I had a motor ride across part of Grey and North Bruce to that beautiful little spot known as Sauble Beach. Immediately before reaching it the way wound for a considerable distance through a woods, with not even a fence at either side of the road to interrupt the view. Nor had the baby leaves come out enough to interrupt it. As far as one could see into the depths was a labyrinth of trunks, branches and twigs in all the shades of gray, brown and bronze, with here and there, like a camp-fire, the red flame of red-barked willow osiers. Beneath, rising above the brown carpet of last year's leaves, were little pink patches of "spring beauty," and vast swards of the mottled leaves of the dog's tooth violet above which, here and there, nodded a yellow blossom. I was told that in the marshy places quantities of the rare trailing arbutus were to be found—a claim proved by a bouquet of this wonderfully scented flower in the house we had just left. I was told also that later, in these woods and marshes, would be found wild tiger lilies and the red Canada lily, clumps of moccasin flower, masses of the beautiful blue gentian and many other kinds whose names were unknown to my informant. Once these flowers were found in every part of Ontario (you remember Mrs. Jameson's description of the great beauty and variety of those she found in the Brantford district upwards of one hundred years ago); now their haunts are restricted to out-of-the-way by-paths of the Province, and even that area is continually decreasing. Unless some real effort is made to preserve them, many of the species, inside of another fifty years, will be quite extinct.

Even the more common kinds, such as like to reproduce themselves by the million if given half a chance, are being driven away near any center where people congregate. I came upon a demonstration of that last Sunday. A friend and I took a walk to a woods near this city, not with the intention of "gathering" the wild flowers beyond three or four specimens as a souvenir of our trip, but anxious to see them where they grew, and enjoy them in their own setting of earth and woods and sky. On the way we met numbers of people returning to the city, men and boys, women and children, all laden with as many dog's tooth violets as they could carry, many of the dainty yellow heads already beginning to droop. One knew that the speedy destiny of sheaves of these flowers would be the garbage pail. When we got to the woods (one that, for a certain reason, is a new discovery for the city folk) we found it almost completely riddled. In the course of our walk through it we saw perhaps a dozen or two of the dog's tooth violet still standing.

It is a beautiful thing to love flowers, and the very fact that the people we had met had gathered them showed a certain species of love. But the true lover of flowers will gather but few. He will take no chances on exterminating them, but will leave them to seed and reproduce. After all, too, the woods

flowers lose their chief beauty when one takes them from the places where they grow. As Emerson says, one "cannot bring home the woods and the sky."

To return to our trip to Sauble Beach: One thing that struck me very much on the way there, before reaching the long woods above described, was the vast areas of land in that vicinity which will never be good for anything under heaven except reforestation. True there were many strips of "good country" from an agricultural standpoint, but adjoining them were thousands of acres of boulders, huge masses of rock with pockets of earth between. Once all this rock-strewn country was covered with fine timber. The timber has been cut away, the stumpy remains overrun with fire, and now nothing is left but desolation.

Hon. Mr. Drury has pronounced in favor of reforestation of the waste spaces of Ontario, and it is to be hoped that when the work begins this will be one of the spots chosen. Millions of small trees might be set out here, as in many other parts of Canada which are good for nothing else. Before very many years the growth could be thinned out a little, and the wood put to many uses, other trees planted, and the supply kept up. In Europe many of the forests have been "harvested" in this way for hundreds of years, without any perceptible diminution of the number of trees. In some parts it is compulsory to plant two trees whenever one is cut down—two trees, so that one at least will be fairly sure to grow.

The trouble in this country has been that the woods have been destroyed wholesale, not even the young timber being left to come on,—and this on land positively useless for anything other than tree-growing! As a result of this increasing "treelessness" tornadoes are increasing in number; flooding of the land in spring is more common, the fertility of the land, as a consequence, being swept down the streams, to be finally deposited on the lake bottoms; and timber has become so scarce that firewood, paper (made from pulpwood) and building materials are reaching prohibitive prices.—That may be all very well from a certain selfish standpoint, so long as the owners of the woods have timber or firewood to sell—but some day the seller or his grandchildren will have to buy, and that will be a different story.

It is a question, is it not? if we have any right to rifle the earth to such an extent that those who come after us will have a very hard time to live at all. I have an idea that somehow and somewhere we ourselves, even though we have passed through death, shall have to pay for all such selfishness. We are using up all the coal, we are using up all the forests, very "advanced" men are talking about extracting nitrogen from the air for various purposes.—Unless we keep up the supplies of some of these things what are the people of the future to do?

Perhaps we on our farms cannot each do much on a wholesale scale. But there is one thing that each can do. He can preserve and judiciously harvest his own woodlot,—keep out the cattle, see to it that young trees are kept growing on, and even plant out young trees on any waste spots that may be on the farm. If there are not enough young saplings on the place to do this it is quite likely that one can get a supply from the Forestry Department at the Capital of his own Province;—in Ontario the address would be, of course, the Parliament Buildings, Toronto. I know two or three people who have got trees in this way and now have some fine young groves coming on very rapidly. A great many trees can be planted out in a half day either in spring or fall, and comparatively little time taken from the ordinary work. The smaller the trees the surer they are to "catch" and the faster they grow.

Now to another of my "pet" subjects: Do you know, have you heard, that brogues are the very latest fashion in footwear? Yes, brogues—broad in the toe, low and broad in the heel! They are not very cheap, of course—women in the cities are paying from \$12.50 to \$14 for them—but the leather is nice, and the workmanship good. They are being used for all sorts of day wear, pumps and high heels being left exclusive-

ly for eve walking is that high soon look and high were one to

Wor Did yo of the an familiar y the lion, we refrain

A pess discussing view-point the forme better wo turned th we are he work and

Re-decora

"Farm writes aski an old ho closes her l so much those who be doubly the writer and then, the Ingle N

Now to Your big ft., with glass door How delig Since the c room to ha cream in co wall for ab may be co paper. Co paper me narrow wo like the ce ceiling.) I very few small on effective. for the flo at all in a choose the wood, and (may be b break the cosiness. with chin between, a and birds be good. Let the rather tha blinds up can be see If the Ma however, c (a gobelin nice with will do ver that for y ivory whit walnut bro

Oh how old-fashion furniture! brown rep cushions li Good chint careful ab should be hooked to would be lo days of fue rather an of very oft

You mig work in th nicely by carefully. have a dai pale green frilled cu a plain cr border and green; wh cream wall cups, hang case have Lucky y towels, in either rod your fancy sideboard You are r silver insid



ly for evening parties, etc., when no walking is to be done. It is safe to say that high heels and pointed toes will soon look as ridiculous on the streets and highroads as would evening dress, were one to wear it there. JUNIA.

ly for evening parties, etc., when no walking is to be done. It is safe to say that high heels and pointed toes will soon look as ridiculous on the streets and highroads as would evening dress, were one to wear it there. JUNIA.

**Worth Thinking Over**  
Did you ever wonder which one of the animals with which you are familiar you most resemble? There's the lion, the lamb, the bear—but we refrain from further suggestion. *Our Dumb Animals.*

A pessimist and an optimist were discussing life from their different view-points. "I really believe," said the former, "that I could make a better world myself." "Sure!" returned the optimist, "that's what we are here for. Now let us get to work and do it." *Boston Transcript.*

**Re-decorating a House. Table Service**  
"Farm Woman," York Co., Ont. writes asking advice about re-decorating an old house. We love the way she closes her letter: "In apology for seeking so much information I wish to thank those who reply. Your kindness will be doubly blest, like charity; it will bless the writer and many others as well, and then, think how interesting it makes the Ingle Nook!"  
Now to the house:  
Your big oblong living-room, 18 ft. x 15 ft., with 2 west windows and 2 half glass doors makes us green with envy! How delightfully bright it must be! Since the ceiling is high it will improve the room to have a "drop" ceiling, say deep cream in color, running downward on the wall for about 2 ft. Below this the wall may be covered with sand-colored plain paper. Cover the line where the wall paper meets the drop ceiling with a narrow wooden moulding painted cream like the ceiling (it really belongs to the ceiling.) In such a nice large room have very few pictures, fairly large ones—small ones would look trivial and ineffective. If you must have linoleum for the floor (and it is not a bad choice at all in a room subjected to hard wear) choose the quiet kind that looks like wood, and put two or three small rugs (may be braided or hooked) over it to break the hard, cold look and give cosiness. The windows would look well with chintz side curtains and valance between, at the top—a design of flowers and birds on a sand colored ground would be good. Also use the same for cushions. Let the side curtains cover the wall rather than the windows, and run the blinds up high so that the landscape can be seen and no light will be shut out. If the Madras muslin is of good color, however, or can be made so by dyeing (a gobelin blue or bottle green would be nice with sand-colored walls) perhaps it will do very nicely; you will have to judge that for yourself. Would you not like ivory white for the woodwork? If not a walnut brown will do very nicely.

Oh how lucky you are to have a fine old-fashioned sideboard, sofa and other furniture! Cover the sofa with golden-brown rep and supply it with chintz cushions like the chintz for the curtains. Good chintz washes very well if one is careful about it, and the cushion covers should be removable, just buttoned or hooked together beneath. A fireplace would be lovely in this room, but in these days of fuel conservation may be thought rather an expensive luxury to make use of very often.  
You might make the pea-green woodwork in the bedrooms upstairs do very nicely by choosing the wall-paper very carefully. For example one room might have a dainty striped paper in white and pale green, and white dotted muslin frilled curtains; another might have a plain cream wall with green flowered border and chintz curtains in white and green; while the third might have a cream wall flowered with violets or buttercups, hangings, etc., to match. In each case have the ceiling light cream.  
Lucky you are, too, to have real linen towels, in these days of linen-famine. Use either rod or rings for them, as pleases your fancy. Yes a linen runner for the sideboard will be in excellent taste. You are right in deciding to keep the silver inside the sideboard, for the most

part, it is more refined not to make a show of anything, but it will be all right to leave the clock and candlesticks on top also the tea and coffee service. If you should have a fireplace remove the clock and candlesticks to the mantel, leaving the service and vases on the sideboard.  
For the verandah at the kitchen door I think I should have a dark, restful green—olive, or "bottle" green, not the harsh dark green that usually comes in cans. Mixing the latter with sienna shades usually produces the right shade of green. The window frame (outside, is it?) might be stone gray.

If you read the little article in last week's "Advocate" on "Painting Ceilings" you will already have come to the conclusion that a wash of thick glue, let get thoroughly dry will prevent mildew spots from showing through wall paper. Take off all old paper and scrub the walls until clean before putting on the new. It pays to do this as the "job" looks so much better when finished. It is more sanitary to do this, also, as successive layers of paper and paste harbor dampness and moulds. It is not hard to take off old paper if it is thoroughly soaked with hot water.

It is equally proper to use the fork in the right or left hand when eating potatoes. Do whichever appears to you the daintier way. The chief thing to be remembered is that the fork must not be "loaded" with food, as that suggests shovelling.  
Omelet is usually served after porridge at breakfast, or as the first course for supper. Serve it with toast, plain bread, or rolls—butter too, of course. Fruit salad with sweet dressing may be served as the first course for luncheon, or at the last to take the place of dessert; also it may take the place of canned fruit for supper. If made with mayonnaise dressing it must, of course, be served with cold meat as an ordinary vegetable salad would be.

Yes, crocheted mats are still in good form for the dinner table, and always will be since they fill a real need. For the tea-table use a thick mat under any hot dish and a centerpiece for the flowers in the middle of the table. Other doilies are not absolutely necessary over a tablecloth, although some use tiny ones for the pepper and salt stand, pickle dish, etc. You may use a tray cloth on your tray or not, as you prefer; there is really no rule about it. Some put one on to cover up an unattractive tray or to prevent cups, etc. from slipping about as one carries the tray. When on the table there is no necessity of putting a tray cloth either under or over a handsome tray, unless one be put on to protect the surface. Usually whatever common sense suggests is right.  
Thank you for your very kind personal letter. It is much appreciated.

**Setting a Table.**  
For Joan, Lennox Co., Ont.  
If bread and butter plates seem convenient at dinner, help to save your table-cloth, etc., use them. Some very fashionable folk do not serve butter at dinner,—of course, they have rich meats and gravies and puddings which seem to leave no place for butter. These folk do not put bread and butter plates down at all, but place a cube of bread in the fold of each napkin, or on a regular bread-plate. There is nothing unrefined, however, serving butter for dinner or using bread and butter plates. If the dinner plates are large the latter may not be necessary.  
With a simple two-course dinner serve the salad with the meat and potatoes.—It may be passed along, or left ready, on individual dishes at each place before the dinner begins. Side dishes are not used nearly as much as they used to be. They take up too much room, suggest clutter if more than one is used, and make endless dish-washing. Olives are placed on the table at the beginning of a meal, and can be eaten whenever any one wishes to pick one up. Cheese, one wishes to salted almonds and small pickles may also be on the table throughout the meal. Cheese is not really necessary at dinner as it is a protein food, and the meat supplies enough protein.

**Amount Needed.**  
Miss E. Scarlett, Huron Co., Ont., writes that she uses about 2 pounds of wool for each comforter, "teased" apart

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The Merchants Bank will cash all War Loan coupons or interest cheques when due, on presentation, without making any charge whatever for the service.

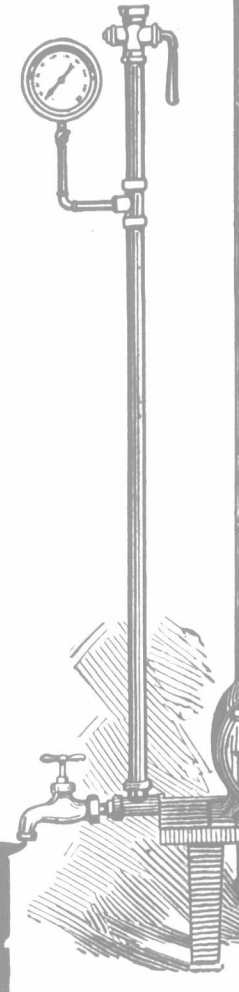
If you have not a Savings Account, why not use your interest money to open one with This Bank?

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

This is an EMPIRE WATER SUPPLY SYSTEM

Put City Conveniences In Your Home  
RUNNING hot and cold water is a necessity on the farm—in the house hot and cold water is needed every hour of the day for cooking, drinking, washing dishes, clothes or bathing the kiddies. It is required for the stock in the barns and for washing the buggy or automobile.



### Empire WATER SUPPLY Systems

provide hot and cold water under pressure for every need around the farm home. Simply contrast your present slavish method of carrying water into the house for every need and the dirty water out again—carrying it for the horses, cattle and pigs to turning a convenient tap and drawing it rapidly under pressure, hot or cold, and always fresh.  
Empire Water Systems are redesigned in many sizes. There is one that will fit your farm needs—and you need it.

#### A FREE BOOKLET ON FARM WATER SUPPLY

Send for this illustrated descriptive booklet and Information Blank, fill out the latter and we will furnish you with full particulars and cost of an Empire System suited to your own home—with out obligation. Send a post card to-day

### EMPIRE MANUFACTURING CO., LIMITED

Head Office and Factory, London, Ontario.  
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110 Adelaide Street West, Toronto, Ont. 6

Boys and Girls —Do you want some money? You can earn it by acting as agents for THE FARMER'S ADVOCATE AND HOME MAGAZINE. Turn your spare time into money. Address: THE WILLIAM WELD CO., LIMITED, LONDON, ONTARIO



**THE  
MOLSONS  
BANK**

Incorporated in 1855  
Capital and Reserve \$9,000,000

Travellers can get cash anywhere for letters of credit issued by The Molsons Bank.

Safety — economy — convenience recommend them to all travellers.

Over 120 Branches

**Dye Old, Faded  
Dress Material**

"Diamond Dyes" Make Shabby Apparel  
Stylish and New—So Easy Too.

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

**QUEEN'S  
UNIVERSITY**

Kingston, - Ont.

**ARTS**

Part of the Arts course may be covered by correspondence

**SCHOOL OF COMMERCE**

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**MEDICINE**      **EDUCATION**

Mining, Chemical, Civil,  
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**SUMMER SCHOOL**      **NAVIGATION SCHOOL**

July and August      December to April

ALICE KING, Acting Registrar

**LIFT OFF CORNS!**

Apply few drops then lift sore,  
touchy corns off with  
fingers



Doesn't hurt a bit! Drop a little Eucalypti on an aching corn, instantly that corn stops hurting, then you lift it right out. Yes, magic!

A tiny bottle of Eucalypti costs but a few cents at any drug store, but is sufficient to remove every hard corn, soft corn, or corn between the toes, and the calluses, without soreness or irritation. Eucalypti is the sensational discovery of a Cincinnati genius. It is wonderful.

with the fingers, spread on the lower part of the cover, and quilted about 2 inches apart. As so many letters on making wool comforters have been published it is not necessary to repeat the method, but it may be mentioned that Miss Scarlett recommends rinsing the soapy water out (after scalding) two or three times with warm soft water, this to be followed by shaking the wool. Before putting on the top cover she shakes a little sachet or talcum powder over the wool. This should make the comforters smell very sweet and dainty. By the way a good way to keep the edges clean at top and bottom is to baste a piece of cheese cloth along. It should be hemmed so that it can be easily removed for laundering.

**Hair Coming Out.**

For M. W., Lincoln Co., Ont.  
So your hair is coming out after the "flu". What a train of evils that disease leaves behind it! Massage the scalp with the fingers every night and rub in a little cocoanut oil. When washing the hair use one of the green soap preparations to be bought at a drug store. The oil is useful for dry hair. Oily hair comes out sometimes too. For it an astringent tonic is required. This may be bought at a drug store. A Quinine Hair Wash is made as follows: Sulphate of quinine, 8 gr.; eau de cologne, 2 oz.; bay rum, 2 oz.; glycerine, 2 dr.; rose water, 3 1/2 oz.; alcohol, 4 dr. Dissolve the quinine in the eau de cologne, alcohol and bay rum; add the glycerine and rose water gradually

**Skim-Milk Cheese. Bread Pudding.**

Mrs. Myers, Norfolk Co., Ont., in a letter on wool comforters which is filed for future reference, "postscrips" a "bouquet" to Sandy Fraser. "He is all right," she says, "I'm glad the farmers are coming to their senses."

