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Census and Statistics  
Dept. of Agriculture  
dec 31, 09

# THE FARMER'S ADVOCATE

AND HOME MAGAZINE

PERSEVERE  
SUCCEED

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

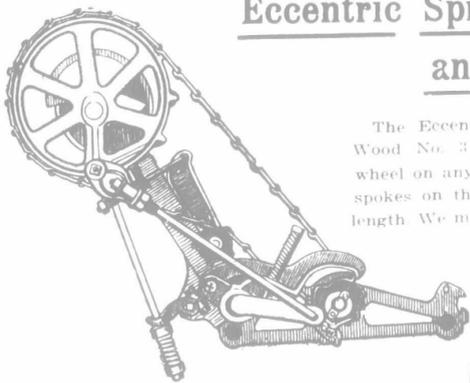
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Vol. XLV.

LONDON, ONTARIO, MARCH 3, 1910.

No. 910

## Eccentric Sprocket Wheel Makes More Compact Bundles and Discharges Them Much Faster



The Eccentric Sprocket Wheel on the Frost & Wood No. 3 Binder is totally unlike the sprocket wheel on any other Binder. You will notice that the spokes on the Eccentric Wheel are not all the same length. We make the wheel this way for two reasons:

First, because the long spokes increase the leverage power fully 16 2-3 per cent. over any other wheel. When the bundle is about

to be tied, the chain is pulled over the long spokes, and with the extra leverage power exerted, the grain is compressed more tightly. Less twine is needed to tie it. The bundle is neater, more compact. Easier to carry. Easier to shock.

Second, because short spokes discharge the bundle faster. After the bundle is tied by the Knotter the chain is pulled over the short spokes, which, of course, greatly increase the speed of the chain.

Unlike ordinary Binders, there is no "jar" or "jerk" when the bundle is being tied and discharged on the No. 3. The Eccentric Sprocket Wheel eliminates that "destructive" drawback of ordinary makes of binders.

### The No. 3 Knotter Ties Every Sheaf

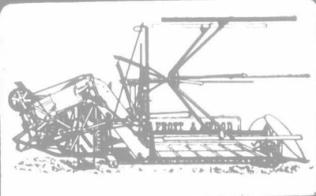
The Knotter on the No. 3 Binder has earned a great name for itself, because of the general satisfaction it has given. No matter how hard and fast you ask this knotter to work it never hesitates an instant. It is always on the job. Always sure and positive. You can rely upon



it implicitly to tie every sheaf.

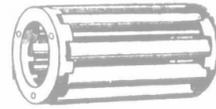
You can regulate the binding attachment to tie any size bundle you desire. And the binder is guaranteed for one year against defective construction and workmanship. That shows our confidence in Frost & Wood Quality.

# Frost & Wood



## no. 3 Binder

### Roller Bearings Make it Run Easier



At all points where there is a possibility of friction occurring we provide Large Roller Bearings. That is one reason why the Frost & Wood is so much lighter draft than other binders—so much easier on the horses. It's one reason why the No. 3 Binder works so smoothly—the pride of the owner—and why it will give so many more years of service, too.

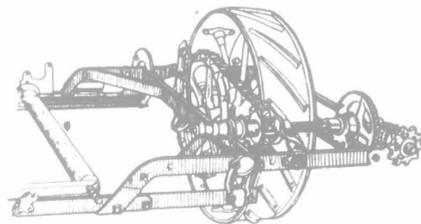
Over seventy years' experience in building farm machinery for every section of the Dominion has enabled us to produce a binder that will triumphantly withstand the extra heavy work and unusually rough usage that go hand in hand with Canadian farming.

### No. 3 Has a Strong "Back Bone"

There is no possibility of the No. 3 breaking down from accidentally striking a boulder or turning a post a furrow. It is built too wisely to be so strongly to let anything like that happen. The "back bone" of this binder, the Main Frame, consists of heavy pieces of steel riveted together. A Heavy Double Flange Iron illustration connects the Main Frame to the Platform. Heavy work is done on the ground, do not cause a tremor to this binder, and it will never sagging. It's this

Frost & Wood quality of material and workmanship that we put throughout the No. 3 Binder that enables it to last two to five times as long as other binders. We've the names of owners of Frost & Wood binders who have run their machines from 10 to 15 years, with practically no expense, except on sections.

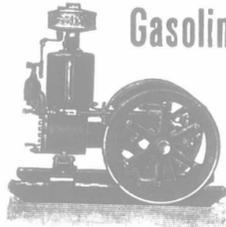
If you are interested, ask us to send you a catalog, showing how this machine is constructed, and telling what it has done for



FROST & WOOD COMPANY, LIMITED, SMITH'S FALLS, CANADA.