She also kindly encloses the following suggestions:

"I also saw about making skim-milk cheese. Don't get the curd too hot or it will be tough. When ready to put to press mix some perfectly clear fresh lard or margarine butter that takes the place of cream in the new milk; it doesn't need much oleo to be rich enough.

Here is a quick way to make bread pudding. Beat the egg and sugar, add the milk and set on top of the stove to boil, then toast slices of bread and butter them and lay on top of milk and eggs. When nearly boiling the bread will be soaked and ready to eat. Flavor with any spice you like."

**The Cookery Column**

**Steamed Rice.** Wash a small cup of rice and put it in a double boiler with a pint and a half of milk and a saltspoon of salt. Cook till creamy, add a teaspoon of butter and 3 tablespoons sugar. Stir lightly and serve.

**Cabinet Pudding.**—Soak 4 cups bread crumbs in 3 cups milk, add 3 beaten eggs, 1/2 cup sugar, 1/2 cup seeded raisins and 1/2 cup currants dredged with flour, 1 teasp. vanilla. Beat well and turn into a well-buttered mould or tin pail. Cover tight and boil steadily 2 1/2 hours. Eat with hard sauce (butter and sugar beaten together and flavored to taste).

**Oatmeal Muffins.**—2 1/4 cups flour, 2 teasp. baking powder, 1 teasp. salt, 2 tablesp. sugar, 1 egg, 1 cup milk, 1 cup cooked oatmeal, 1 tablespoon melted butter. Sift flour and baking powder together twice. Beat the egg very light, stir into it the salt, sugar and milk, then add the flour (sifted), and last the oatmeal and butter. Beat for a minute and bake immediately in gem pans or muffin rings in a hot oven for half an hour. The oatmeal should have been cooked rather dry.

**Molasses Drop Cakes.**—One cup molasses, 3 cups flour, 1/2 cup butter, grated rind of a lemon, 1 teasp. soda. Beat the ingredients together thoroughly and drop in spoonfuls upon a buttered tin. Bake 5 or 6 minutes in a quick oven.

**Boiled Salad Dressing.**—Mix 1 dessert spoonful of dry mustard, 1/2 teasp. salt, 1/4 teasp. white pepper, 1/4 teasp. celery salt, with 1 tablesp. butter. Stir thoroughly, then add the yolks of 2 eggs. Beat well; add 1 cup hot sweet cream or milk. Stir all together in a double boiler until it begins to thicken. Remove immediately from the fire. When cold add 2 tablespoons vinegar. Nice for any kind of vegetable salad, raw or cooked.

**Chocolate Cake.**—One cup sugar, 1 heaping tablespoon butter, 2 eggs, 1/2 cup milk, 1/2 cup chocolate, 1/4 cup boiling water turned on the chocolate, 1 1/2 cups flour, 2 teaspoons baking-powder, 1 teaspoon vanilla. Cream butter and sugar together, add the beaten eggs and other ingredients in order. Bake in 3 layers.

**Filling for the Cake.**—Two-thirds cup milk and 2 cups sugar. Boil 10 minutes, take from the stove and stir until it creams.

**Poached Eggs, Spanish Style.**—Heat an earthen dish slowly and melt in it a tablespoonful of butter; add 1/2 teaspoon salt, 1/4 teaspoon pepper and a small onion minced very fine. Or instead of onion use parsley and other sweet herbs. Drop in 6 eggs, one at a time. Do not stir, but let them brown a little. Turn carefully and brown on the other side. Serve in the same dish as hot as possible.

**Breakfast Fruit Cake.**—One pound cold boiled potatoes, mashed smooth. Add 1 lb. flour, 1/2 lb. finely-chopped suet, a little less than 1/2 lb. currants, and 2 oz. moist sugar. A teaspoonful of baking-powder should be mixed with the flour in its dry state. Roll out the dough to half-inch thickness and bake in a moderate oven. Cut into squares and serve hot.

**Drop Biscuit.**—One quart flour, 2 teaspoons baking-powder, a lump of lard size of a small walnut, 1 teaspoon salt. Sift the baking-powder in the flour, add the salt, rub the lard into the flour. Add enough cold water to make a stiff batter, from one pint to a pint and a half. Stir well. Drop in lumps on a greased pan. Bake in a hot oven.

**The Scrap Bag.**

**Chintz for Aprons.**

Chintz, figured or flowered, is said to make excellent working aprons, as it washes well and does not show every atom of soil caught while working.

**A Polishing Cloth.**

Keep the cloth with which you polish furniture in a tightly-closed can. This saves the oil and the cloth is always ready and safe. Oily rags sometimes cause fire by spontaneous combustion.

**Clinical Thermometer.**

Every home should possess a clinical thermometer, as it may prevent or show the necessity for calling a doctor.

**Dyeing a Grass Rug.**

A faded woven grass rug may often be dyed to look like new. Use hot dye, making it very strong, and rub in well with a brush, taking care to keep the design the same. Do this out of doors or somewhere where the rug can remain undisturbed until dry.

**Planting Corn, Beans, Etc.**

Plant corn, beans, cucumbers, tomatoes—in short all garden plants that flower—in blocks rather than in long rows. By doing this the bees are likely to work better among the blossoms, fertilization of the blossoms will be better, and there will be more fruit.

**Saving Cereals.**

After the dish in which the porridge for breakfast has been cooked there often remains a couple of spoonfuls clinging to the inside. Instead of soaking put the dish at the back of the stove until thoroughly dried out, then scrape off into a perfectly dry sealer. Add more from day to day, and when enough has been collected let the children eat it, with milk and sugar, instead of the usual "piece". They like it very much, as a rule. Also the "crispies" may be used as a substitute for crackers for craker pudding etc. Considering the scarcity of food-stuffs in the world not a spoonful of anything eatable should be wasted, and this suggests a way to use up material that hitherto has been almost universally wasted.

An old lady from the country and her small son were driving to town one day, when a huge motor car bore down upon them. The horse began to prance, and the old lady managed out of the buggy, screaming at the top of her voice. The chauffeur stopped and offered to help.

"That's all right," said the boy composedly, "I am in charge of the horse. You just lead it to the stable on the Continent."



**Let Cuticura Help You  
Look Like This**

Nothing better to care for your skin, hair and hands. The Soap to cleanse and purify, the Ointment to soothe and heal. Use them for daily toilet.

Soap 25c, Ointment 25 and 50c. Sold throughout the Dominion. Canadian Depot: Lyman, Limited, St. Paul St., Montreal.

Cuticura Soap shaves without stung.

**BOOST YOUR TOWN**

By Organizing a Band.

We will gladly supply you free of charge with full information as to the formation of a good band.

Complete Outfits Suggested  
for Bands.

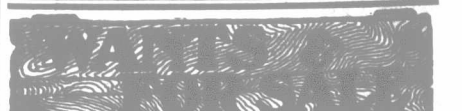
**THE WILLIAMS & SONS CO.**  
R.S. LIMITED

468 KING ST. WEST, TORONTO

**BALED SHAVINGS  
FOR SALE**

Now is the time to get in a stock. Don't wait until fall. Place your order early. Write

**A. COATES & SONS**  
Planing Mills & Lumber Yard  
Phone No. 66 - Burlington, Ont.



Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted and Pet Stock.

**TERMS**—Four cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 60 cents.

**COLLIE PUPS, BLACK; BRED FROM** heblers. Males \$10, females \$5. John Arnott, Bright, Ontario.

**CHOICE COLLIE PUPS, SCOTCH, FROM** extra good cattle dog. Write J. A. Campbell, Glanworth, Ontario.

**FOR SALE—SCOTCH COLLIE PUPS, R.** G. Rose, Glanworth, Ontario.

**FORTUNES IN FUR RABBITS—WE FUR-** NISH best quality breeding stock and pay \$6.00 to \$10.00 a pair for young. Turn your back yard and spare time into \$\$\$\$\$. Our big book, "Successful Rabbit Keeping," contract and valuable particulars—10c. Rabbit skins bought. Guinea pigs—Supplies—Breeders' Books. Meek & Court, 5173 W. Madison St., Chicago.

**FARM FOR SALE—150-ACRE FARM, SITU-** ATED at the Village of Tyrone, Township of Darlington, County of West Durham, Ontario, being Lots 11 and 12, Seventh Concession. About 120 acres under cultivation. Good grain farm; clay loam; well underdrained; running water; orchard; extensive farm buildings; grist mill on the corner of the lot. Post office, school and church within a few hundred yards of property. Farm being sold to wind up estate. Further particulars, kindly apply to Mrs. Ellen McLaughlin, 44 Brock Street East, Oshawa, Ont.

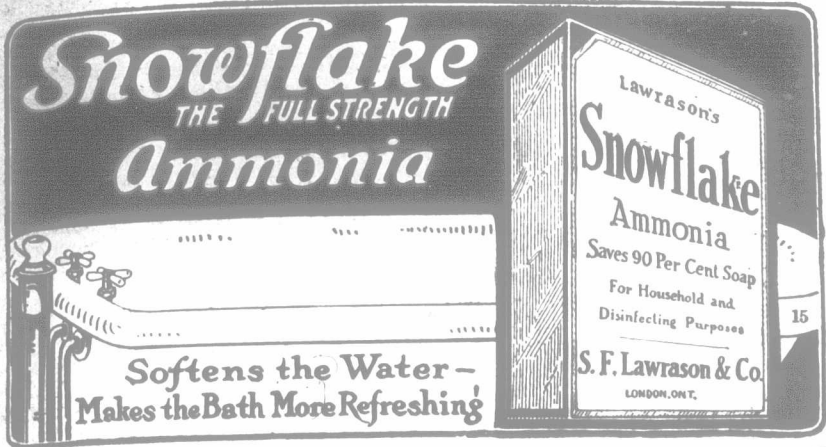
**PURE-BRED SCOTCH COLLIE PUPPIES** for sale, can be Registered. Apply to W. W. Irwin, Ripley, Ont.

**WANT TO HEAR FROM PARTY HAVING** farm for sale. Give particulars and lowest price. John J. Black, Advocate St., Chippewa Falls, Wis.

**WANTED—MARRIED MAN FOR LARGE** Shorthorn herd in the States, who knows how to raise calves and fit for show. A good place and permanent to qualified man. Furnished house, etc. provided. State wages and give references first letter. Box 29, Farmers' Advocate, London, Ont.

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**An Aberdeen - Angus Opportunity**

We wish to call attention to our consignment to the  
**ABERDEEN-ANGUS SALE**  
**June 2nd, at the Toronto Stock Yards**

Six choice females sired by our Imported Herd Bulls  
**Prince Bravo -4503-**  
**Rosard of Maisemore -2975-**  
**Ernesto -6663-**  
 and with calves at foot or bred to our Grand Champion Imported Bull  
**Benedictine Monk -17372-**

**LARKIN FARMS, - - - Queenston, Ont.**

**THIRTY-FIVE**  
**Scotch Shorthorns**  
 MY ENTIRE BREEDING HERD  
 AT PUBLIC AUCTION  
**Oakville, Ont., Wednesday, June 16**

Included in the lot are 20 cows in calf to Pride of Escanna, the great, young son of Right Sort (imp). The families are all straight Scotch and among them are several of Ontario's most noted breeding matrons. Along with the younger things are also listed—eight granddaughters of Right Sort. A half-dozen other promising well bred heifers and two young bulls make up the offering.

Watch these columns for full particulars next issue and get your name on the list for catalogue at once.

**A. G. Farrow - - - Oakville, Ont.**



**POULTRY AND EGGS**

Condensed advertisements will be inserted under this heading at four cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 60 cents.

**BRED-TO-LAY SINGLE-COMB WHITE LEG-HORN** eggs for hatching—Fifteen \$1.75, thirty \$3, nine dozen \$8. Carefully packed. Addison H. Baird, R. 1, New Hamburg, Ont.

**BABY CHICKS, HATCHING EGGS—BARRED** Rocks, White Rocks, White Wyandottes, Silver Wyandottes, White Leghorns, Rhode Island Reds; Incubator capacity 9,000. Satisfaction guaranteed. Write for price-list. Tay Poultry Farm, Perth, Ont., Box 244.

**BARRED ROCKS—LAYING STRAIN—SETTING** \$1.50. Mrs. Berry, 52 Queen Street, Guelph, Ont.

**BARRED ROCKS, MAMMOTH SIZE, AND** extra good laying strain. Eggs—\$2 for 15; \$3.50 for 30. Mrs. W. B. Annesser, Tilbury, Ont.

**EGGS FOR HATCHING, FROM BRED-TO-LAY** Barred Rocks; two dollars per fifteen; Wm. L. Hills, Wheatley, Ont.

**EGGS OFF MY GUELPH 1919 CHAMPIONS**—Strong bone, fancy barring; exceptional all-year-round layers, \$3 per 15. John Fenn, Platts-ville, Ont.

**IMPORTED ROUEN DUCKS—ELEVEN** eggs \$1. Ten Strain Rouens, eleven eggs \$2. A. F. Thomson, Thamesford, Ont.

**TRAP-NESTED BARRED PLYMOUTH** Rocks—One hen is in second place Ottawa Laying Contest. Hatching eggs, two-fifty per fifteen; four-fifty per thirty. Mating list free. W. J. Johnston, Drawer 246, Meaford, Ont.

**SUPERIOR BARRED PLYMOUTH ROCK EGGS FOR SALE**  
 From 5 Best Bred-to-Lay Families in both Countries.

Pen No. 1.—Thompson's Imperial Ringlet hens imported in the eggs, headed by Mr. Coldham's (Kingston, Ont.), Pedigreed Ringlet Cockerels, sired by Parks' prize bird, U.S.A., first dam—hen No. 71 laid 70 eggs in 72 days in mid-winter, 260 brown eggs of standard weight in one year. Price, \$5.00.

Pen No. 2.—Parks' Superior Ringlet strain, imported in the eggs. Of all bred-to-lays, Ringlets are supreme. Price \$5.00.

Pen No. 3.—The large, dark bred-to-lay strain of Rileys, imported in the eggs. As show birds, they have won the highest awards in U.S.A. Price, \$4.00.

Pen No. 4.—Thompson's large bred-to-lay strain, imported in the eggs, medium light in color, with quality and utility. Price, \$3.00.

Pen No. 5.—The O.A.C. bred-to-lay strain of Guelph; a hardy, handsome fowl, extra good winter layers. Price \$2.00.

15 per setting. Infertile eggs replaced at half price. Pullets or cockerel bred eggs as desired. Express prepaid.

**A. H. CROZIER, Box 16, Meadowdale, Ont.**

I WILL PAY YOU  
**29 CENTS**  
 a pound for live hens; any kind, any size. No deduction for shrinkage. I pay express within 200 miles of Toronto. Ship C.O.D. Crates loaned free. If you have 30 dozen eggs or more to sell at one time, write for prices.

**ALBERT LEWIS, 666 Dundas West, Toronto**

**Eggs Wanted—Live Hens Wanted**  
 Top prices paid for eggs. We require large quantities of heavy live hens at very top prices. Our specialty is poultry. Get the best market in Western Ontario for your poultry by selling to—

**C. A. MANN & CO., London, Ont.**  
 78 King St.,

**Baby Chicks**  
 Thoroughbred chicks of all standard varieties, safe arrival guaranteed. Delivery charges paid. Write for free illustrated catalogue and prices.

**CANADIAN CHICK HATCHERY, LTD., Hamilton, Ont.**  
 Box 192 G

**Current Events**

The Provincial Treasurer's Department (Ont.) announced a heavy increase in the taxation of amusement houses, to come into effect on June 1st.

With the end of the present term the Faculties of Education at the University of Toronto and Queen's University, Kingston, will pass out of existence. Hereafter all teachers will receive their training in the Normal Schools of the Province.

A steamer line between Montreal and Italy will soon be inaugurated.

The threatened strike of hydro men at Chippawa will not be brought on until the report of the Committee sent by the Legislature to investigate affairs there has been received. The men want to work 10 hours a day at \$5 a day.

On May 15th the U. S. Senate adopted, by a vote of 43 to 38, the Republican resolution declaring the state of war between the United States and Germany and Austria at an end.

Eleven persons were killed and a number of others wounded at Matewan, W. Virginia, on May 19th, in a battle between officers of the Baldwin-Felts Detective Agency and a number of coal miners. Eight of those killed, including the Major of Matewan, were with the detective force. The detectives, representing the coal concern, were attempting to evict some former employees from Company houses. Troops were at once sent to the district.

As a result of the revolution in Mexico, Gen. Obregon will be the only candidate for the Presidency. It is not yet known what has happened to Carranza, who fled to the hills of Vera Cruz.

Large numbers of troops are being sent from England to restore law and order in Ireland. At Dublin the dockers have refused to unload military cargoes, and the work is being done by soldiers. A compromise, however, is said to be brewing in regard to Irish affairs.

A price-smashing movement has set in in Europe and the United States, and, at time of going to press, is said to have reached Toronto. In the United States the area chiefly affected extends from the Mississippi Valley westward. In the cities of this area cuts of from 20 to 50 per cent. have been made, especially in ready-made clothing. The price of shoes has also been lowered. In Nebraska the women have been asked by that State's Price Commissioner, Mrs. Coran of Omaha, to notify their merchants that they will not pay higher prices for clothing next fall. At the International Association of Garment Manufacturer's Convention held at St. Louis, resolutions were adopted pledging the members to manufacture and sell garments at the lowest possible price. In Chicago the cost of pork has dropped.

The Moslems of India have passed resolutions condemning the terms of settlement proposed to Turkey.

Holland's first regular air-service began May 17th between London and Amsterdam.

Joan of Arc was canonized at St. Peter's Cathedral, Rome.

Signor Nitti of Italy, whose Cabinet resigned a fortnight ago, has accepted an invitation from King Victor Emmanuel to form a new Ministry.

Exchange of merchandise between Italy and Russia is to begin soon via the Black Sea. Italy to send medical supplies in return for wheat.

Farmer Whiffletree was riding along in his wagon with an extra wheel strapped to the back of it.

"What's the idea?" asked another farmer who met him. "Imitatin' them automobile fellers?"

"Nope; anticipatin' 'em," was the reply. —Boston Transcript.

**The Windrow**

There are 18,279 schools in the United States closed for want of teachers. "Small salaries," is given as the reason.

Great Britain is considering the re-establishment of the war-time measure by which the prices of boots and shoes were stamped on the soles, with a guarantee as to quality.

Russia before the War furnished three quarters of the world's flax. It is no wonder that linen is almost prohibitive in price.

In St. Louis, Mo., the other day a publisher, seeing a Negro driver refuse to punish an overloaded team, though ordered to do so by the owner of the horses, had a gold medal made and presented to him. The medal bore this inscription: "Presented to Tom Lett, a Colored Gentleman Who Would Not Whip a Stalled Team." Two gentlemen at least figured in this incident.—Our Dumb Animals.

The newly elected National Assembly of the Czechoslovak Republic, of which Thomas Masaryk is President, has 125 Socialist members out of a total of 300. President Masaryk is 70 years of age.

Princeton University plans to have its lectures printed and sent to ex-students as long as they live. The first lecture sent out is Prof. Edwin Grant Conklin's fine lecture on "Human Evolution," which those who attended the lecture course in connection with the Western University at London, Ont., had the privilege of hearing last fall.

**A Bird Sanctuary.**

THERE are thousands of "home grounds" bird sanctuaries in Canada; also a few more pretentious ones maintained by ardent bird-lovers. Also the question of making cemeteries into bird-sanctuaries has been discussed. Apropos of the whole subject the following clipping from an English newspaper, sent us by a correspondent, may be read with interest. It is entitled "A Bird Sanctuary in Northamptonshire."

"Thinking that our readers might like to hear something of what is being done here for feeding and caring for the wild birds, I write to tell you about it. Some time ago, I took in about four acres of parkland and planted it with every imaginable hardy shrub and tree which bear fruits or berries beloved of the birds. It is now a fascinating tangle of leaves, fruit, berries, seeds, and cones in their season, with wild trails and natural paths leading here and there in dell, bank, knoll or wilderness.

"I got the carpenter to build a little feeding pavilion of oak on oak posts, with a sloping shingle roof to keep off the snow and rain. Inside there are three tiers of oaken trays, in which I have placed every morning a mixture of chopped fat, suet, seed, oats, cracked Indian maize, meal and grit. Over this mixture we pour boiling water, and when it cools a little the trays are filled with it. On the ground beneath the pavilion we place a large, very shallow earthenware pan of fresh water. This is renewed twice a day in frosty weather and every morning otherwise. Fresh water is as necessary as food to our bird friends, especially in cold weather.

"On the crossbars that support or uphold this structure I hang cocoanuts, stuffed with suet. Our acrobatic friends, the tits, when regaling themselves on these, perform wondrous antics.

"This bird-feeding pavilion stands in front of our dining-room windows, and it is quite delightful to see the joy and surprise of the many varieties of birds which visit it. I have also invented feeding troughs for the birds, which are roofed over so as to protect them whilst feeding from the snow and rain. These troughs are placed in sheltered corners of the gardens. On almost every tree I have hung up great feeding sticks, with deep, round holes which are filled with fat and seeds regularly. In the wilderness I hang up meaty

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are for your skin,  
 Soap to cleanse  
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 to wind up estate,  
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 cate, London, Ont.



bones on the tree branches and other edibles at which the birds like to peck. "Outside each of the bedroom windows I have had oak trays put up on supports of iron. On these trays food and fresh water are placed every morning for the birds. I have also put several hundreds of nesting-boxes in the trees and in many quiet retreats all over the grounds, so I think and hope the birds are happy here.

"In America we always gave the birds a Christmas tree, and I have tried to keep up the custom in my adopted home. Our servants are very good to the birds, and outside the windows many birds feed without fear, or chatter, gossip, and sing while the maids are sewing close by. Often when I am walking in the garden the birds come so near that I can touch them. They sing to me, and I learn many beautiful secrets from them."

IRENE OS. OOD,  
Guilborough Hall, Northampton.

### Questions and Answers. Miscellaneous.

#### Mating Birds.

I have a splendid young rooster. Would you advise me to keep him for another year, and breed him to his own offspring next spring?

2. I have a goose setting, what will I have to do after the goslings are hatched? Should I keep the gander penned up? Would it be all right to keep the gander for another year?

Ans.—1. We would not advise keeping the bird to mate with this year's chicks. It would be a little too close in-breeding for best results. You might keep him and mate him with the older hens.

2. You will possibly find that both the goose and gander resent your appearance about the time the goslings are hatching. After they are out, the goose and goslings may be kept in a small enclosure for a time and fed a mash consisting of shorts and finely-ground oats. They will require water to drink and plenty of fresh grass. Once they get strong they may be allowed their freedom. During the summer geese live principally on grass and what water insects they can find in the stream, if one is available. It should be all right to keep the gander for another year.

"What is a swimmin'hole?"  
"A body of water entirely surrounded by boys."—New Guide.

# LISTER MILKING MACHINE



BRITISH MADE

THE LISTER MILKER has for ten years been in extensive use all over the British Empire. Built by a firm which has been for over 50 years engaged in the manufacture of Farm and Dairy Machinery. In general use in Canada since 1913.

### TRIED-TESTED AND APPROVED BY THE CANADIAN FARMER

Don't speculate in a milker. Invest your money in the "Lister." For operating the LISTER MILKER we furnish the world-famed LISTER ENGINE, built in the same factory. Write for Catalogue and Testimonials.

Melotte and Premier Cream Separators  
Lister Grinders and Silo Fillers  
Avery Farm Tractors

R. A. LISTER AND CO. (Canada) Limited  
TORONTO AND WINNIPEG

## FARMERS—Bank Here By Mail

Just mail your cheques to us—we deposit them to your credit and send you a prompt acknowledgment.

If you need cash we cash your cheques by mail, too, sending you the money in a registered letter.

We understand the farmer's problems and gladly assist him in every way possible.

We will welcome your account.



### THE BANK OF NOVA SCOTIA

Paid-up Capital \$ 9,700,000  
Reserve Fund - 18,000,000  
Resources - - 220,000,000

We invite your account. Special facilities for Banking by Mail 310 Branches. General Office Toronto.

## SUBSCRIBERS!

FREE SUBSCRIPTION for each one.

You value highly and appreciate *The Farmer's Advocate and Home Magazine*. Send us the names of some New Subscribers, with \$1.50 for each, and we will give you **SIX MONTHS**

## The Comfort of a Bank Account

**DOUBT AND ANXIETY** about household finances give way to certainty and satisfaction when you have a growing savings account. You know by a glance at your bank book where you stand and the progress you are making. The stubs of your cheque book give a record of your payments. The cheques are in themselves sufficient receipts.

Start saving to-day by opening an account in the Bank of Toronto, even if your first deposit is only one dollar. It's a comfort to know it is there and to watch it grow.

Our household savings accounts are constantly growing. We extend every possible courtesy to depositors.

THOS. F. HOW  
General Manager

# THE BANK OF TORONTO

Incorporated 1855

### Gossip.

#### A Chance to Obtain Some Espoir Marshall Blood.

Those attending the Canadian Aberdeen-Angus Association sale, at Toronto, on June 2, will have a splendid opportunity to build a foundation on blood transmitted from that excellent bull, Espoir Marshall, which won the championship at Toronto last fall, and the junior championship at the International Live-Stock Exposition, Chicago. Howard Fraleigh, of Forest, is contributing a typey cow with a calf at her side and in calf again to Espoir Marshall. This is a small herd in itself which purchasers should not overlook. He is also contributing another cow safely settled to the service of Espoir Marshall, and accompanying her are two of her get, a yearling and a two-year-old heifer. The two-year-old heifer has already been bred to this famous young bull. In addition to this splendid offering, Mr. Fraleigh is putting in an imported bull, slightly under one year old. There will be a splendid opportunity here for someone to buy some good Aberdeen-Angus breeding stock.

#### Sale Dates.

May 27, 1920.—John R. Archibald, Seaforth, Ont.—Holsteins.

June 2, 1920.—Can. Aberdeen-Angus Association, Union Stock Yards, Toronto, Ontario.

June 3, 1920.—Hood Farm, Inc., Lowell, Mass.—Jerseys.

June 3, 4 and 5, 1920.—Holstein-Friesian Association of America, St. Paul, Minn.

June 9, 1920.—International Sale of Milking Shorthorns, Euclid, Minn., U. S. A., R. R. Wheaton and A. E. Palmer.

June 9, 1920.—Sunnybrook Farms.—Holsteins Dispersal, North Toronto, Ont.

June 16, 1920.—A. G. Farrow, Oakville, Ont.—Shorthorns.

June 15, 16, 17 and 18, 1920.—Live-Stock Breeders' Association of the District of Beauharnois, Limited, Ormstown, Quebec.

June 23, 1920.—MacVicar Bros., Belmont, Ont.—Ayrshires.

June 23, 1920.—J. Andrew Knox, Norwood, Ont.—Scotch Shorthorns.

June 24, 1920.—David A. Ashworth, Denfield, Ont.—Ayrshires, Horses, Yorkshires, etc.

June 25, 1920.—W. H. Shaw, Newmarket, Ont.—Holsteins.

### Potato Growing Contests.

Owing to the lateness of the present season the date for the closing of entries in the Boys' Potato Growing Contests in the Counties of Carleton and Russell have been indefinitely extended. As previously announced, these Contests are being financed by a fund, left for the purpose by the late R. B. Whyte, of Ottawa. Excellent cash prizes as well as a scholarship at the Agricultural School at Kemptonville are offered as financial inducement to the boys in each county. Each competitor is required to grow exactly one-tenth acre of potatoes. His plot is inspected by an expert during the growing season and reported on to the Committee in charge. A report providing certain information is sent in later by the boy himself. An exhibit of one bushel of potatoes is also to be placed at the County Fair. A pamphlet giving the best methods to follow in the production of maximum yields of potatoes is sent each contestant. This Contest provides an excellent opportunity of instructing the boy on his own farm as to how to do an important piece of work well.

An accurate record is kept of the cost of producing the potatoes. This includes value of time of competitor as well as that of horses employed. Finally there is ascertained the cost of producing a bushel of potatoes and the profit which may be expected from growing potatoes on a substantial scale. The Committee is anxious that the Contest this year shall be an outstanding success. Up to the present the number of boys who have entered the Competition so far this year is small, but it is hoped that by extending the date of entry, many more may come in. Those desiring further information should communicate with the Secretary, L. H. Newman, 114 Vittoria Street, Ottawa.



# ON! ON!! ON!!! TO ST. PAUL!

## The Minnesota National Guaranty Sale

**254  
HEAD**

THE BEST HOLSTEINS FROM  
THE BEST HERDS IN THE  
UNITED STATES and CANADA

**122  
Consignors**

### Canada's Quota 12 Head

SALE STARTS AT  
9 A.M. EACH DAY

Consigned by  
**A. C. HARDY, Brockville, Ont.**

ALL ANIMALS SOLD  
UNDER A 60-90 DAY  
RETEST GUARANTY  
AGAINST TUBERCULOSIS

at the  
**Minnesota State Fair  
Grounds**

**DOMINION EXP. FARMS,  
Agassiz, B. C.**

*King Waldorf Sylvia*  
a 7-months-old son of Champion  
Echo Sylvia Pontiac from the 28-lb.  
2-year-old, Lady Waldorf Sylvia.  
Second dam a 36-lb. daughter of a  
36-lb. dam.

**J. M. STEVES, Steveston, B. C.**

*S.O.C.B. Nora Mechthilde Canary*  
a yearling heifer sired by son of the  
only 1,500-lb. cow, Duchess Skylark  
Ormsby. Her dam has over 600 lbs.  
butter as a 2-year-old.

*Agassiz May Echo Segis*  
a sister to May Echo Sylvia from a  
dam with an R. O. M. record of 842  
lbs. butter from 19,000 lbs. milk as a  
2-year-old.

*Winterthur Ormsby*  
a 14-months-old son of Bess Johanna  
Ormsby—she the only 40-lb. heifer  
to make a 1,000-lb. year record.

*F.C.J.P. Nora*  
a 2-year-old daughter of Sir Canary  
Jewel Pietje from a dam with a 2-  
year-old record of 673 lbs. In calf  
to a grandson of Duchess Skylark  
Ormsby, the world's champion.

**COLONY FARM, Essondale Farm, B. C.**

**R. M. HOLTBY, Port Perry, Ontario**

*Colony Netherland Segis Newman*  
a senior 3-year-old with 849 lbs. butter from 20,104 lbs.  
milk. Sired by Aaggie Cornucopia Newman and out of a  
33-lb. granddaughter of King Segis. In calf to a son of  
Madam Posch Pauline.

*Plus Sylvia Posch*  
a 27-lb. 3-year-old sister to May Echo Sylvia. She made  
her 27-lb. record from 605.9 lbs. milk. Her dam has a  
year record of 753 lbs. butter from almost 17,000 lbs.  
milk.

*Colony Segis McKinley*  
a daughter of the heifer described above. sired by Colony  
McKinley Segis De Kol. Due shortly after sale by Aaggie  
Cornucopia Newman.

### THE BLOOD OF MAY ECHO SYLVIA

In the Canadian consignment to this greatest of great sales, there will be three sisters, three granddaughters, and a wonderful grandson of May Echo Sylvia, the champion milk producer of the world.

*This first Co-operative National Sale will be held in connection with the Annual Meeting of the*  
**HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA**

**June 3, 4, 5, 1920** All Canadian Breeders Invited **St. Paul, Minn.**

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# BUY "IDEAL" FENCE NOW!

If you want sure delivery of fence we suggest that you get your order in now. We were fortunate in receiving an allotment of steel wire which, until exhausted, will enable us to fill all orders immediately. In asking you to place your order now we do so to safeguard you against probable disappointment. It's not a question of late delivery but no delivery that you must guard against. This is true of any wire fence. Orders will be shipped promptly on receipt. Get yours in early.

## Heavy "IDEAL" Fence

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

- No. 4330** 4 line wires, 33 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 11, 11, 11. Per Rod.....
- No. 5400** 5 line wires, 40 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 10, 10, 10. Per Rod.....
- No. 6300** 6 line wires, 30 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 4, 5, 6, 7, 8. Per Rod.....
- No. 6400** 6 line wires, 40 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 7, 7, 8, 9, 9. Per Rod.....
- No. 7400** 7 line wires, 40 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 5, 6, 6, 7, 7½, 8½. Per Rod.....
- No. 7480** 7 line wires, 48 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 5, 6½, 7½, 9, 10, 10. Per Rod.....
- No. 8420** 8 line wires, 42 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 6, 6, 6, 6, 6, 6. Per Rod.....
- No. 842** 8 line wires, 42 inches high, uprights 16½ inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 6, 6, 6, 6, 6, 6. Per Rod.....
- No. 8470** 8 line wires, 47 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 4, 5, 6, 7, 8, 8, 9. Per Rod.....
- No. 847** 8 line wires, 47 inches high, uprights 16½ inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 4, 5, 6, 7, 8, 8, 9. Per Rod.....
- No. 935** 9 line wires, 35 inches high, uprights 16½ inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 3, 3, 3, 4, 5, 5, 6, 6. Per Rod.....
- No. 948** 9 line wires, 48 inches high, uprights 16½ inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 6, 6, 6, 6, 6, 6, 6. Per Rod.....
- No. 9481** 9 line wires, 48 inches high, uprights 13 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 3, 4, 5, 6, 7, 7, 8, 8. Per Rod.....
- No. 9500** 9 line wires, 50 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 4, 4, 5, 6, 7, 8, 8, 8. Per Rod.....
- No. 950** 9 line wires, 50 inches high, uprights 16½ inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 4, 4, 5, 6, 7, 8, 8, 8. Per Rod.....
- No. 1050** 10 line wires, 50 inches high, uprights 16½ inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 3, 3, 3½, 4½, 5½, 6½, 8, 8, 8. Per Rod.....

Old Ontario south of North Bay	New Ontario and Quebec	Nova Scotia, New Brunswick, P. E. Edward Island
41c	43c	44c
52c	55c	57c
55c	58c	60c
60c	63c	65c
67c	70c	72c
70c	73c	75c
75c	78c	81c
80c	83c	86c
76c	79c	82c
83c	86c	89c
88c	92c	95c
92c	96c	\$1.00
\$1.04	\$1.08	\$1.12
85c	89c	92c
92c	96c	\$1.00
\$1.00	\$1.04	\$1.09

## MEDIUM HEAVY "IDEAL" Fence

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

- No. 630** 6 line wires, 30 inches high, uprights 16½ inches apart. All Hard Steel Wire, evenly galvanized. Spacing 4, 5, 6, 7, 8. Per Rod.....
- No. 641** 6 line wires, 41 inches high, uprights 16½ inches apart. All Hard Steel Wire, evenly galvanized. Spacing 7, 7, 8, 9, 10. Per Rod.....
- No. 6410** Same as Style No. 641 with uprights 22 inches apart. Per Rod.....
- No. 726** 7 line wires, 26 inches high, uprights 13 inches apart. All Hard Steel Wire, evenly galvanized. Spacing 3, 3½, 4, 4½, 5, 6. Per Rod.....
- No. 7261** Same as Style No. 726, but with uprights 8 inches apart. Per Rod.....
- No. 7266** Same as Style No. 726, but with uprights 6 inches apart. Per Rod.....
- No. 742** 7 line wires, 42 inches high, stays 13 inches apart. All Hard Steel Wire. Spacing 6, 6, 7, 7, 8, 8.
- No. 834** 8 line wires, 34 inches high, uprights 13 inches apart. All Hard Steel Wire, evenly galvanized. Spacing 3, 3½, 4, 4, 5, 6½, 8. Per Rod.....
- No. 936** 9 line wires, 36 inches high, uprights 13 inches apart. All Hard Steel Wire, evenly galvanized. Spacing 3, 3½, 4, 4½, 4½, 5, 5½, 6. Per Rod.....
- No. 949** 9 line wires, 49 inches high, uprights 13 inches apart. All Hard Steel Wire, evenly galvanized. Spacing 4, 4, 5, 6, 7, 7, 8, 8. Per Rod.....
- No. 1150** 11 line wires, 50 inches high, uprights 13 inches apart. All Hard Steel Wire, evenly galvanized. Spacing 3, 3, 3, 4, 4, 5, 6, 7, 7, 8. Per Rod.....
- No. 1448** 14 line wires, 48 inches high, uprights 13 inches apart. All Hard Steel Wire, evenly galvanized. Spacing 2½, 2½, 2½, 2½, 2½, 2½, 3, 3½, 4, 5, 5½, 5½, 6. Per Rod.....