44

# STICKNEY Gasoline Engine



Just suits the **CANADIAN FARMER.**

It is simple in design.

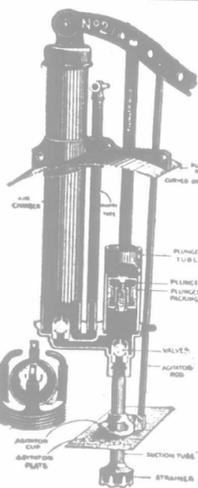
Does not easily get out of "kilter." Your boy can start it.

## LOOK HOW COMPACT.

No conglomeration of tank and pipes always in the way.

Booklet No. 57 will post you on the principles of Gasoline Engines.

**Ontario Wind Engine & Pump Co. (LIMITED), TORONTO, CANADA.**



Mr. Leigh, Supt., put on the N. Y. C. Stock Yards, Buffalo, N. Y., 40 tons (80,000 lbs.) of Cold Water Paint with these wonderful Hand Machines. In this event the

## Spramotor

has proven its value. A demonstration like this is more convincing than a heapful of arguments. The Spramotor is guaranteed for a year. In all sizes for Orchard, Potatoes, Painting, White-washing, Vineyard and Weed destruction. Say what you want it for. This ad. will not appear in this paper again. If interested, write now.

**SPRAMOTOR, LTD., 1358 King St., London, Ont.**



### Synopsis of Canadian North-west Land Regulations.

ANY person who is the sole head of a family, or any male over 18 years old, may homestead a quarter-section of available Dominion land in Manitoba, Saskatchewan, or Alberta. The applicant must appear in person at the Dominion Lands Agency or Sub-Agency for the district. Entry by proxy may be made at any agency, on certain conditions, by father, mother, son, daughter, brother or sister of intending homesteader.

Duties—Six months' residence upon and cultivation of the land in each of three years. A homesteader may live within nine miles of his homestead on a farm of at least 80 acres, safely owned and occupied by him, or by his father, mother, son, daughter, brother or sister.

In certain districts a homesteader in good standing, may pre-empt a quarter-section along side his homestead. Price, \$300 per acre. Duties—Must reside six months in each of six years from date of homestead entry (including the time required to earn homestead patent) and cultivate fifty acres extra.

A homesteader who has exhausted his homestead right, and cannot obtain a pre-emption, may take a purchased homestead in certain districts. Price, \$300 per acre. Duties—Must reside six months in each of three years, cultivate fifty acres, and erect a house worth \$300.

W. W. CORY, Deputy of the Minister of the Interior. N.B.—Unauthorized publication of this advertisement will not be penalized.



**GILSON MFG. CO., 150 York St., Guelph, Ont.**

**INVENTIONS** Thoroughly protected in all countries. EGERTON R. CASE, Registered U. S. Patent Attorney, TEMPLE BUILDING, TORONTO. Booklet on Patents and Drawing Sheet on request.

## Here Are the Two Strongest Fence Locks Ever Made

The Frost Woven Fence Lock is the strongest and most secure Lock known. It will not work loose or slip. One reason is because it possesses more inches and weight of Wire than any other



Lock. But the principal reason is because the Frost method is the most practical. Note the peculiar, powerful-looking "Knot." Then see the wonderful triple "Wrap," with its ends cut close. (These closely-cut ends prevent springing.) This triple "Wrap" makes the Frost Lock doubly secure.

The picture, alone, of the Frost Lock should prove that no other Lock on earth is so secure.

### Lateral Not Kinked

The Frost Lateral is not kinked. The Lateral in nearly every other Fence is kinked. This weakens it. And when subjected to great strain: snap! she goes. Because all contraction-strain falls on the Lateral.

No other Fence Maker can make this Lock. We own the patent. And we build our Machines in our own Machine Shops.

So, you see, this wonderful Frost Lock cannot be duplicated—nor even imitated.

### Frost Metal Lock

The Frost Field-Erected Fence Lock permits the use of No. 7 Hard Steel Stays (a size larger and heavier than the Uprights used in Woven Fences). These are immovably bound to uninked coiled Laterals.

The Lock on the best other Fence made is about 60 per cent. weaker than the Wire.

But the Frost Lock is the strongest part of the Frost Field-Built Fence. Fallen trees, and other unusual tests, which have smashed other Fences to smithereens, have left the Frost unharmed.

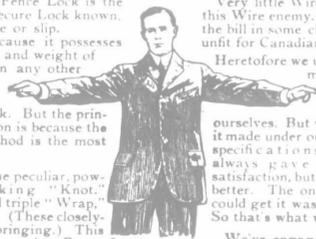
This Frost Lock is the safest Field-Built Fence Lock ever made. It is the only secure Lock which will not injure the Wire in a Field Erected Fence.

### Make Our Own Wire

There are extreme weather changes in certain sections of Canada which mean a mighty short life to most Wire Fences.

Very little Wire is made to fight off this Wire enemy. Such Wire might fill the bill in some climates, but it's simply unfit for Canadian conditions.

Heretofore we used ready-made Wire



ourselves. But we had it made under our own specifications. It always gave good satisfaction, but we wanted better. The only way we could get it was to make it ourselves. So that's what we're now doing.

We've engaged a Wire Expert with 25 years' experience behind him. And we've built special Wire-Making and Galvanizing Mills, and installed the most modern machinery made.

Through scientific Annealing, all Frost Wire is even in temper. It will stand against Canadian weather, no matter how severe.

### Two-Thirds of Its Life

Two-thirds of the life of a Wire Fence depends upon its Galvanizing. When this two-thirds is killed—eaten away by rust—the other third is as good as dead.

Yet nearly all Wire is Galvanized too thinly. And, besides, it's merely "coated." That's because Zinc costs four times more than the Wire itself.

(We pay the highest price for Zinc, and get the best.)

But Frost Wire is Galvanized doubly thick. And it is not merely "coated," either. The Zinc goes down into the Wire, making the Galvanizing a part of the Wire itself. This prevents Frost Wire from scaling.

This is possible only by the Frost "Pickling" and "Cleansing" process. It simply scours Frost Wire of every particle of grease and scale, leaving it as clean as a pin.

Frost Galvanizing will now stick to the Wire through thick and thin. No Galvanizing enemy can rust it. That's why the Frost Fence will last 12 to 15 years longer than most others.

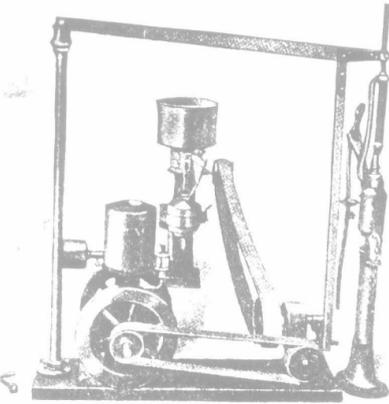
Send for free Booklet and Samples.

**The Frost Wire Fence Co., Limited**  
Hamilton, Ontario  
Agents Wanted in Open Districts

# Frost Fence

## IDEAL GASOLINE ENGINES

1 1/2 TO 40 HORSE-POWER.



Windmills, Grain Grinders, Pumps, Tanks, Water Boxes, Concrete Mixers, Etc., Etc.

Send for catalogue.

**GOULD, SHAPLEY & MUIR CO., LIMITED,**  
Brantford, Canada.

### Anything from a Berry Plant to a Shade Tree is Waiting Your Order.

No better stock of value offered than at the old reliable CENTRAL NURSERY. We ship direct to you with satisfaction. See our Frost Catalogue before placing your orders. If you have not had good results from others TRY OURS 30TH YEAR.



Apple, Pear, Plum, Cherry, Peach and Ornamental Trees  
Roses, Shrubs, Seed Potatoes, etc.

**G. HULL & SONS,**  
100 GERRARD ST. E., TORONTO, CANADA.



## FARMERS, FRUIT, AND VEGETABLE GROWERS



WHY ARE YOU IMPORTING PHOSPHATE AND AMMONIA WHICH IS A BY-PRODUCT OF YOUR FARMS OF WHICH YOU ARE EXPORTING MANY THOUSAND TONS ANNUALLY BONES AND WHICH CONTAIN LARGE QUANTITIES OF PHOSPHORIC ACID AND AMMONIA

KINDLY ANSWER THE ABOVE

PURE BONE MEAL IS THE CHEAPEST FERTILIZER. THIS PLANT FOOD IS ALL FROM OUR CANADIAN SOILS AND SHOULD ALL GO BACK SEND FOR PRICES, ETC.

**THE W.A. FREEMAN CO. LIMITED**  
HAMILTON, CANADA

### Why Not Put "BT" Stanchions In Your Stable?

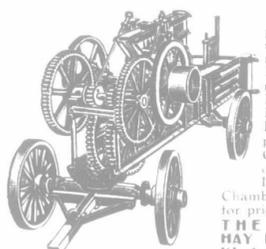


They will make it brighter and neater, are stronger, more durable, and cost less than any other tie when all is considered. Your cows will be kept clean and comfortable. Ask us how to lay out your stable, and why it pays to use "BT" Stanchions

**BEATTY BROS., FERGUSON, ONT.**  
HAY CARRIERS, LITTER CARRIERS, ETC.

### The Columbia Hay Press

BAILED 68 TONS IN 10 HOURS.