Old Ontario south of North Bay	New Ontario and Quebec	Nova Scotia, New Brunswick, P. E. Edward Island
41c	42c	43c
42c	43c	44c
40c	42c	43c
45c	46c	48c
53c	55c	57c
59c	61c	63c
51c	54c	56c
54c	56c	57c
56c	58c	61c
62c	64c	66c
71c	73c	75c
83c	85c	88c

## "IDEAL" Poultry Fence

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

- No. 1848** 18 bar, 48 inches high, cross-bars 8 inches apart. All Hard Steel Wire, evenly galvanized. Spacing from bottom up, 1½, 1½, 1½, 1½, 2½, 2½, 2½, 2½, 3, 3, 3½, 3½, 4, 4½, 5. Per Rod.....
- No. 2060** 20 bar, 60 inches high, cross-bars 8 inches apart. All Hard Steel Wire, evenly galvanized. Spacing from bottom up, 1½, 1½, 1½, 1½, 1½, 1½, 2½, 2½, 2½, 2½, 3, 3, 3½, 3½, 4, 4½, 5, 6, 6. Per Rod.....

\$1.05	\$1.10	\$1.15
\$1.15	\$1.20	\$1.25

## "IDEAL" Lawn Fence and Lawn Gates

Write for Price List and Catalogue.

### Improved "IDEAL" Farm Gates

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

Length, feet	Height, inches	Old Ontario south of North Bay	New Ontario and Quebec	Nova Scotia, New Brunswick, P. E. Edward Island
3	36	\$4.00	\$4.20	\$4.40
3	42	4.25	4.45	4.70
3	48	4.50	4.75	4.95
3½	36	4.25	4.45	4.80
3½	42	4.50	4.75	4.95
3½	48	4.75	5.00	5.25
4	36	5.00	5.25	5.50
4	42	5.25	5.50	5.75
4	48	5.50	5.75	6.00
6	42	8.00	8.50	9.00
6	48	8.75	9.20	9.65
12	42	9.50	10.00	10.45
12	48	9.75	10.25	10.75
14	48	10.25	10.75	11.30
16	48	11.00	11.50	12.00

## Improved "IDEAL" Stock Gates

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

Carried in stock in following sizes only:

12 feet long, 51 inches high, each.....	\$9.00	\$9.45	\$9.90
13 feet long, 51 inches high, each.....	9.25	9.70	10.20
14 feet long, 51 inches high, each.....	9.50	10.00	10.45

### Fence Supplies, Brace Wire and Barb Wire

Ideal Steel Posts, 1½x1½x7' long.....	\$0.60	\$0.65	\$0.68
Ideal Fence Stretchers, each.....	12.50	13.75	14.20
Hand Stretcher, each.....	1.50	1.65	1.75
Universal Post Hole Digger, each.....	3.50	3.50	3.60
Galv. Staples in 25-lb. boxes.....	2.20	2.30	2.40
Galv. Staples in 100-lb. boxes.....	8.00	8.30	8.60
No. 9 Brace Wire, per 25 lbs.....	2.10	2.40	2.50
No. 9 Coiled Spring Wire, per 100 lbs.....	7.40	7.70	8.00

## Barb Wire

4-pt. 4" Galv. Cabled, per 100 lbs.....	\$8.00	\$8.25	\$8.50
4-pt. 6" Galv. Cabled, per 100 lbs.....	6.70	6.95	7.20
2-pt. 7" Galv. Cabled, per 100 lbs.....	6.40	6.65	6.90

**Our Guarantee**—"Ideal" Fence is guaranteed to be made as represented. If you are not satisfied with "Ideal," return it at our expense and get a new lot or your money back. This guarantee covers everything—no conditions—no loop-holes.

Reference—The Canadian Bank of Commerce.

**Ideal Fence and Spring Company of Canada, Limited**  
1650 McDougall St. WINDSOR, ONTARIO 435 Coristine Bldg., Montreal, Que.

## Gossip. A Correction.

In the Sunnybrook Farms advertisement in our issue of May 20th the number of head selling in their dispersion sale is given as 60 head, and the time for opening the sale was mentioned as 1 p.m. The increase in calves however, will bring the number up to sixty-five, and the sale will begin at 10.30 a.m. instead of 1 p.m., as previously advertised. Mr. Kilgour has also instructed us to mention that motor conveyances will be running from the end of Yonge Street city car line to the farm at short intervals during the morning of the sale.

### Sunnybrook Sale June 9.

As will be noted by the advertisement elsewhere in these pages, the Sunnybrook Farms Holstein dispersal is advertised for Wednesday, June 9, and unless the unexpected happens we should see on this date an excellent average for this noted herd. Sunnybrook Farms has been the scene of many a Provincial Plowing Competition, where thousands came year after year to spend the day as Mr. Kilgour's guests, but it may well be said that it received at all times equal publicity through its large herd of Holstein cattle. In summarizing the offering here, it is not our intention to give individual mention to every worthy member of the herd, but a line or two regarding the sires that have been in use, etc., will no doubt be of interest to our dairy readers at least. We might begin with the daughters of the first herd sire used at Sunnybrook, Count Faforit Segis. Although used in the early days the impression left by this sire on the herd is still much in evidence in each of his fifteen daughters selling. In breeding he can probably be best described as a son of a brother to Segis Fayne Johanna, the world's first 50-lb. cow. Other sires following him were Sir Natoye Oakland, Sir Lyons Hengerveld Segis, and last but not least, the present herd sire, Highland Pontiac Sylvia. Sir Natoye Oakland, it will be remembered was got by the good breeding bull, Oakland Sir Maida, which was also the sire of the 31.42-lb. cow, Reta De Kol Maida, while the dam of Sir Natoye Oakland was Natoye De Ko 14th, whose record was 31.13 lbs. of butter and 704 lbs. of milk. There are fifteen daughters of this sire selling the highest record one being Victoria Posch De Kol, a 28.10-lb. cow which will be his highest record daughter selling. The daughters of Sir Lyons Hengerveld Segis are not so numerous, but the several listed will be a feature of the offering on June 9. This sire is a 33.31-lb. bred son of the great King Segis, or one of the highest record sons of this noted sire that has ever been used in a Canadian herd. The mature cows selling are not numerous although two of the lot have milked above 100 lbs. per day, one of these 100-lb. cows being Inka Sylvia Maida, illustrated in the advertisement, and a sister to the sire of the great May Echo Sylvia. Further, May Echo Sylvia blood is added to the offering by the use of the young sire, Highland Pontiac Sylvia, already mentioned above. As will be seen by his illustration, also shown in the advertisement, he is an excellent individual, and his service in the herd should increase the values considerably. He is sired by Avondale Pontiac Echo, the \$60,000 son of May Echo Sylvia, and his dam, Tidy Albino Echo, is a 31.92-lb. four-year-old cow with 587.9 lbs. of milk for the seven days, and is again under test. The young bull calves by this sire will be sold with their dams, but the heifer calves by him will be retained to form the nucleus of a new herd. Catalogues listing the entire offering will be sent on request.

## Questions and Answers. Miscellaneous.

**Useless Binder.**  
A binder which I bought at a sale I find is absolutely useless. Would I, or the man who backed my note, be obliged to pay for it under these conditions?  
A.W.  
Ans.—As you had an opportunity to see the binder at the time of sale, you would be held responsible for the price, unless the owner had guaranteed it to be in satisfactory working order at the time of the sale.



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 ...aranteed it to be  
 ...order at the time



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means the same attractive styles—the same easy comfort—the same sound economy—that Fleet Foot means in the city.

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 The Best Shoe Stores  
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34

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30x3 1/2	\$13.50	\$16.50
32x3 1/2	17.00	26.00
31x4	18.00	30.00
33x4 1/2	28.00	33.00
34x4 1/2		
35x4 1/2		

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 The safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scar or blemish. Every bottle sold is warranted to give satisfaction. Price \$1.75 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. The Lawrence-Williams Co., Toronto, Ont.

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**HEAVES**

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 "I want a box of your Capital Heaves Remedy, my horse has not got the heaves but a cough and I never saw anything work as speedy as your remedy I got from you two years ago."  
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 Test it before you buy it. We will send you a full week's treatment free for 5c. to cover cost of postage and packing.  
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 750 COOPER STREET - OTTAWA

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**For Good Speed Horse**

ONE SPANISH JACK, 2 years old past, ready for service this season. This will be a very large Jack, as he comes from the McCORD strain, noted as the most popular strain of Jacks in the world. Also, two Jennies, first class breeders. These were all bred by Cooke Bros., of Lexington, Ky., U.S.A., the largest breeders of Jacks and Jennies in the world, and must be sold, as the proprietor has sold all his farms.  
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 Germination—90 to 100%

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Irish Cobbler	\$7.50 per bag
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 Ask for prices on seed of all kinds, including Linsed Oil Cake Meal, Cotton Seed Meal, Schumacher Dairy Feed. Poultry feed of all kinds, etc.

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**Questions and Answers.**  
 Miscellaneous.

**Chicks go Blind.**

1. What is the cause of young chicks going blind? Quite a number are dying. We have been using louse killer. Would this cause the trouble?

2. We have a horse with a very long mane. Would it be better off? H. D.

Ans.—1. The louse killer is, we believe, the direct cause of the blindness and death of the chicks. This material should not be applied later than two or three days previous to hatching, and then not until the chicks are two or three weeks old. If lice bother the young chicks, rub a little lard on their heads and under their wings.

2. Many people like to see a horse with a good mane. It will not hurt the horse to have it removed.

**Curing Meat.**

What part of the pig should be used for best breakfast bacon? How should it be cured? How would you suggest putting pork away in the fall so it will keep during the winter and the following summer?

Ans.—When cutting up the carcass, the side may be cut lengthwise. This will leave one half considerably thinner than the top half. This thin part is usually used for bacon. The part of the side nearest the back can be used as bacon or else roasted. A mixture of 4 lbs. salt, 1½ lbs. brown sugar, 2 ounces of pulverized saltpetre may be used for every 100 lbs. of meat. This should be applied three times for hams and shoulders and twice for bacon. Rub it in well at intervals of about a week. The pork for winter and summer use may be cured the same way and then smoked.

**Dumb-Waiter.**

How can a dumb-waiter be constructed from pantry to cellar? How could a pantry be arranged for convenience and labor-saving? G. A. G.

Ans.—Dumb-waiters may be constructed in different ways. As a rule, they are made about 20 by 24 inches in size, extending from the cellar to the pantry. Several shelves are constructed to slide up and down in this shaft. By having the shelves attached to a weight, the raising and lowering the waiter is facilitated. It is very handy to have the dumb-waiter extend to the ceiling of the pantry and have the shelves come waist high. Another way is to have the top of the waiter as a portion of the floor. The shelves are built in below and are raised and lowered by means of suitable weights. One-inch pine may be used for constructing the shaft and shelves. By having a dumb-waiter, shelves for holding cooking utensils and materials, flour bins, etc., built in the pantry it aids in saving steps when doing the work.

**Native Wines.**

What procedure is necessary in order to obtain a permit to make and sell native wines? A. G.

Ans.—Application for permit for the making of native wine may be made direct to the chairman of the Provincial Board of License Commissioners, 46 Richmond Street West, Toronto. We understand that no fee is charged for this permit. Section 44, of the Ontario Temperance Act is to the effect that no manufacturer of native wines shall sell or offer for sale within the Province any such wines until he has procured from the Board a permit authorizing him to do so. Such wines shall only be sold upon the premises on which they are manufactured, in quantities of not less than 5 gallons in each cask or vessel at any one time, and when sold in bottles, not less than one dozen bottles of at least three half-pints at any one time. The permit is valid during the current license year in which it is issued. The applicant for a permit must file with the Board a statement giving the name of the manufacturer, the premises where the business is carried on and the capacity of the plant. Each month a sworn statement, giving the name and address of the person to whom the wine is sold, together with a statement of the quantity of wine sold, must be filed with the Board.

**Are your sows prepared to raise thrifty pigs?**

Do you know whether your sows are properly nourished before and after the pigs are born? Are they getting the right elements in correct proportions for best results? Unless the diet is properly balanced, the sow's milk flow will be cut down, particularly in the rear udders. You need not have runts. A properly balanced ration will prevent them.

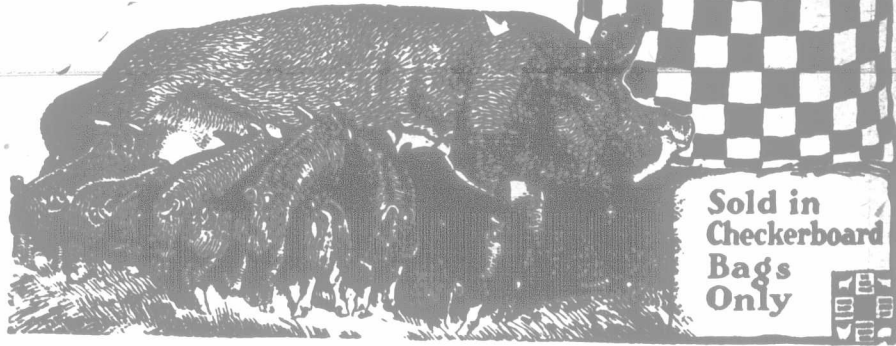
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has just the right elements for sows and pigs. It regulates the sow's system, and puts her in the best of trim for big production. It puts rich, red blood in her veins, the basis of an abundance of rich milk, sufficient for all the litter. It starts the pigs off right to make market-toppers. This is accomplished by the scientific balance of proper ingredients:—

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**SPECIAL** We have made an extra good Team Harness, No. 640, at a special price. **\$57**  
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We have in our stables a select lot of Percheron and Belgian stallions and mares, running in age from 4 to 7 years. Our stallions weigh from 1,900 to 2,200 lbs., and mares from 1,600 to 1,850 lbs.

Use good breeding stock now and be ready to meet the demand which is sure to exist. All horses have been Government inspected, and we guarantee them to be satisfactory, sure breeders; if they are not, you do not have to keep them.

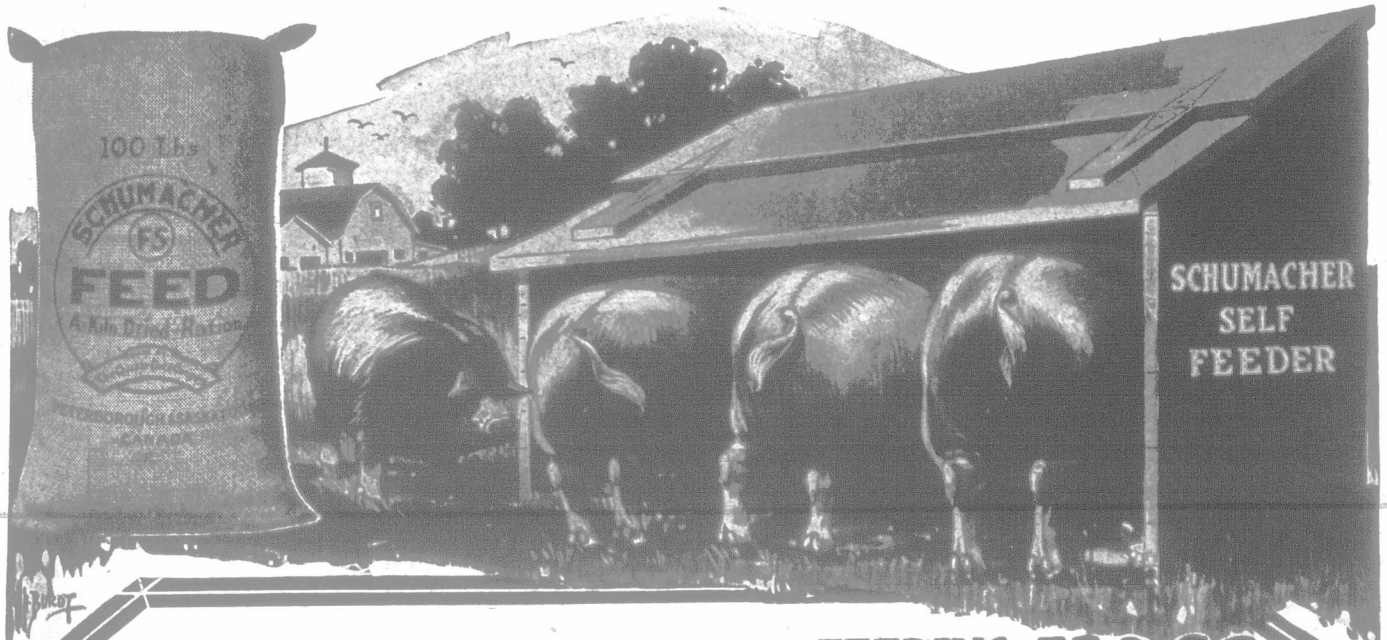
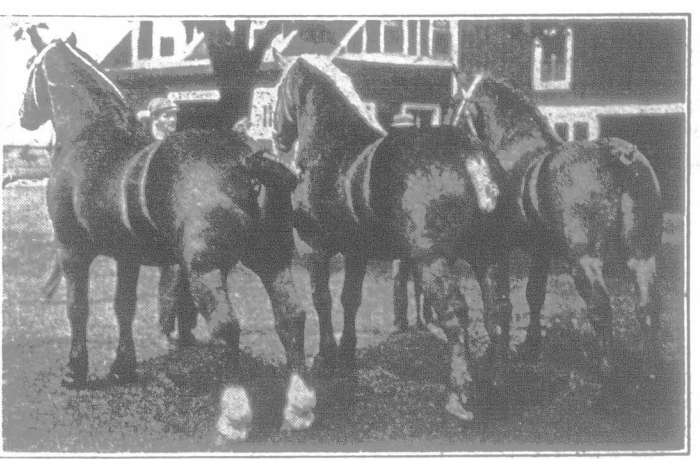
We will sell on time to responsible parties.

Look up our winnings at the Western Fair, Guelph Winter Fair and Ottawa Winter Fair. These will give you some idea as to the class of horses we are offering.

**G. R. CROUCH,** Vice-President La Fayette Stock Farm Company of Canada, Limited, **LONDON, CANADA**

The Company is composed of J. Crouch, President; G. R. Crouch, Vice-President and Treasurer; R. G. Ivey, Secretary; Directors, Wm. Bernard and Jas. McCartney.