It has the points that sell: Automatic Self Feeder, Automatic Safety Fly Wheel, Handiest Block-dropper, Double Gear throughout, Extra Long Tying Chamber, etc. Write for prices. **THE COLUMBIA HAY PRESS CO., KINGSTON, ONT.**

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To grow the finest flowers and most luscious vegetables, plant the best seeds. Ferry's Seeds are best because they never fail to yield or quality. The best gardeners and farmers everywhere know Ferry's seeds to be the highest standard of quality yet attained. For sale everywhere.

**FERRY'S 1910 Seed Annual**  
Free on request  
**D. M. FERRY & CO., WINDSOR, ONT.**

### Build Concrete Siles

Any size with the London Adjustable Silo Curbs. Send for Catalogue. We manufacture a complete line of Concrete Machinery. Tell us your requirements. **London Concrete Machinery Co., Ltd., 19 Marmora Street, London, Ontario.** Largest manufacturers of Concrete Machinery in Canada.

### Corn that Will Grow

Canadian-grown seed corn. You money back if not satisfied. **J. O. DUKE, RUTHVEN, ONTARIO**

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**Get bigger profits from your farm and garden**



Planet Jr Tools are the greatest crop-producing helps you can have on your farm or in your garden. They often do the work of six men—effect a saving of time, labor, and money from the start, and do such thorough cultivation that you get an increased yield.

Planet Jr Implements are the strongest and last the longest of any implements made. They were designed by a practical farmer who studied his own garden needs, and used his skill and energy to supply them. His neighbors' needs proved just as great, and now he makes Planet Jr Tools for over two million farmers and gardeners. Every Planet Jr is fully guaranteed.

**No. 6 The newest Planet Jr Combination Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow,** opens the furrow, sows any kind of garden seed accurately in drills or hills, covers, rolls down, and marks out the next row—all at one operation. Also a perfect Wheel-Hoe, Cultivator and Plow.

**No. 12 Planet Jr Double Wheel-Hoe, Cultivator and Plow,** is the handiest implement ever made for truckers and gardeners. All cultivating parts are of high-carbon steel to keep keen edge. Specially designed to work extremely close to plants without injury. Does away with hand-weeding.

**New Catalogue Free** The 1910 illustrated Planet Jr Catalogue must be seen by every farmer and gardener who wants to "keep up with the times." Its 56 pages describe 55 Planet Jr implements—a tool for every kind of farm and garden cultivation. It is absolutely free if you fill out the coupon, cut off, and enclose in envelope or paste on postal, and mail it to us. Don't miss it.

Do it now.  
S. L. Allen & Co  
Box F1108  
Philadelphia Pa.

**Fill out—Cut off—Mail today**  
S. L. Allen & Co Box F1108 Philadelphia Pa.  
Please send me the 1910 Planet Jr Catalogue.

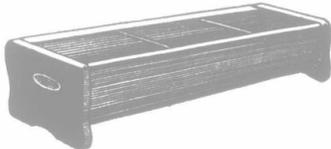
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Town \_\_\_\_\_  
State \_\_\_\_\_

Write for the Name of Our Nearest Agency.

## Send No Money Until You've Seen and Become Convinced this STEEL WATER TROUGH is Indispensable

Up-to-date farmers are replacing their unsanitary wooden water troughs with our sanitary STEEL WATER TROUGHS. You will do the same once you have become convinced of the superiority of our STEEL TROUGHS. So we ask you to mail us your name and address. Then we will send you one of our STEEL TROUGHS entirely at our expense. You don't pay us a cent until you are sure our STEEL TROUGH is simply indispensable to you. That's surely a square deal?

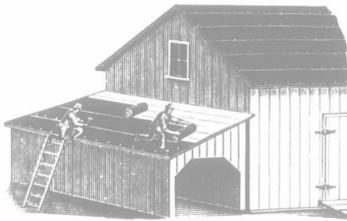
Our STEEL TROUGHS are the only absolutely sanitary water troughs. No corners or cracks for dirt to accumulate or germs to breed. Serious diseases, resulting in loss of cattle, are often caused from unsanitary conditions of wooden drinking troughs. Our troughs are made of heavy sheet steel, and extra heavily galvanized. Will not leak. Cannot rust. Nothing breakable. Nothing that will require repairs. Cattle cannot gnaw them. Practically everlasting. Shall we send our booklet giving full description? Better still, tell us to send the trough to you at our expense. Address: Dept. W.