A GROUP OF PERCHERON GELDINGS



## A Better Cheaper FEEDING PLAN FOR HOGS

The reason SCHUMACHER FEED is known as "The Ideal Growing and Developing Feed for Hogs"—the reason that it is fed by so many successful hog breeders, feeders and farmers—the reason more SCHUMACHER FEED is made and sold than all other feeds combined, is because it produces the much desired big, stretchy framed type—building a foundation on which the feeder can put on more pounds of pork resulting in more profit. It meets the needs of young or mature hogs so completely and produces rapid, healthy growth so economically that it has taken its place as the leading growing and developing hog feed.

# SCHUMACHER FEED

produces pork more economically because it is composed principally of a mixture of specially selected by-products of Wheat, Oats, Barley, Corn and Linseed Meal finely ground and scientifically blended to exactly meet requirements for growing and developing hogs.

It supplies certain mineral contents for producing big bone and stretchy frames — that's why SCHUMACHER fed hogs are always big, strong framed animals — have a frame that will carry the maximum pounds of pork when finishing for market.

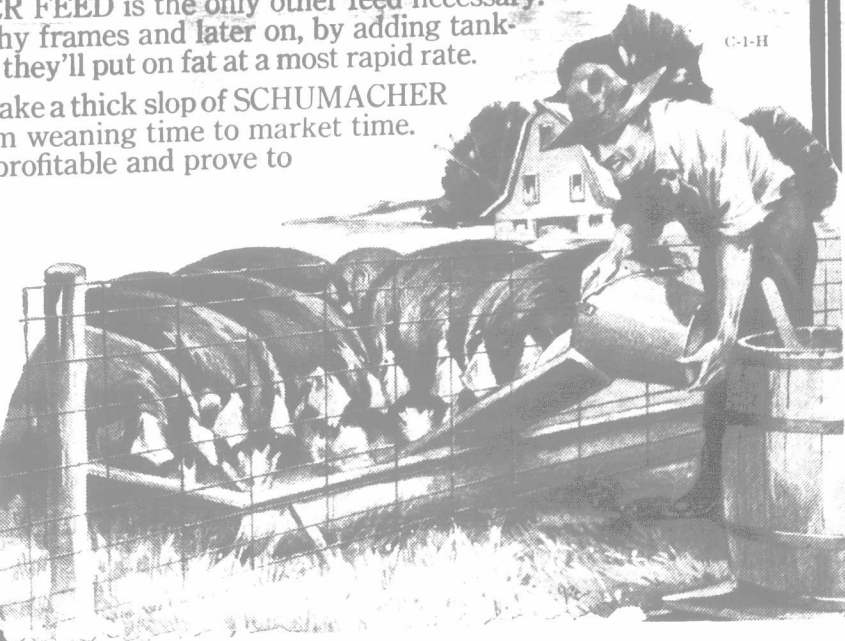
### Try This Feeding Plan on Your Hogs This Year

SCHUMACHER FEED can be successfully fed in self-feeders or in the slop. For best results in self-feeders, keep self-feeder where hogs can have access to it at all times. When hogs are on pasture, SCHUMACHER FEED is the only other feed necessary. They will develop big, strong, healthy frames and later on, by adding tankage to your self-feeder compartment, they'll put on fat at a most rapid rate.

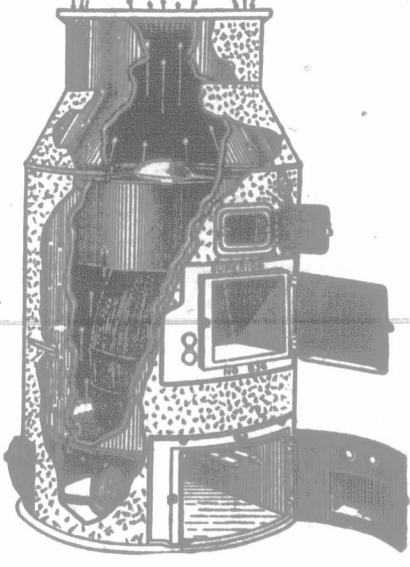
If you prefer the slopping method, make a thick slop of SCHUMACHER and give to your hogs regularly from weaning time to market time. Either plan will prove exceedingly profitable and prove to your satisfaction that there is big profit in raising hogs today with the aid of SCHUMACHER FEED.

Ask your dealer for SCHUMACHER — if he can't supply you, write us.

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## The Pilot Superior Pipeless Furnace Does not Overheat the Cellar



Fruits, Vegetable and other perishable products can be stored close to the Pilot Superior Furnace without danger of spoilage. This is a big advantage appreciated by every homeowner who must keep food-stuffs in the basement.

The Pilot Superior insulating air chamber and the straight, flush-front prevents the radiation of heat to the outside casing. The return air space which encircles the entire furnace, keeps this outside casing cool at all times. The only heat that is radiated into the cellar comes from the smoke pipe and this is sufficient to keep the temperature of the basement above freezing. A Pilot Superior Pipeless Furnace can be installed in six hours.

Manufactured by  
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With their extraordinary vision, deep sense of responsibility resting upon them as trustees and in the careful attention they devoted to the affairs of the Company, they laid the foundation upon which the Mutual rests today with its assets of over \$38,000,000, all belonging to the policy holders of the Company.

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**FOR SALE GROCERY BUSINESS GUELPH.**  
Property can be bought or rented. For particulars apply: **JOHNSTON & CO.,** 26 Gordon Street, Guelph, Ont.

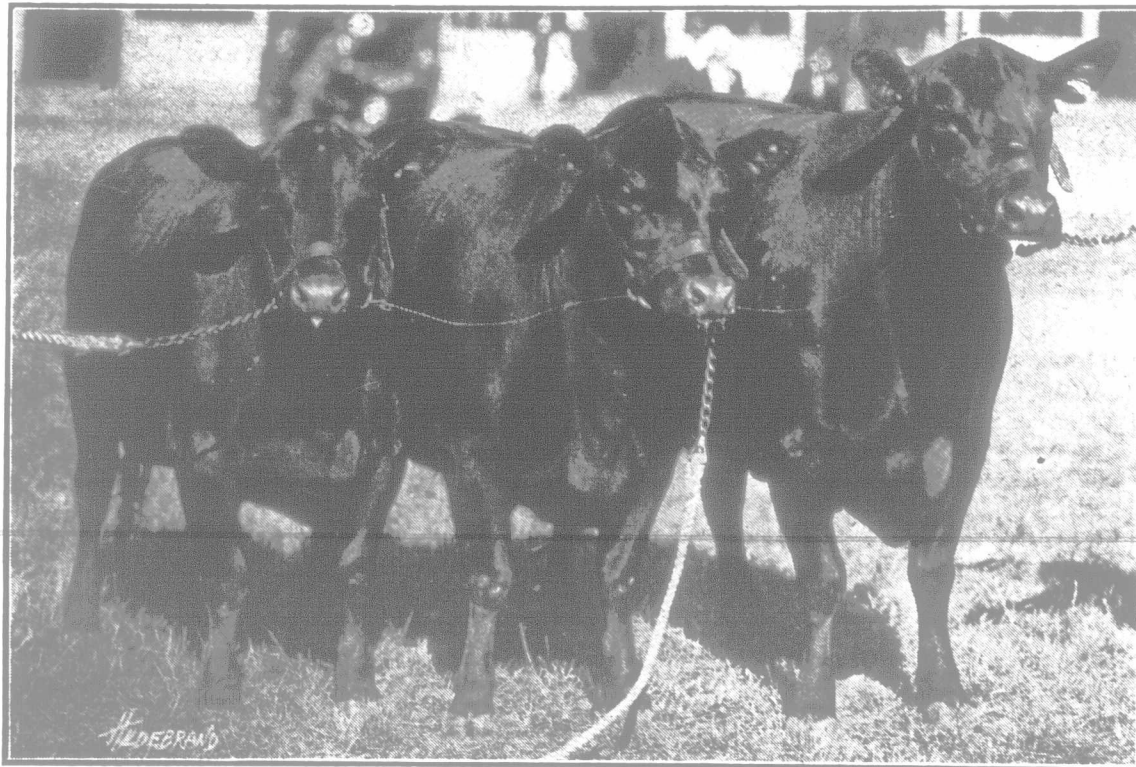


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**Pure-bred and Registered**  
**Aberdeen - Angus Cattle**

AT TORONTO EXHIBITION GROUNDS

**Wednesday, June 2nd, 1920**

These cattle come from the best herds in Ontario  
**PRIDES, TORJAN, ERICAS, WITCH OF ENDORS, ROSE OF ADVIES, KYMAS**  
**50 Head - Forty-Five Females - 5 Bulls**



J. D. Larkin's 3 head get of Elm Park Beauty's Prince, 1st Prize winners, Toronto, 1919

Included in the offering are a number of choice cows with calves at foot and rebred. Just what the new breeder needs to start his herd. There are also a number of choice females bred to such outstanding sires as Idolmere 5th, full brother to Idolmere, G. C. Chicago, 1919; Espoir Marshall, G. C. Toronto, 1919 and J. C. Chicago; Benedictine Monk Imp. and Young Leroy, G. C. at four large fairs East and West and winner of 81 1st prizes.

Come to the sale and bring your friends. It does not matter whether you intend to buy or not, if you are an Angus breeder you should be there to help the sale with your own support, if you are not an Angus breeder you should be there to get some of these cattle and get started in the breed that leads them all.

**REMEMBER THE DATE---WEDNESDAY, JUNE 2nd**

WRITE FOR CATALOGUE

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JAMES BOWMAN, Secretary :: GUELPH, ONTARIO

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Angus, Southdowns, Collies  
 Choice bred heifers. Bulls 8 to 15 months.  
 Southdown ewes in lamb.

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**Aberdeen - Angus**

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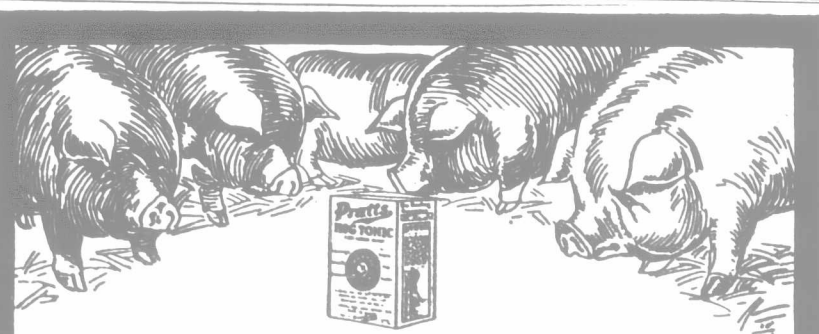
**The Glengore Herd of Aberdeen - Angus**

Have a few choice Angus Bulls for quick sale that would make most desirable herd headers. Write for particulars.

GEO. DAVIS & SONS  
 Erin, Ont. R. R. No. 1

**SUNNY SIDE HEREFORDS**  
 12 bulls, serviceable ages; 5 by breeding size and individual merit are good enough to head any pure-bred herd. Females of different ages. Disposition invited. They are priced to sell.  
 ARTHUR F. O'NEIL & SONS, Denfield, Ont., R. No. 2  
 Phone 27 12 O'neil

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Write to The Farmer's Advocate and Home Magazine for particulars on how to save money by securing NEW SUBSCRIPTIONS.

**Questions and Answers.**  
 Miscellaneous.

**Wills.**

1. Is a will usually left with the lawyer who draws it up?
2. Is it lawful to give an executor a bequest or not?

Ontario. J. E.  
 Ans.—1. Yes.  
 2. Yes.

**Killing Groundhogs.**

What will smother groundhogs? A. W.  
 Ans.—Carbon bisulphide is commonly used. A rag is moistened with this material and placed in the burrow. The gas from it, being heavier than air, descends and destroys all life it comes in contact with. Do not handle this material around the buildings or near a lighted lamp.

**A Pig With a Cough.**

I have a pig about ten weeks old which is doing all right, but has a cough. It is fed on scalded rolled oats, milk, water, and a little flaxseed meal. What treatment do you advise?  
 L. S.

Ans.—A cough usually accompanies tuberculosis, but with this trouble the pig is usually unthrifty, although it will have a capricious appetite. Coughing is also a symptom of bronchitis, but with this there is a loss of appetite and general weakness. This trouble usually proves fatal with young pigs. As the pig is hearty and thrifty, we would be inclined to think that there is a slight irritation of the throat, caused possibly by the oat hulls. Rolled oats are not considered particularly good for pigs. We would prefer having them finely ground.

**Troublesome Poultry.**

A and B are two farmers living side by side on fifty-acre farms. A has half of line fence and B the other half. A plants a field of corn on the end where B's fence is. B has a lot of hens, and will not build a fence to keep his hens out of A's field, and B's hens are continually destroying A's crop. It is impossible to take a flock of hens to pound. Has A the right to shoot B's hens when on his premises if he leaves them lying where he shoots them, or what must he do to avoid this trouble as it is the same every year no matter what crop is in the fields?  
 J. S.

Ans.—A cannot legally shoot the hens. If B refuses or neglects to prevent the hens from trespassing on your premises after a notice in writing has been served upon him of their trespass, he incurs a penalty not exceeding \$10. Recoverable under the Ontario Summary Conditions Act, and one-half of which would be payable to you if you laid the information.

**Paint.**

I have a brick house which has become discolored with age. How would the skim-milk paint do, mixed with Venetian red? What other mixture could you recommend?  
 A. R. H.

Ans.—The skim-milk paint is made by mixing 3 lbs. of cement in one gallon of new milk and adding coloring to please the taste. This should be kept stirred and may be applied with a brush. It will set in about six hours. If it is not kept stirred the cement settles to the bottom. Another mixture which may be sprayed on or applied with a brush is to take a half bushel of unslaked lime, slake with warm water and cover it to keep in the steam. Strain the liquid through a fine sieve or strainer, add a peck of salt, previously dissolved in warm water; 3 lbs. of ground rice boiled to a thin paste and stirred in boiling hot; then add one-half pound of Spanish whiting and one pound of glue. Add 5 gallons of hot water to the mixture and allow to stand for a few days before using. Some coloring material may be added.

A sale of Guernsey cattle was recently held near Chicago when sixty head made an average of \$2,000 each. The highest price was \$17,700 for a mature cow. Among the lot was a two-and-a-half year-old-daughter of one of the foundation cows at Martindale Farms, St. Catharines. This heifer was giving at the time of the sale around 52 pounds of 5 per cent. milk per day, and brought the splendid figure of \$3,700.





Wellington Street, Stratford, Ontario, "Tarvia-X" pavement constructed in 1913. Surface treated with "Tarvia-B" 1917.

### One-third of Stratford is Tarviated—

STRATFORD has about twelve miles of hard pavements and four miles of them are now Tarvia-macadam. Several miles are maintained with "Tarvia-B." Tarvia was used because the Tarvia way is the most economical way of maintaining roads. The 1917 costs, including labor, sand, crushed stone, and "Tarvia-B," were only a few cents per square yard. For this small sum all the streets present a smooth, handsome, dustless surface.

Tarvia is a dense, tough, water-proof tar preparation especially refined and graded for the various conditions of practical road work. Tarvia was the first material of the kind on the market and has remained the standard with which all other materials are compared.

Numerous towns have adopted the rule of tarviating all their roads for economy's sake. Many others like Stratford are reaching that point by the force of logic and the low costs.

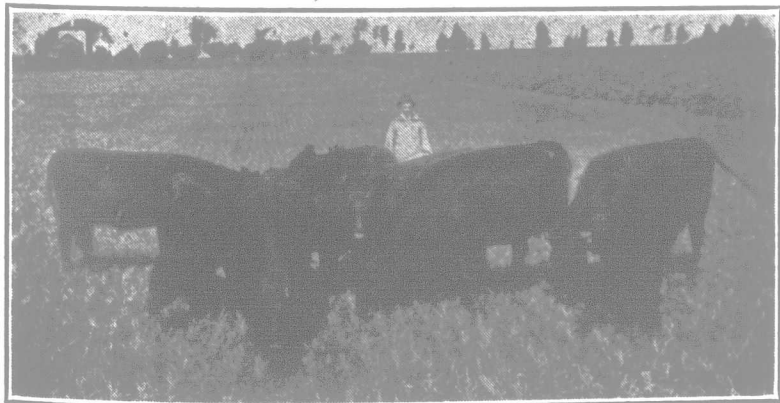
The City Engineer's annual report states: "The use of 'Tarvia-B' as a seal-coat and as a preventive to raveling or disintegration has proved satisfactory."

Illustrated booklets will be sent upon request to any person interested. Address our nearest office.

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Preserves Roads—Prevents Dust

The **Bunt** Company Limited Montreal Toronto St. John, N. B. Halifax, N. S. Sydney, N. S. Winnipeg Vancouver



## ABERDEEN-ANGUS

---The Beef-Breed Supreme---

See the SUNNY ACRES Consignment at Toronto, June 2nd

A car load of rich-looking beefy Doddies that have good breeding combined with good individuality. Good typey animals, every one.

Just one bull in the lot, but he is of the real herd-header sort. One of the breeds' best. The greatest young bull ever offered from Sunny Acres.

The female offering includes some show material, choice young breeding cows, and cows that have produced winners. The females of breeding age are in calf to the present stock bulls. IDOLMERE 5th—18145—276339, and ROSEBUD'S LEROY—17043—a pair of great bulls, each of which carry a wonderful combination of good breeding and good individuality, both prize winners at Toronto. IDOLMERE 5th is full brother to the historic IDOLMERE 199904, Grand Champion Aberdeen-Angus Bull at the 1919 Chicago International.

G. C. Channon, SUNNY ACRES FARM, Oakwood, Ontario

**Now is the time to plan for an IDEAL GREEN FEED SILO**

Begin now to plan for a silo before the spring rush is on. It will enable your cows to give 25% more milk on a cheaper ration.

The Ideal Green Feed Silo has been the choice of thousands of Canadian farmers because it is the best silo available. Sound lumber best suited for the purpose is used throughout. The staves are carefully made and finished. They are held together with extra heavy steel hoops. The doors and staves are treated with a specially prepared preservative.

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Buy the cattle that make their owners money.

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UNION STOCK YARDS  
Toronto, Wednesday, June 2nd

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F. W. CRAWFORD, Secretary :: Brandon, Manitoba

## LARKIN FARMS, QUEENSTON, ONT.

ABERDEEN-ANGUS CATTLE, SHROPSHIRE and SOUTHDOWN SHEEP

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Young stuff for sale at all times. Visitors always welcome and met any time.

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**Overalls & Shirts**

**Bob Long Says:—**

"My overalls and shirts are roomy and comfortable, and made especially for farmers. I designed them with the idea that you might want to stretch your arms and legs occasionally."

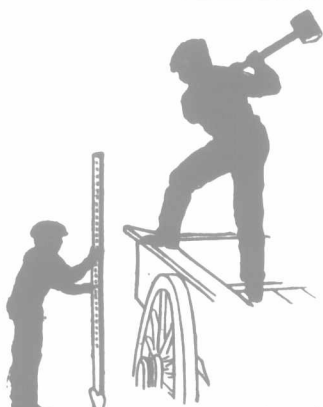
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**Easy to Drive. Holds Firmly in Place.**

If you've been accustomed to the back-breaking job of digging post-holes, handling heavy wood posts, filling in and tamping, you'll be delighted with the ease, speed and economy with which

**PRESTON STEEL POSTS**

are erected. The sharp bevelled point goes in with a few hammer-blows, and the anchor-plate binds the post so firmly that no replacements are required. Haul enough at one load to fence a 40 acre field—drive them in a day—have a good-looking, permanent fence. Write for Folder.

METAL SHINGLE & SIDING COMPANY, LIMITED  
PRESTON, ONTARIO

**English Dual Purpose Shorthorns**

Begin the pasture season by the purchase of a sire which will add value to your calves—For milk and beef—from imported stock of choice breeding. We have a fine choice of bull calves and bulls.

Also English Large Black Pigs—A thrifty breed—Write or call.

LYNNORE STOCK FARM  
F. W. Cockshutt, - Brantford, Ont.

**Mardella Dual-Purpose Shorthorns**

8 choice young bulls; 30 females, cows and heifers. All of good size, type and breeding. Herd headed by The Duke; dam gave 13,599 lbs. milk, 474 lbs. butter-fat. He is one of the greatest living combinations of beef, milk and Shorthorn character. All priced to sell. Write, call or 'phone.  
THOMAS GRAHAM, Port Perry, R.R.3, Ont.

**Questions and Answers.**  
Miscellaneous.

**Sick Gobbler.**

I have a gobbler that mopes around, has been for a week or little more. He has a yellow diarrhoea and doesn't eat scarcely anything and his head looks yellow. The grain I have been feeding is wheat and oats mixed. What would be the cause and treatment. L. E. N.

Ans.—From the description given, it is rather difficult to state definitely what is the matter with your gobbler. It is possible that he is affected with blackhead, for which very little can be done. Until he shows symptoms of improving, isolate him from the main flock. Wheat and oats should be all right for feeding. Putting one teaspoonful of muriatic acid in a pint of drinking water is recommended. For blackhead you might try giving a mixture of 5 grains sulphur, 1 grain of sulphate of iron and 3 grains sulphate of quinine, giving a little night and morning.

**Municipal Drainage.**

A owns a farm which has been in his and his father's possession upwards of thirty-five years. In that time he has constructed and maintained a system of open drains, and at the present time has a main drain full length of his farm running north and emptying into lake. Parties owning land to the south of A's farm and who have always drained to said lake through two municipal drains—the one about one-quarter mile west of A's farm and the other three-eighths of a mile east of A's property—have applied to municipal council to construct a municipal drain through A's property, making use of A's main drain, which would cost at the present time to construct not less than \$1,200.00.

1. Would A be justified in insisting upon a fair recompense for said ditch for value of land taken for the ditch, also the value for labor for excavation already performed?

2. If so, would court sustain him? If not, why not?

3. A also has three bridges over said drain which are necessary and have been in their respective locations for years. Can A compel council to replace bridges when drain is made or pay an allowance for bridges?

4. Who sets the award? I. X. Z.

Ans.—1, 2 and 3. We think so.  
4. The civil engineer employed by the council.

**A Wages Claim.**

I hired a married man for a year and was to have given him five hundred dollars with free house, garden, a quart of milk and summer wood, etc. He started work on the twenty-ninth of August 1919, and stopped on the twenty-seventh of April at noon, 1920. He did not tell me he was quitting until the next morning. When asked what was the trouble, he did not give any reason but blamed it all on his wife. He has been getting his money on the twentieth of each month, and when he stopped there were thirty-one dollars coming to him. I told him I would have to hire another man in his place to put in the rest of this year and if there was anything left after paying the other man I would give it to him as I told him the next four months were worth as much as the last six. He said it was all right and moved out at once. He has written since telling me to send the money at once and save further trouble.

1. Can he make me pay it before the end of year?

2. Can I hire a man in his place and if I have to pay this man more should I take it off what is coming to him?

3. Can he collect for the last month there being another day and a half of that month to put in when stopped.

4. In February he complained of not getting enough wages and I promised him a raise of ten dollars a month for the remaining months if he finished out his year.

Should I give him that ten extra now since he did not finish his year. Ontario. H. B.

Ans.—1. No.

2. Yes.

3. He can only collect what if anything, the court might consider reasonable having regard to all the circumstances.

4. No.

**The Macartney Machine Milker Is Fool Proof**

There is no complicated machinery to the Macartney Machine Milker, in fact it is a *marvel of simplicity*. It only needs ordinary care and it will not get out of order.



*The Cow's Adopted Child*

Besides being so simple, the Macartney Milker is perfectly natural in operation, there is nothing about it to irritate the cow, in fact its use is greatly preferable to the old method. Hand milking at best is only poor imitation of the calf's way of taking the milk. The Macartney Machine milks exactly as the calf sucks—that's why it is called "The Cow's adopted child."

**Increase Your Milk Production**

More milk per cow is invariably the result where the Macartney Milker is installed. It is not a matter of great expense and the Macartney soon pays for itself for it does the work in half the time and effects a great saving in Labor cost.

Fill in the attached coupon and let us send you full particulars. Get this information anyway for future use and don't buy a milker without investigating the exclusive features of the Macartney.

**The Macartney Milking Machine Co. Limited**  
316 Catherine St., Ottawa

**The Macartney Milking Machine Co. Limited**  
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Gentlemen—  
Please send me full particulars about the Macartney Milker.

Name \_\_\_\_\_  
Address \_\_\_\_\_

Dept. B I have \_\_\_\_\_ Cows \_\_\_\_\_

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Eighty-three years without change, we have been breeding Scotch Shorthorns. The foundations of many of the best herds in America were laid from our farms.

I am in a position to furnish you with the best in either sex that can be found. High-class young bulls for the breeder and the farmer. Cows and heifers of the finest breeding to start you right, and you cannot afford to start wrong. Every animal that I have sold in two years has been satisfactory, the most of them sold by letter. I can satisfy you with the best in what you want at a price that will give you a chance, and I will pay the freight or express to your station. Augusta Sultan = 93092 = one of the greatest living sires at the head of my herd. Write and if possible come and see, it is worth while. Post Office, Telegraph, Telephone and Station is Stouffville, Ont. 30 miles from Toronto.

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**No More Blackleg**

Calves once vaccinated with Continental Germ Free Blackleg Filtrate are safe from Blackleg for life.

Write for Booklet, which contains valuable information on Animal Diseases, Breeding Tables, Horn, Training, Branding and Marking Appliances, and other stock subjects. It is free.

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**A NEW IMPORTATION OF 40 SCOTCH SHORTHORNS**

arrived home Dec. 17th. From our herd of 125 head we can offer a large selection in choicely-bred bulls and females. Anyone in need of foundation stock may find it to their advantage to look over our offering before making any purchases.

**J. A. & H. M. PETTIT :: FREEMAN, ONTARIO**  
Burlington Jct., G.T.R., only half mile from farm.

**Reyburn Milking Shorthorns**

ANNUAL INTERNATIONAL SALE  
JUNE 9th, 1920, AT EUCLID, MINNESOTA, U.S.A.

Sixty head of choice milking Shorthorn cows and heifers, and five outstanding bulls

Address all correspondence to **Palmer Farm, Euclid, Minn.**

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**MILKING SHORTHORNS** Young stock from R.O.P. cows by imported sires.  
**BERKSHIRE PIGS** Choicely bred sows and boars, all ages. Can supply pairs not akin.  
**J. B. PEARSON, Manager - Credit Grange Farm - Meadowvale, Ont.**

**DUAL-PURPOSE SHORTHORNS**

Herd headed by Dominator 106224, whose two nearest dams average 12,112 pounds of milk in a year. Bulls from 1 to 6 months old for sale, also a cow or two. Inspection of herd solicited.  
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Meadowvale, Ont.

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ounds of milk in a year.  
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BRANCHES IN THE LEADING CITIES

**Roan Bull—Calved April 23rd, 1919**  
Sire, Chief Orator =122385 = (Imp.). Dam, Spring Beauty =138815 = (Imp.). Good enough in  
dividually and in breeding to head a good herd. Could spare a few females.  
J. T. GIBSON, Denfield, Ont.

**SPRUCE GLEN SHORTHORNS**  
We have a few choice, well bred, thick, deep level, mellow young bulls of breeding age for sale; also  
heifers in calf to a right good sire. Write for particulars.  
Dundalk, Ontario  
JAMES McPHERSON & SONS

**Imported Scotch Shorthorns** For Sale—Three imported bulls, one yearling,  
one two-year-old and our three-year-old herd  
sire; also a choice two-year-old Orange Blossom of our own breeding, and three well-bred bull calves  
about a year old. Would consider exchanging an imported bull for Scotch females.  
R. M. MITCHELL, R.R. No. 1, Freeman, Ont.

**20 Bulls—SPRUCE LAWN—100 Females**—Clydesdales, Shorthorns, Yorkshires. Herd  
headed by Imported Golden Challenger 122384,  
a Rubyhill, bred by Earl of Northbrook, by Ascott Challenger, bred by L. De Rothchild. Special  
bargains in farmer's bulls. Cows and heifers in calf, yearling and heifer calves. Yorkshires either sex.  
J. L. and T. W. McCAMUS, Cavan, C.P.R.; Millbrook, G.T.R. and P.O., Ont.

**Cedar Dale Farm**—The Home of Lakeview Johanna Lestrangle, the \$15,000 sire—He is the  
son of the 33,06-lb. cow, Lakeview Lestrangle, and is our chief sire in service.  
We are offering a few females bred to him, and also have a few bull calves sired by him at right prices.  
Other older bulls, sired by our former herd sire, Prince Segis Walker, son of King Segis Walker.  
A. J. TAMBLYN, Cedar Dale Holsteins, (C.N.R. station one mile), Orono, Ont.

**Shorthorn Herd** Sires Selling Quick—I have several young bulls left that must go out  
quick. All are of serviceable age—three are by Gainford King, a  
grandson of Gainford Marquis (imp.), and two others are Nonpareils. One of these is got by the  
same sire that sired the \$3,100 junior champion heifer, sold in the Dryden-Miller sale. Write quick  
if you want them.  
GEO. E. MORDEN, Oakville, Ontario

**Newcastle Herd of Shorthorns and Tamworths for Sale**  
3 nice bulls, 11 to 13 months old, and several yearling heifers and cows with calves at foot, both  
sexes, all splendid milking strain. Several Tamworth sows due to farrow in May, June, July.  
Young stock, both sexes, at weaning up to six months old. All from prize-winning stock.  
A. A. COLWILL, (Long-Distance Phone) R. R. No. 2, Newcastle

**PUSLINCH PLAINS SHORTHORNS**  
Five bulls for sale by Burnbrae Sultan -80325-.  
A. G. AULD, R. R. 2, GUELPH, ONT.

**Spring Valley Shorthorns**—Herd headed by Sea Gem's Pride 96365. We  
have a number of good bulls for sale, including  
the Champion Ivanhoe 122760, and his full  
brother also, an extra well bred Rosewood, and others. Write for particulars.  
Telephone and telegraph by Ayr.  
KYLE BROS., Drumbo, Ont.

**BLAIRGOWRIE SHORTHORNS**  
3 Imported bulls. 10 Imported females in calf or calf by side. 2 Scotch bred bulls.  
5 Scotch bred cows with calves by side.  
JNO. MILLER (Myrtle C.P.R. and G.T.R.) ASHBURN, ONT.

**3 Good Shorthorn Bulls for Sale** 2 whose Dam and Sire's Dam  
average over 500 lbs. butter in  
a year, and 1 whose 7 nearest  
Dams average over 10,000 lbs. milk in R.O.P.  
JOHN WALKER, Nanticoke P. O. Jarvis or Hagersville Station  
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**Pear Lawn Shorthorns, Hackneys and Yorkshires**—One imported in dam Miss Ramsden  
bull, 14 months; one Secret bull, 12 months, imp. sire and dam;  
one Golden Rose bull, 6 months, imp. sire and dam; one bull, a Flattery, 12 months, imp. sire. A  
few young cows with calves at foot. One imported Hackney stallion, A 1; two Hackney stallions  
rising one year; one registered Clyde mare; also Yorkshires at weaning time. HERBERT J.  
MILLER, Keene P.O., Ont. Stations—Keene G.T.R., Indian River C.P.R. Peterborough County.

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**AND HOW TO CURE**  
—A Standard treatment with  
years of success back of it to  
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**Fleming's Tonic  
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Use it on any case—No matter  
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three boxes fail to relieve, we  
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Write us for a Free Copy  
BEST EVER USED  
Dear Sirs—Enclosed find \$1.00 for 1 package  
of Tonic Heave Remedy. I used a package  
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of some 3 years' standing.  
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SHORTHORNS**  
A dozen young bulls  
imported and my own  
breeding at moderate  
prices.  
W. A. DRYDEN  
Brooklin - - Ontario

**SCOTCH-TOPPET  
SHORTHORNS**  
Three young bulls (red), for sale; thick, sappy  
fellows; also 6 thick heifers, 2 years old, bred to  
a Scotch Clementina bull. These will be priced  
right. Come and see, or address:  
HENRY FISCHER,  
Bell 'Phone 47 R. No. 2, Mitchell, Ont.

**SHORTHORNS**  
Present offering: Six young bulls, Reds and  
Roans, also a number of females. They have  
size, quality and breeding from good milking  
dams. Prices moderate. Satisfaction guaranteed.  
CHAS. GRAHAM - Port Perry, Ontario

**Shorthorn Bulls**  
One straight-bred Claret, 2 yrs. old (red),  
also three roans, 13 months old, all  
in good condition, guaranteed  
breeders' and priced to sell.  
D. D. GRAY  
Summerhill Farm - Rockwood, Ont.

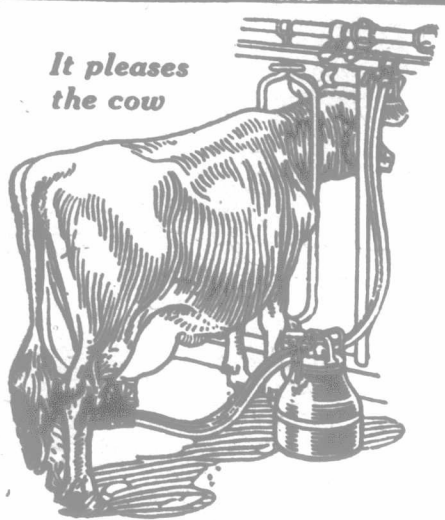
**Scotch Shorthorns**—Herd headed by Master  
Marquis =123326 =, by  
Gainford Marquis. Stock of either sex for sale.  
Also Oxford Down ewes.  
GEO. D. FLETCHER, Erin, R.R. 1, Ont.

**SPRUCE LODGE STOCK FARM**  
Shorthorns and Leicesters For Sale  
Two choice young bulls, 6 and 11 months old, also  
one and two-year-old heifers, all got by Roan  
Chief Imp. =60865 =. W. A. DOUGLAS,  
Caledonia, Ontario

I have a pair of  
**THREE-YEAR-OLD COWS**  
with heifer calves by their side.  
VALMER BARTLETT, CANFIELD, ONT.



It pleases  
the cow



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Over Forty  
Years Ago—

the De Laval Cream Separator came to the aid of the dairy farmer.

The De Laval Milker is also an important invention and comes to the dairyman's aid to do away with the drudgery of hand milking. It has been thoroughly tested and has proved satisfactory, in operation, on cows of every breed for over three years.

The De Laval Milker is a distinctly different type of machine, both as to design and operation, positive and uniform in action from day to day; and faster, more economical and more reliable than any other method of milking. The sanitary features are of special importance and will be much appreciated by dairymen.

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Write to nearest De Laval office for Milker  
Catalog, stating number of cows milked

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MONTREAL PETERBORO WINNIPEG EDMONTON VANCOUVER

10—SOLD—10

### SPECIAL OFFERING

Holstein bull born January 1919. We have sold 10 bulls; have 1 yet. Write us about him. The price, breeding and individuality will please the most critical. His 6 nearest dams are each tested for a year. He is a choice bull and priced low for quick sale. Also Yorkshire boars and sows fit to wean. Write us **R. HONEY & SONS, DARTFORD, ONTARIO.**

**Willowbanks Holsteins** Owing to being very short of help, I am offering a few young cows, good type and breeding, fresh and due soon; also a choice 7 months' bull, sired by my young imported sire King Veeman Lyons (38074). His dam is a good record daughter of King Walker Pride (17362). Write for extended pedigrees. Bell Phone, Fenwick Station **C. V. ROBBINS, WELLANDPORT P.O., ONTARIO**

### WALNUT GROVE HOLSTEINS

I am offering a choice lot of bull calves sired by May Echo Champion, who is a full brother of world's champion, May Echo Sylvia; also a few cows just fresh. (Take Radial Car from Toronto to Thornhill). **C. R. JAMES, Richmond Hill, R.R. No. 1, Ont.**

### HOLSTEIN BULLS FROM 30-lb. DAMS.

If you want 30-lb. bulls—good individuals—and priced right—you should see my present offering. I also have lower priced bulls and am offering females bred to Ormsby Jane Burke. Correspondence solicited. **R. M. HOLTBY, Manchester G.T.R.; Myrtle C.P.R.; PORT PERRY, ONT.**

**Cedar Brook Farm Holsteins** (Farm one-half mile from Inglewood Station, C.P.R., G.T.R.)—We are offering two young sons of Highland Pontiac Sylvia (his two nearest dams average 30.51 lbs. of butter, 786.4 lbs. of milk), a son of Avondale Pontiac Echo—the \$50,000 son of May Echo Sylvia. We guarantee these calves, and we are going to sell them quick. Write, or call and see them—don't delay. **CEDAR BROOK FARM (B. Misener, Manager) INGLEWOOD, ONT.**

### Questions and Answers. Miscellaneous.

#### Right to Land.

A buys a farm. B's lot is off of it. A's deed allows B a 4-acre lot, but B's deed only calls for 2 acres. Can A claim the other 2 acres, the fence having enclosed 4 acres for some time?