The Steel Trough and Machine Co., Limited, Tweed, Ont.

## Mica Roofing

For steep or flat roofs, waterproof, fire-proof; easily laid; cheaper than other roofing. Send stamp for sample, and mention this paper.



HAMILTON MICA ROOFING COMPANY,  
101 REBECCA STREET, HAMILTON, CANADA.

### IF YOU WANT A BIG SALARY YOU OWE IT TO YOURSELF TO WRITE US A LETTER OR A POSTAL.

Don't you often wish you had a good position and a big salary? You see other men who have. Do you think they get them by wishing? Don't you feel if you had the chance you could do their work? Of course you could. Just say, "I'll do it," and you will. Get your pen. Write us a letter or postal. We will show you how.

**YOU CAN EARN BIG MONEY. WE WILL START YOU FOR IT.**

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Earn from \$75 to \$150 per month.

With the rapid progress of railway building in Canada it takes only two or three years to be advanced to engineer or conductor, whose salaries are from \$90 to \$185 per month.

Our free booklet tells all about our system of teaching. When writing, state age, weight and height.

Address:  
**THE DOMINION RAILWAY SCHOOL**  
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We teach and qualify you by mail in from 8 to 14 weeks without loss of time from your present work. Positions are secured; in fact, there are many openings right now if you were qualified to fill them. Our Course is the most complete treatise on the subject of Railroading in existence. We defy any school to show a course anywhere nearly as thorough. Don't tamper with your education by buying cheap bargain courses. Ours is the only School of its kind in Canada with textbooks written for use on Canadian Railways.

**CANADA POST CARD**  
The Dominion Railway School  
Winnipeg  
Canada

# EWING'S



## —the Seeds You Can Depend Upon

What's the use of having good land—of fertilizing it—of working it well—if you sow poor, old, half-dead seeds?

The best seeds—Ewing's—cost less than the land, the fertilizer or the work—but your crop depends on them. Saving cents on seeds means throwing away dollars in crops, for you cannot get good crops from inferior seeds.

Ewing's Seeds are strong—healthy—clean—reliable. They are not only sure to grow, but sure to grow good crops, if you give them a chance and weather conditions permit.

If you want to get the most out of your land, out of your work, out of your cash investment, get Ewing's Seeds. Don't accept substitutes. If your dealer hasn't Ewing's write us direct.

Send a post card for our big Illustrated Catalogue. It's free—and interesting.

Wm. Ewing & Co., Seedsmen, McGill St., Montreal.

## Reliable Seeds

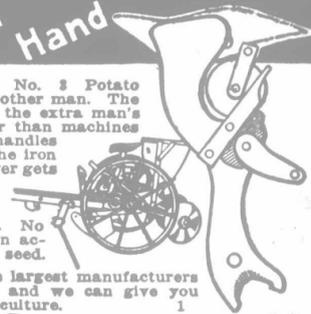
## The Tireless Accurate Iron Hand

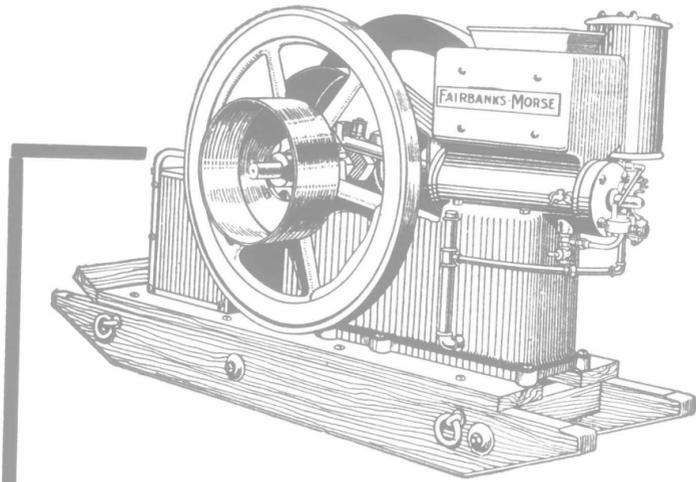
You can operate the Aspinwall No. 3 Potato Planter without the assistance of another man. The Aspinwall No. 3 not only saves you the extra man's pay, but also plants one-third faster than machines requiring two men. The hand that handles the seed on the Aspinwall No. 3 is the iron hand. Unlike the human hand, it never gets tired. It drops 99 per cent. good. You can use different sizes of seed and vary the distance of planting without requiring change of pickers. No other planter can compare with it in accuracy or handle as large a range of seed.