Ans.—No.

#### Assessment Appeal.

1. If a taxpayer in a township appeals to the council against his assessment and is not satisfied with their decision at the Court of Revision, what proceeding is it necessary for him to take so that his appeal will come before the judge?

2. Would the person who appealed have any costs to pay if the judge decided against him?

Ontario.

P. H. E.

Ans. 1. He must serve upon the Clerk of the Municipality, within five

days of the closing of the Court of Revision, a written notice of his intention to appeal to the county judge.

2. He might. It is in the judge's discretion.

#### Taking Up Land.

I have saved a few hundred dollars and would like to have your opinion as regards homesteading in the West, or taking up land in Ontario. Would a few hundred dollars be sufficient to start? A. B.

Ans.—With the sum of money which you have saved you would scarcely have enough to make a start on a homestead in the West. By the time you had paid your way out and then purchased a team of horses and a few implements, you would be considerably in debt. We understand that there are some very good localities in Alberta and Saskatchewan for homesteading. You might have to go from forty to fifty miles from a railroad to start, but in most of these districts the railroads soon follow the settlers. The Peace River District is favorably

spoken of and we believe they secure some excellent crops, although the seasons are short and the winters exceedingly cold. Owing to the expense of starting on even a homestead at the present time, our advice would be to work out with some good farmer for another year at least. This would give you a little more money with which to purchase the stock and implements, and it is possible that conditions will be more settled in a year's time. You might be able to get work with a farmer who has an extra house and wishes to secure a married man. Very good wages are paid, especially when one considers that as a rule the man secures milk and a garden patch. If a person has the determination to succeed, he will usually get along at whatever occupation he goes into. There is usually less risk in farming in Ontario and, while it may take a little more capital to start with, a person has home comforts which he cannot secure by homesteading in a new country. A good many have succeeded by renting a lot and raising a herd of

cattle and hogs. If a person has a few good foundation females, it is surprising how quickly a good-sized herd can be developed.

#### Infected Skin.

I have a driving mare that is covered with small lumps. They are rather hard at first and change to open-like pimples, and come off leaving a bare spot. A. R.

Ans.—It is rather difficult to say definitely what is affecting the mare. It may be a form of eczema. Give her a thorough scrubbing with warm soap-suds; rub dry after washing, and then dress two or three times daily with one part carbolic acid to thirty-five parts sweet oil. Sometimes horses are affected with mange. This is rather a stubborn disease to remedy. A sulphur ointment consisting of one part sulphur to three parts lard sometimes proves effective. One part creosote, twenty parts linseed oil, and thirty parts soap solution is another remedy which is recommended.

## ORMSTOWN Live Stock Show

OPEN TO ALL CANADA

Ormstown, Que., June 15-16-17-18

\$17,000 offered in prizes

All judging done inside large covered steel stadium. The Live Stock Dept., Ottawa, are offering large prizes for finished Beef, Sheep and Swine at this Show for the first time. Show opens Tuesday evening June 15th with judging of driving horses. Cattle men do not need to be ready to exhibit until Wednesday.

Neil Sangster, President W. G. McGerrigle, Sec. Treas.

### Hamilton House Holstein Herd Sires

Our highest record bull for sale at present is a 4 months' calf from Lulu Darkness, 30.33 lbs., and sired by a son of Lulu Keyes, 36.56 lbs. His two nearest dams, therefore, average 33.44 lbs., and both have over 100 lbs. of milk per day. We have several older bulls by the same sire, and from two and three-year-old heifers with records up to 27.24 lbs. All are priced to sell.

D. B. TRACY, Hamilton P. Schour, Ontario

### Hospital for the Insane, Hamilton, Ont.

HOLSTEIN BULLS, FOR SALE

Senior sire is from one of the best sons of King Segis Alcartra Spofford. Junior is grandson of the noted May Echo Sylvia, by Champion Echo Sylvia Pontiac.

Write to the Superintendent for prices, etc.

### Raymondale Holstein-Friesians

A herd sire of our breeding will improve your herd. We have sons of our present sire, Pontiac Korndyke of Het Loo (sire of \$12,750 Het Loo Pieterje), and also sons of our former sire, Avondale Pontiac Echo. Several of these are of serviceable age, and all are from good record dams. Quality considered, our prices are lower than anywhere else on the continent. Their youngsters should not remain long. Write to-day.

RAYMONDALE FARM, Vaudreuil, Que. D. RAYMOND, Owner, Queen's Hotel, Montreal

**Cloverlea Dairy Farms** Herd headed by King Pontiac Rauwerd who combines the blood of Canada's greatest sires and dams. His offspring are a choice lot. We have stock for sale, both male and female, 75 head to choose from. Consult us before buying elsewhere. Could book a few more cows for service to "King." **GRIESBACH BROS., L.-D. 'phone Collingwood, Ont.**

**Summer Hill Holsteins**—We have the best bunch of Holstein bulls ever offered at our farm. Their dams have records up to over 34 lbs. of butter in 7 days. All are sired by a bull with 34-lb. dam. One is a full brother to the Grand Champion bull at Toronto this year. Prices reasonable. **D. C. FLATT & SON, R.R. No. 2, Hamilton, Ont.**

**"Premier" Holstein Bulls Ready for Service**—I have several young bulls from dams with 110 lbs. of milk in one day—over 7-day records up to 32.66 lbs. of butter, 755.9 lbs. of milk, with 10 lbs. of butter in 30 days. All are sired by present herd sire, which is a brother to May Echo Sylvia. Step lively if you want these calves. **H. H. BAILEY, Oak Park Farm, Paris, Ont.**

### ELDESLIE HOLSTEIN-FRIESIANS

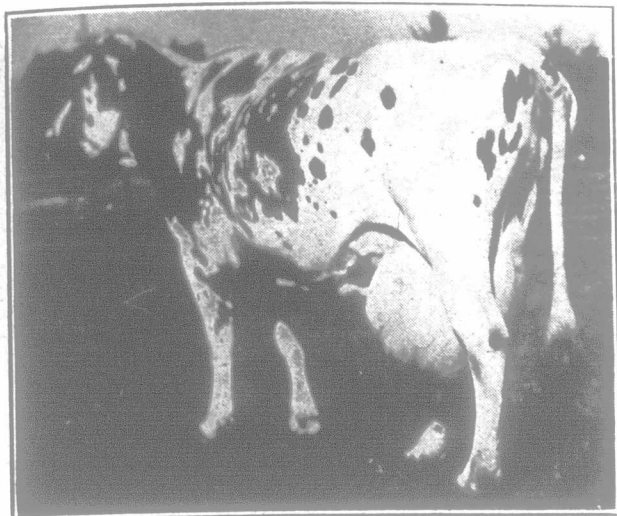
Am all sold out of heifers, just have three bull calves left, from four to six months old. They are sired by Judge Hengerveld De Kol 8th, a 32.92-lb. bull. The dam of one is a 20.225-lb. cow. Write for prices and come and see them.

**ARCHIE MUIR, Elderslie Farm, SCARBORO' P.O., ONT.**

**Sylvius Walker Raymondale** is the sire of the majority of our young bulls now listed. If you see these calves you will appreciate them. Their dams are mostly daughters of King Segis Pontiac Duplicate. Don't delay if you want a good bull at a right price. We are also offering females. **R. W. WALKER & SONS, Port Perry, Ont.**

**9 HOLSTEIN BULLS 9**—Every one a show calf. Any age up to 14 mos. Dams untested, or with records up to 24-lb. 4-year-old, 22-lb. Jr. 3-year-old. All sired by Gipsy Pontiac Cornucopia, that perfect 30-lb. sire, who is a grandson of May Echo Sylvia. Priced for quick sale. **JOSEPH PEEL, Port Perry, Ont.**





**INKA SYLVIA MAIDA.** (To be sold)  
Sister to the World's Greatest Cow

# The Sunnybrook Farms' Quality Herd

BREEDING=MERIT=PRODUCTION=CONSTITUTION

## Sixty Head of Canada's Best

Containing more 20 to 29-lb. three and four-year-olds than any other one herd in the Dominion. Selling without reserve at Sunnybrook Farms

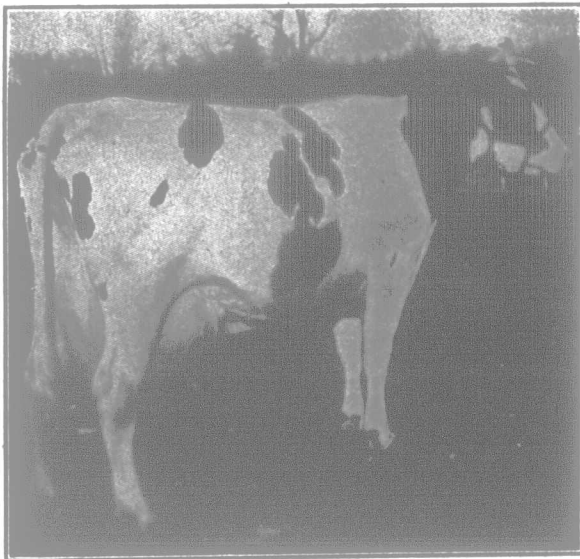
**North Toronto, Ontario, Wednesday, June 9th, 1920**

(One and one-half miles east of Eglinton Ave. and Yonge St. Sale at 10.30 a.m. sharp.)

**40 Fresh Cows    15 Choice Heifers    10 Young Bulls—65 Head.    Fully Guaranteed**

A positive sale of positive merit. Only five in the offering are up to six years of age—their lives of record-making and production are still before them, and nowhere has the quality and standard of individual merit been excelled. Combined with this, their breeding also illustrates their possibilities as an offering of 30-lb. material. Just here we would like to point out that of 65 selections catalogued only five are above five years of age, and we believe among them is a larger number of two, three and four-year-old heifers with records from 20 to 29 lbs. than can be found in any other one herd in the Dominion. Many of these heifers are sired by one or the other of two noted sires, Sir Lyons Hengerveld Segis or Sir Natoye Oakland. The former, it will be remembered, was a 33.31-lb. son of the great King Segis, while the latter was a brother on the sire's side to Retta De Kol Madi, 31.43 lbs., and from Natoye De Kol 4th, 31.13 lbs. of butter, 704 lbs. of milk in 7 days, at 10 years of age. Count Faforit Segis, another sire used in the herd in the past, also has a dozen daughters listed. This bull was one of the

strongest breeding sires ever used at Sunnybrook, and his sire was by a brother to Segis Fayne Johanna, the world's first 50-lb. cow. Among the more mature cows selling will be found such individuals as Inka Sylvia Maida, the 102-lb. per day cow (shown above), and sister to the sire of the great May Echo Sylvia; Victoria Posch De Kol, 28.10 lbs. of butter, 599.20 lbs. of milk in 7 days; Sunnybrook Inka Mercedes, at present on test, with 27 lbs. completed and still gaining, and others, making in all forty young cows near fresh or in full flow of milk at sale time, among which are 14 two and three-year-old heifers with records from 17 to 21 lbs. The whole making an offering that for exceptional individual excellence and official world's record backing has as yet never been approached in any Canadian Holstein sale ring. Added to this the calves they will be carrying (or have by their side) will all be sons or daughters of our great, young 32-lb. sire, Highland Pontiac Sylvia, grandson of the world's greatest cow, May Echo Sylvia. If this breeding appeals to you, you should be present.



The World's Greatest Cow—MAY ECHO SYLVIA

NOTE:—Sunnybrook Farms is one of Ontario's best-equipped farming establishments. The stables are modern, the fields are well tilled, and even though you're not a Holstein breeder, you will enjoy a day spent here. Come on June 9th—we will make you welcome.

For Catalogues apply to

**JOSEPH KILGOUR**

Sunnybrook Farms

North Toronto, Ont.

Auctioneers: KELLY and HAEGER.

In the Box: S. T. WOOD

Motor transport from end of Yonge Street City Car Line



**HIGHLAND PONTIAC SYLVIA**  
The 32-lb. grandson of May Echo Sylvia—Our present herd sire



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More Milk and Better Milk

CAN BE FED WITH PERFECT SAFETY TO ALL LIVE STOCK

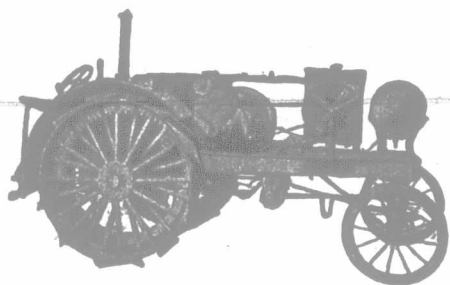
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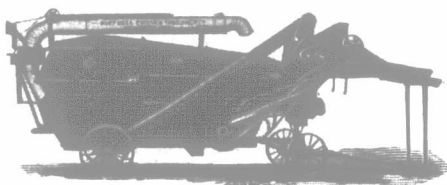
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Individual Farmers' Threshers, suitable size to be driven by small Tractors and Gasoline Engines. Do your own Threshing. Keep your farm clean and save expense. Write for free catalogue, prices and any information wanted.

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America's Pioneer Dog Remedies

### BOOK ON DOG DISEASES, And How to Feed

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or stuttering overcome positively. Our natural methods permanently restore natural speech. Graduate pupils everywhere. Free advice and literature. THE ARNOTT INSTITUTE KITCHENER, CANADA

Glencairn Ayrshires—Herd established 40 years. Producing ability from 1000 to 11,022 lbs. Each cow's stock of produce comparable to you, we have heifers all ages and young bulls for sale. Thos. J. McCormick, Rockton, Ont. Copetown Station, G.T.R.

Please mention Advocate.

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Shinn-Flat throws a safety belt around every building on which it has been installed. With thousands of buildings throughout Canada and the United States protected for years, it is a fact that no building has ever been damaged by lightning that was properly rodded with

### Shinn-Flat

#### Lightning Rods

Make yourself, your family, your cattle, your crops, and your buildings safe against lightning, by having them protected by Shinn-Flat Lightning Rods.

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Write for full information and a copy of Prof. Day's interesting book on "Lightning, its Cause and Control." It is free.

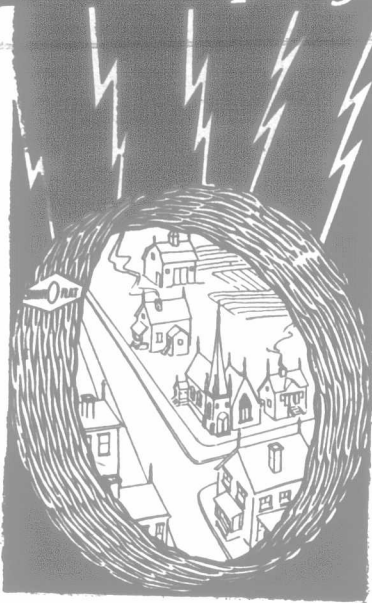
SHINN MFG. CO. OF CANADA, LIMITED

Prof. W. H. DAY, Secretary and General Manager.

Manufacturers of Shinn-Flat Lightning Rods

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## BRAMPTON JERSEYS

THE LARGEST JERSEY HERD IN THE BRITISH EMPIRE

At Toronto Exhibition, 1919, we won twenty-five of twenty-seven first prizes. We now have for sale first-prize young bulls from R. O. P. dams, as well as females of all ages.

B. H. BULL & SONS :: Brampton, Ontario

**Laurentian Producing Jerseys**—The oldest bull we have at present is a year old youngster, sired by our herd sire, Broadview Bright Villa, No. 5630, and from Brampton Astoria, one of the best imported cows in the herd. We also have others younger of similar breeding, as well as a few bred heifers for sale. FREDERICK G. TODD, Owner, 801 New Birks Bldg., Montreal, P.Q. Farm at Morin Heights - F. J. WATSON, Manager

**Canada's Most Beautiful Jersey Herd**  
The Woodview Farm JERSEYS Herd headed by Imported Champion Rowser, winner of first prize with five of his daughters on the Island of Jersey, 1914, second in 1916, and again first in 1917. We are now offering for sale some very choice young calves, ready for service, sired by imported bulls and from Record of Performance imported prize-winning cows. Also some cows and heifers. Prices right. We work our show cows and show our work cows.

**ALL BULLS OF SERVICEABLE AGE SOLD**  
A few young bulls sired by Financial Nabigh King, one of the \$6,000.00 Financial Beauty King, for sale from R.O.P. dams. AS. BAGG AND SONS, Woodbridge, C.P.R., Concord, G.T.R., EDGEL EY, ONT.

**DON HERD OF PRODUCING JERSEYS**  
We have three young bulls of serviceable age—good individuals in 1st prize right. Could also spare a few choice bred heifers. A. S. BAGG AND SONS, WOODBRIDGE, ONT.

**Stockwood Imported and Canadian-bred Ayrshires**—Write us for your copy of our circular. I have at present 1000 lbs. of milk per cow per day. Also giving a few young cows and heifers. D. M. WATSON, St. Lawrence, G.T.R., P.O.

## Questions and Answers. Veterinary.

### Slaughtered Heifer.

Pregnant heifer became dull, eyes ran water and she had difficulty in breathing. She produced a dead calf. Her breathing continued labored and continued to get worse. I killed her on the third day. Would prompt treatment have saved her, and what should it have been?

C. R. P.

Ans.—The symptoms indicate an acute attack of double pneumonia, for which no treatment would have been effective. V.

### Punctured Wound.

Horse ran a sliver into his front leg last spring. He was stiff and swollen for a few days and then the wound healed, but it broke out again and has been running matter for some time.

H. C.

Ans.—There is some foreign matter in the tissues, either a part of the sliver or some object that was forced in by the sliver. The wound must be enlarged, the foreign matter located and removed, and the cavity then flushed out 3 times daily until healed, with a 5-per-cent. solution of carbolic acid. The wound will not heal permanently so long as any foreign matter remains in the tissues. V.

### Scratches.

Clydesdale horse has something resembling scratches on his front legs. He used to get his foot over his tie rope. It looks as if there is proud flesh with a hard, dry scab on top. It is all under the fetlock.

Sub.

Ans.—This is practically scratches, caused by rope burn. Keep a poultice of warm linseed meal to the part until the scab softens. Then remove scab, and if proud flesh is present, apply a little butter of antimony with a feather once daily until it disappears. Then keep in a dry place and dress 3 times daily with a lotion made of 1 oz. each of acetate of lead and sulphate of zinc to a pint of water. V.

### Unthrifty Bull.

Bull has been sick since September. I think the trouble is with his teeth. He eats very little, but chews his cud all right. My veterinarian examined his mouth and cut off a couple of long teeth. He also tested him for tuberculosis and he did not react. He has had a cough since he was a year old. He is very thin. He gets very little exercise. He is 3 years old.

W. J. J.

Ans.—As your veterinarian examined and dressed his teeth, it is very probable your diagnosis is at fault. The cough indicates tuberculosis. In some advanced and diffused cases of this disease the animal will not react. Then again the tuberculin used may not have been of good quality. It would be well to have him tested again. All that you can do is to give tonics and regular exercise. Mix equal parts of powdered sulphate of iron, gentian, ginger and nux vomica and give him a tablespoonful 3 times daily, and see that he gets daily exercise. V.

### Miscellaneous.

#### Fencing.

What is the law with regards to fencing church and school property? Does it have to be fenced, and by whom?

R. B. P.

Ans.—Any wall or fence deemed necessary by the school board or required by the regulations for the enclosure of the school premises must be erected and maintained by the board; otherwise we would say that church and school trustees are in practically the same position as individuals as regards fencing.

#### A Boy's Wages.

1. Can my father collect my wages if I go working? He has told me many a time to go an look out for myself. You can't satisfy him.

2. Can I demand my master to pay me or am I to work for nothing? I am only 14 years of age. I have already worked and collected my own wages.

Ontario. F. W. R.

Ans.—1. Legally, yes.  
2. As against your father you cannot insist upon payment otherwise than to him until you are over 16 years of age, and then only if you are not residing with him.

Oxford Rams, also 10 Lambs.

Shropshire ewe lambs Two Clydes W. H. When wr



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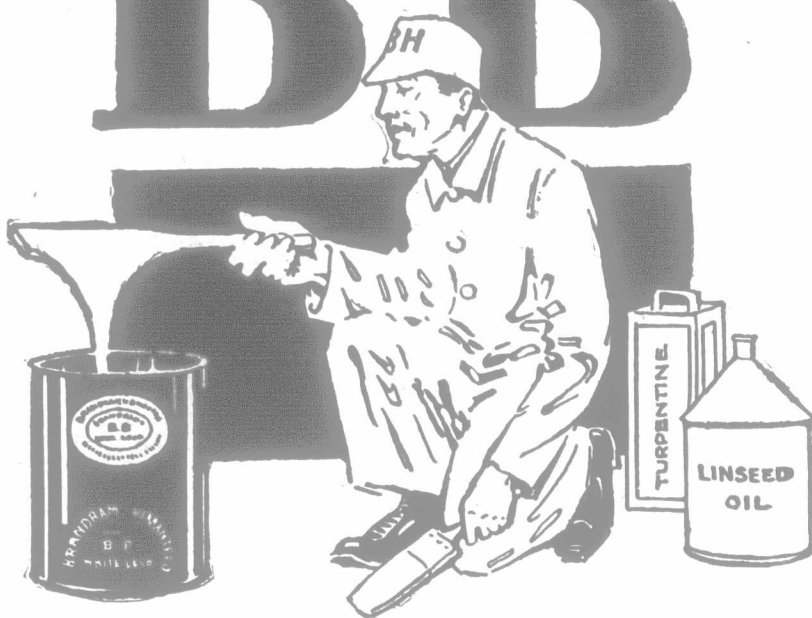
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# BRANDRAM'S GENUINE

# B.B.



# WHITE LEAD

THIS painter knows by the "feel" that it is not an ordinary white lead he is mixing.

When he added linseed oil and turpentine, he found that the white lead "broke up" with scarcely an effort. It became a smooth, velvety liquid, and now he is admiring not only its smoothness as it falls from his paddle, but also its glossy whiteness.

He knows now that he was wrong when he used to say that all Government Standard Pure White Leads were alike. He has already felt the difference with his paint paddle. But, when he actually brushes out this paint on the surface to be protected, he will see for himself that it covers more surface and covers it with a smoother, more opaque film than any other white lead he has ever used. He will understand why BRANDRAM'S GENUINE B.B. WHITE LEAD has been the world's standard for 200 years, and why it commands a higher price than any other white lead on the Canadian market.

If you have not yet become acquainted with BRANDRAM'S GENUINE B.B. WHITE LEAD, try it on your very next painting job. You will always use it, if you once give it a trial.

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**Oxford Down Sheep, Pioneer Flock**—We are offering this season a up-to-date lot of yearling and two-shear Rams, also imported two-shear Ram and a number of Yearling and two-shear Ewes, also Ram and Ewe Lambs. HENRY ARKELL, Office and Telegraph, 267 Sherman Ave. South, Hamilton, Ont. Shipping Station, Guelph and Corwin

**Shropshire Yearling Ewes** bred to Bibby's '84 (imp.) ram and ewe lambs sired by him. Two Shorthorn bulls. Two Clydesdale stallions. W. H. PUGH, Myrtle Station, Ont.

When writing please mention Advocate

### Lakeview Yorkshires

If you want brood sows of any age, stock boars of any age, or young pigs, write me. All bred from prize-winners for generations back.

JOHN DUCK, Port Credit, Ont

### ELMHURST LARGE ENGLISH BERKSHIRES

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



### BERKSHIRES

—My Berkshires for many years have won the leading prize at Toronto, London and Guelph. Highciders and Sallys the best strain of the breed, both sexes, any age. ADAM THOMPSON, R. R. No. 1, Stratford, Ont. Shakespeare Station, G.T.R.



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AT LOW

Factory prices—shipped promptly—freshly made from our factory direct to you. You will lose money and miss a profit saved if you buy fencing—either woven wire, barb wire, galva or other materials for fence building, if you do not first get our illustrated and honestly descriptive literature, price list and order blank on

## SARNIA

Fencing. Ours is a money saving proposition for farmers. Sarnia Fence and Sarnia plan of direct selling and prompt shipping has earned the name and the fame of being the "best in Canada." Lowest in price. No profits but yours and ours. None but best materials used in manufacture. Skilled workmen employed. Business methods and honest dealing used with farmers. Satisfied customers and bank references to prove quality and our reliability. The money we save speaks loudest for that phase of the square deal. Write about your fence plans. Let us tell you exact cost to your station. Let us help you work out your fence problems.

The Sarnia Fence Co., Ltd. Winnipeg, Manitoba. Sarnia, Ontario

**Berkshires**—Boars ready for service and boar pigs, rich in the blood of Lord Premier's Successor 1615000, Grand Champion, 1914, Champion Sire of 1915, 1916, 1917. His descendants have won Grand Champion honors at the largest and strongest shows of 1919. The Champion Berkshire barrows of 1918 International were double grandsons of Lord Premier's Successor. We have shipped many Berkshires to Canada with satisfaction to customers. Prices on request. HOOD FARM, INC., Lowell, Mass.

### Chester Whites

Our sixth importation has just arrived. One litter farrowed in quarantine—sired by Champion boar Ohio State Fair—and a sow in pig to "Volunteer," Champion of Nebraska. Also ten litters sired by 1st and 2nd prize aged and champion boars at C. N. E. Unrelated pairs as a baby herd. Illustrated catalogue. JOHN G. ANNESSER, Tilbury, Ont.

## YORKSHIRES

Pigs of different ages, both sexes, from large litters.

### WELDWOOD FARM

Farmer's Advocate, London, Ontario

## YORKSHIRES

At Westside Farm Small pigs of "Weldwood" breed ready to ship; write at once. David A. Ashworth - Denfield, Ont.

**Meadow Brook Registered Yorkshires**—Ten choice young boars fit for service, from prizewinning stock. Prices reasonable for quick sale. G. W. MINERS, R.R. No. 3, Exeter, Ontario

### Inverugie Tamworths

A choice lot of gilts bred for June and July farrow, Young boars from 50 pounds up. Leslie Hadden, Box 264, Sunderland, Ont.

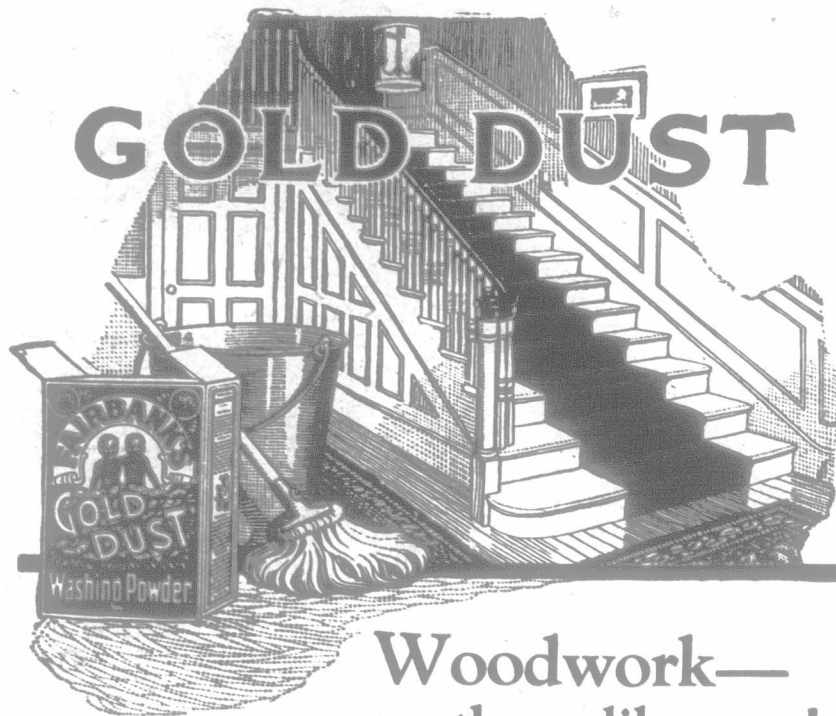
### TAMWORTHs

Young sows, bred for June and July farrow, and boars for sale. Write or phone. JOHN W. TODD - Corinth, Ontario

### English Large Black Pigs

I have an exceptionally fine litter of this great breed of pigs for sale. Very hardy, thrifty and easy feeders. Order early. G. A. LOCKE, Strathroy, Ontario





**YOU'LL** find that Gold Dust—soapy and cleansing—takes wonderful care of woodwork—a tablespoonful only to half a pail of warm water. See how quickly and thoroughly Gold Dust removes the oily deposit and dirt—almost *without* rubbing. Woodwork cleaned with “soap rubbed on a cloth” is apt to be smirched. But cleaned with Gold Dust—how new, how fresh, how spotless it looks!

When you see the words Gold Dust on the package you know it really is Gold Dust. Without the real Gold Dust you can't get Gold Dust results.

THE FAIRBANK COMPANY  
LIMITED, MONTREAL

MADE IN  
CANADA



## Take Your Time, Don't Hurry!

There is no need for so much rushing on baking days, hurrying to get your cakes in the oven—such exhausting exertion adds baking to the list of household drudgeries.

You can take your time yet do more with

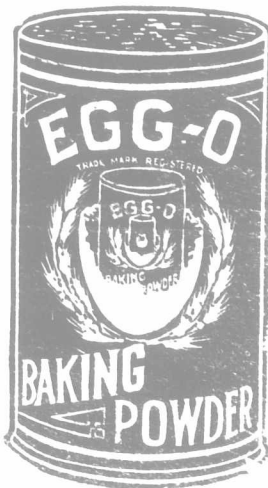
# EGG-O Baking Powder

than with other brands because the leavening action of Egg-O only ceases when your cakes are properly baked—No matter if you do have to wait several hours for your oven.

And don't worry if your oven does cool off. Egg-O will leaven your baking with less heat than most other brands.

And above all, don't worry about fallen cakes, follow the directions on the label. You will use less Baking Powder, and have better baking.

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



## Our School Department.

### The Improvement Club.

The following suggestions for a school improvement club are presented by Prof. S. B. McCready in his book entitled, “Rural Science Readers:”

#### BY-LAWS

1. The officers shall be elected at the beginning of each half-year.
2. The membership fee shall be five cents, payable half-yearly.
3. Meetings shall be held on Friday afternoons or at other suitable times as arranged by the Executive Committee.
4. Every member shall join some part of the work undertaken by the Club. Younger pupils in the school will be encouraged to take part in the meetings.

#### ORDER OF BUSINESS.

1. Reading of minutes.
2. Communications, letters from other schools, etc.
3. Reports of Committees and New Business.
4. Program—Addresses, papers, reports on home projects, or debate.

#### SUGGESTIONS

1. Can your school be improved in any particular by all working together? If there is room for improvement, organize an Improvement Club.
2. Learn to address an audience in a clear, out-spoken manner. Also learn how to conduct public meetings. Knowledge of these two things will be very useful in after life.
3. Donate the Minute Book of your Club, when it is filled, to the School Library. It will be interesting to future classes.
4. Invite your friends to an occasional meeting of your Club. Appoint a critic from among the visitors to point out how improvements can be made.
5. Have a contest in composing a school yell and a school motto.
6. Conduct the election of officers for your School Club in the proper manner. Have nominations and vote by ballot. Learn the procedure, followed in the election of your school board, your municipal council, and your church officials.
7. If the opportunity offers, attend a meeting of some organization to learn how public business is conducted. The older boys might attend some of the meetings of the local Farmer's Club and the girls those of the Women's Institute, in preparation for the time when they will take the places of men and women.

### More and Better Teachers.

BY J. G. SMITH, EEL COUNTY, ONT.

The leaders of education in the Province of Ontario, both in the Legislature and out of it, are studying ways and means of improving the public school. Among the various suggestions four stand out prominently, namely, more extensive training for teachers, consolidated schools, township or county boards, and higher salaries.

The first calls for little discussion, but the consolidated school and the township board have had their share of criticism in the public press. Evidently neither is very popular in rural districts.

As to teachers' salaries, a vexed question for years, at the present meagre remuneration nothing short of conscription will supply recruits in sufficient numbers to fill up the ranks of the profession. Realizing this, the Central Committee no longer leave the salary question to the individual teacher, but send out the following “marching orders,” as the 1920 scale:

Rural school teachers and assistants in urban schools first year, at least \$800; second, \$900; third, \$1,000; fourth, \$1,100; fifth, \$1,200. Principals in schools of from two to four rooms should receive, first year, at least \$1,200; second, \$1,300; third, \$1,400; fourth, \$1,500. In schools of more than four rooms the scale should be, first year, at least \$1,600; second, \$1,700; third, \$1,800; fourth, \$1,900; fifth, \$2,000. These are minimum figures, counties being permitted to adopt a higher scale if they so desire.

Teachers and parents go back to your school, and if you find it dead and uninteresting, organize a consolidated

form five or six miles away? If your one-roomed school is going to live, get interested in it.

### Young Animals.

#### A Lesson for the School.

**Aim.**—To interest the pupils in the habits and food of colts, lambs, calves and chickens, so that they may love and appreciate them more.

**Materials.**—Pictures of colts, lambs, calves and chickens. Observations of the pupils.

**Method.**—1. Have you seen any young animals at play; for example, colts, lambs, calves, and chickens. Tell me what you have seen them do? What do they eat? Let us become acquainted with young animals.

2. Look at the picture of a colt. Describe its appearance. When young how are colts fed? What do they eat when they grow older? How do they act? What fun do they have? What will they do if they like you? What happens to the hair when a year old? How does the mother call her colt? How does she protect it? How does she show that she loves it? Similarly, discuss the appearance, habits, food, and care of calves and lambs. Look at a picture of chickens. How do we get chickens? What is the appearance of a chick when it comes out of the shell? Has it any feathers? How are chickens fed? How often should they be fed when young? Who teaches them to eat and look for food? Whom do the chicks follow around? What happens when they are alarmed at anything?

3. Compare colts, lambs, and calves as to appearance, food, and habits. Which do you like best? Which seems happiest?

4. Why do you like young animals? How can you tell them apart? What do they eat and how do they act? What fun has each? Why should we be kind to and protect young animals?

5. Look carefully at colts, lambs, calves, and chickens the next opportunity you get. Watch their habits. Notice what they eat and how they play.

6. Read poems and tell stories about young animals. Try to draw pictures of calves, lambs, chickens, and colts.

The above lesson plan is from Nature Study Lessons by Dr. D. W. Hamilton.

### Arithmetical Problems.

ON WAGON WHEELS, BY ARTHUR SMITH.

The front wheels on our wagon are 4 feet in diameter and the hind wheels 5 feet.

How often does each wheel turn in going the  $2\frac{1}{2}$  miles from our place to Stanley's Mill?

ON CHEESE FACTORY RETURNS, BY STELLA BLAKER.

We are sending all the milk from six of our cows to the factory. The weights for last week were: Monday, 475 pounds; Tuesday, 224 pounds; Wednesday, 240 pounds; Thursday, 242 pounds; Friday, 237 pounds; Saturday, 240 pounds.

What is the daily average yield from each cow?

What will be the returns for the week at \$2.25 a cwt?

Allowing  $10\frac{1}{2}$  pounds of milk for a pound of cheese, what weight of cheese would be made from the milk?

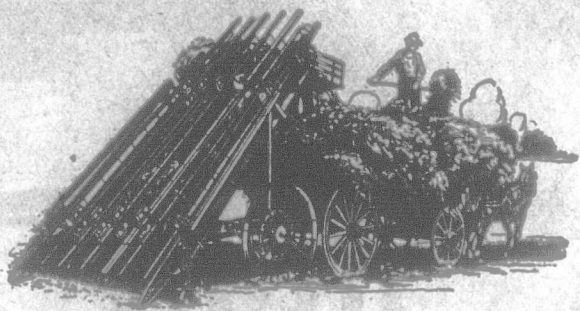
### Federation of Teachers.

Peel teachers met in the Court House, Brampton, May 8, for the purpose of organizing the Peel Branch of the Teacher's Federation. The meeting was addressed by Secretary Fraser of Toronto, Mr. Nelson of Wellington and others. While the Federation have at heart all matters pertaining to the welfare of the teaching profession, the main feature at present is the salary campaign, the schedule adopted being that recommended by the Central Committee of the Province which makes the minimum salary \$1,000 for a teacher with a permanent certificate. Teachers receive their permanent certificate at the end of two years' teaching.

J. G. S.



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