Send for our catalog F1. We are largest manufacturers of potato machinery in the world, and we can give you valuable facts on profitable potato culture.

The Aspinwall Mfg. Co. **Aspinwall**  
Jackson, Mich., and Guelph, Can.

## No. 3 Potato Planter





# FAIRBANKS-MORSE

## Improved Skidded and Portable Evaporator Tank

# GASOLINE ENGINES

These engines are built along the same lines as our Fairbanks-Morse Standard Horizontal Engines, with the exception that our improved Cast Iron Evaporator Tank is cast on top of cylinder, as shown in illustration.

No cooling tank is required, thus overcoming the difficulty of carrying the usual great volume of water. The lubrication difficulties of Air-cooled Engines are overcome in the above. There is very little water in the tank to take off by drain in the cold weather, thus saving time and trouble, and there is no water pump to freeze up. We provide a shield to prevent water slashing out of the Hopper Jacket.

The skidded engine is a very desirable outfit where it is necessary to move the engine, providing a means where by the engine can be drawn about on its iron-shod runners, or can be placed on a farm truck or a bob-sled.

The engine itself is Fairbanks-Morse in every respect, and ensures to the customers the best there is in Gasoline Engine construction.

Send for our FREE CATALOGUE G E 102, showing our full line of Fairbanks-Morse Vertical and Horizontal Gasoline Engines and Machinery for farm work. It means money saved for you. Write to-day.

The CANADIAN FAIRBANKS Co., Ltd., Montreal.

BRANCHES: St. John, Toronto, Winnipeg, Calgary, Vancouver.

## Bagpipes



We're the largest Bagpipe dealers in North America.

Lowrie's famous make is the kind we sell. Write to-day for

FREE CATALOGUE

We're from the Old Country ourselves, and know all about the Pipes.

Charters, Bags, Roods, Etc., in big stock.

Repairs promptly done. Write for catalogue to-day.

**ORME**

Ottawa, Ontario.

## ELECTRO BALM

CURES

# ECZEMA

Also Piles, Burns, Scalds, Sores, Chapped Hands and Face. Write for sample and booklet of testimonials. 50c. a box at all dealers, or THE ELECTRIC BEAN CHEMICAL Co. 1250 BROADWAY

**CENTRAL Business College.**  
**STRATFORD, ONT.**  
 A Commercial school of the highest grade. A school without a superior in the Dominion. Catalogue free.  
**ELLIOTT & McLACHLAN, PRINCIPALS**

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MEMORIAL BELLS A SPECIALTY

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BALTIMORE, Md., U. S. A.

Established 1856



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The Original Mt. Gilead Hydraulic Press

produces more cider from less apples than any other and is a

**BIG MONEY MAKER.** Sizes 10 to 400 barrels daily. Also

cider evaporators, apple butter cookers, vinegar generators, etc.

CATALOGUE FREE.

THE HYDRAULIC PRESS MFG. CO., 110 Lincoln Ave., Mt. Gilead, Ohio.



## 12 inches make one foot

the Standard of measure.



Durability—Efficiency—Sanitation—Convenience—Ease of operation—Simplicity—Accessibility—Appearance—Noiselessness—Design—Range of adjustment—Comparative cost—are the inches of merit found only in full in the

## DE LAVAL

## Cream Separator

THE STANDARD

The De Laval Separator Co.

173-177 William Street

MONTREAL

CATALOGUE FREE

AGENTS EVERYWHERE

WINNIPEG

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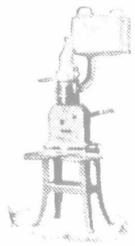
SCHOOL fires are much more frequent than necessary, and so costly in life and money that no precaution which will prevent them is too expensive. "Classik" Embossed Steel Ceilings and Walls afford the cheapest means of fire-proofing any building. Sanitary too. Invisible dust-proof seams in which no dirt or germs can rest. Last forever without cracking, falling or becoming discolored. Hundreds of beautiful, classic designs to choose from. Pleasant school rooms make work easier and solve half the truant problem. Catalog "A" showing designs suitable for schools, churches, residences, etc., free on request.

The Galt Art Metal Co., Ltd, Galt, Ont.  
 WINNIPEG—DUNN BROS.

## Galt "Classik" Ceilings

\$15.00 AND UPWARDS.

## The DOMO Separator



Excels any other separator in the world. Our liberal offer enables you to prove this. Our prices for all capacities, SIX SIZES, is astonishingly low. The quality is HIGH. Our machines are well built, up-to-date, handsomely finished, Skim Closer, Turn Easier, are Durable and Guaranteed. Thousands in use. We send them to you on trial, FREIGHT PREPAID, and if YOU are not satisfied, return it at our expense. We take ALL the risk, which gives Ours a Special Trial Offer. Testimonials. Remarkably Low Prices, and Easy Terms of Payment. It's Free.

**DOMO SEPARATOR COMPANY,**  
 Brighton, Ontario.

## Marlin



Model 1894

Repeating Rifle

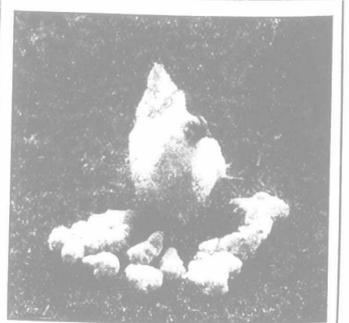
This rifle is built for settled districts, where good range and killing power are desired, with safety to the neighborhood.

The Marlin .25-20 is a light, quick-handling, finely-balanced repeater, with the solid top, closed-in breech and side ejection features which make Marlin guns safe and agreeable to use and certain in action.

It is made to use the powerful new high velocity smokeless loads with jacketed bullets as well as the well-known black powder and low pressure smokeless cartridges, and is the ideal rifle for target work, for woodchucks, geese, hawks, foxes, etc., up to 300 yards.

This rifle and ammunition, and all other Marlin repeaters, are fully described in our 136-page catalog. Free for 3 stamps postage.

The Marlin Firearms Co., 114 Willow Street, NEW HAVEN, CONN.



## "The Kodak on the Farm"

A beautifully-illustrated little book containing a score of pictures that show how interesting the Kodak may be made in the country.

Free at your dealers or by mail. CANADIAN KODAK CO., Ltd. Toronto, Canada.

**Seed Grain** Improved Ligawa Oats from the 5th year hand-selected seed. Also Mandseuri barley. All seed well cleaned and graded. **Wm. Barnet & Sons, Living Springs P. O., Ont.** Fergus station, C. P. R. and G. T. R.

# The Farmer's Advocate

## and Home Magazine

"Persevere and Succeed."

Established 1866

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1976.

Vol. XLV.

LONDON, ONTARIO, MARCH 3, 1910

No. 910

### EDITORIAL.

It is not so essential that a public man be saying to-day precisely what he said twenty years ago, as that his purposes and plans are sound and sincere. "New occasions teach new duties."

Buy your seed early. Purchase by sample, testing both the sample and the seed received when the order has been filled. If thought necessary, a sample may be sent to the Seed Laboratory, at Ottawa, for test.

A pair of 1,700-pound drafters were purchased in Toronto by a milling company lately for \$550. Several other horses of top quality brought \$235 each. The general prices for drafters was \$180 to \$210. "Nuff said."

To refresh your memory regarding the provisions of the Seed Control Act, and get posted as to the nature of the amendments now being sought, read Mr. Raynor's article in the Farm Department of this issue.

One hesitates to comment on the price of hogs these days, lest figures mentioned will be eclipsed before the ink is dry. Who knows but that ten dollars a hundredweight will be realized for live hogs before this paragraph strikes the reader's eye?

What with ordinary and preferential, maximum and minimum tariffs, surtaxes, rebates, conventions and treaties, besides bonding and other special privileges, international tariff relationships are commencing to make Chinese puzzles look transparent and simple. Surely the reduction ad absurdum will soon be reached.

"I have only begun to realize," remarked an apple-grower and buyer to us recently, "how much I have been missing by not having your paper all these years. Since subscribing last fall, I have been delighted with it. The Christmas Number alone contained practical information worth two or three times the subscription price."

"The Farmer's Advocate" is no enemy of the dog. Most of the members of its staff keep or have kept dogs, and considerable space has been devoted in these columns to appreciative consideration of canine attributes. But we take the position that anyone who does not think enough of his dog to pay a dollar tax does not deserve to have one, and very few people need two.

There is an old saw, that those who get people into trouble should help people out of it. Those who keep dogs are the means of getting sheep owners into a great deal of trouble and expense, and it is only scant justice that they should, by means of a dog tax, contribute to a fund to partially reimburse sheep-owners who sustain losses, which for any reason cannot be recovered from the owner of the dog.

There are all kinds of ways of romancing. One of the speakers at the poultry institute, at Guelph, is reported as stating that if the \$625,000,000 income of the American hens were standardized at 5 per cent., it would place their value at \$1,500,000,000, equipment not considered. This is imagination run wild. Instead of the hen's value being placed at ten or twenty times her income, the annual income should exceed by three times her capital value. Even at that the chickens make a good showing.

An examination in milk-testing by school children was tried, with satisfactory results, at a show in Australasia. Separate papers were set for children under ten, and those between ten and thirteen. Here is a most excellent idea. Milk-testing should be done in every rural school. It would afford the very best kind of exercise in mathematics, while at the same time opening the children's eyes upon a fascinating field of great practical value, and familiarizing them with an art every cow-owner ought to know. That is the kind of agriculture to teach in the public schools.

The Ontario Government Milk Commission has issued its report dealing with the condition of the milk supply of Ontario cities, the laws at present on the statute books of the Province with reference to milk, and a comparison of these with regulations in force in other countries and cities. The situation in Ontario, in the judgment of the Commissioners, is such as to call for more rigid inspection of milk at the source of supply by Boards of Health, the establishment of infants' milk-supply depots, and the fixing of a per cent. of fat and solids standard for milk in order to prevent adulteration. They also recommend that cows showing physical signs of tuberculosis be removed from dairy herds, and that in cities of over 50,000 milk should not be sold in shops except in bottles or other sealed packages. They also believe that, after all is done, greater care of milk is needed on the part of the consumer.

That legislation enacted, pending, or morally certain to be introduced and passed, in various States to the South, will within two years practically close the market for Canadian clover and grass seeds harvested from lands that are polluted with noxious weeds, is the significant assurance of Dominion Seed Commissioner Clark. Remedy: sow clean seed, fight weeds, and, when growing seed, clean it in the field by eradicating the weeds before the crop is harvested. The time has come to make a fight for clean farms, and we cannot well do it by raising and marketing weed seeds. Mr. Clark's other statement, that, to secure the more strict observance of the Seed Control Act among farmers this year, an additional number of seed inspectors are being employed, is also worth heeding. Comply with the law, and keep out of trouble. The law requires nothing that good farming practice and business honor would not demand apart altogether from legal enactment.

#### Tax All Dogs.

To eliminate "the joker," by means of which an excellent dog-tax and sheep-compensation law has been rendered inoperative in many municipalities, is the main purpose of Mr. Bowyer's bill to amend the Ontario "Act for the Protection of Sheep, and to Impose a Tax on Dogs." The bill also aims to assess a double tax (\$2.00) on a second dog kept by the same owner, and to tax bitches \$5.00 apiece, instead of \$2.00, save in the case of kennels of pure-bred dogs, which might, as now, be granted a blanket certificate for the sum of \$10 per annum. This bill is in substantial accord with the tenor of the notable discussion which occurred at the Winter Fair in Guelph in December, 1906, and will commend itself to all fair-minded men as reasonable and just. The loophole in the old law, by which, on petition of 25 ratepayers, any municipal council might repeal the dog tax within its township, but which did not provide for reimposition of the tax on petition to that effect, has been a grave injustice, which should be remedied at once. The time has come to take action, and the bill ought to pass.

#### Barn-plan Competition.

Since the days of the pioneers in the older Provinces, a very great change has come about in the style of the farm buildings in use. Not only have the log houses of the early settlers given place to those built of lumber, brick or cement blocks, but the interior arrangements have also undergone changes almost as great. Instead of one large room serving for kitchen, dining-room and parlor, with one bedroom, in addition, on the ground floor, and the upstairs part one large, undivided, well-ventilated sleeping-apartment, no farmhouse of the present day, judging by the plans received in competition, is strictly up-to-date unless there are, besides the full complement of rooms on both first and second floors, closets to the bedrooms, a bathroom, with complete water system, conveniences such as dumb waiters in the kitchen, and all heated by furnace.

The barn buildings have also undergone like transformation. When one of the settlers of early days had at last succeeded in getting a frame barn, 30 x 50 feet, erected in addition to his log outbuildings, he felt as if there was no more to be done in that line. But, as the area under cultivation increased, and more stock was kept, additional room had to be provided, and so there was, from time to time, another little building added—a shed, horse stable, sheep house, pigpen, and by and by another barn—until at length the bill for shingles for the cluster or string of buildings became serious. Then began the era of tearing down and rebuilding in one or two compact structures all that was needed for storage of crops, the stock being housed in the basement. This era has continued until the present time. The use of cement concrete for basement walls and stable floors has aided in making this style of barn-building popular. In order to secure dryness and better insulation, air-spaces in the cement wall are desirable. Conveniences in the manner of getting fodder to animals, and in the removal of manure, combined with more systematic arrangement of stock in the stables, have reduced the labor of attending to farm animals very materially. Taken altogether, a complete set of modern farm buildings costs a good deal of money, and has quite an imposing appearance.

Fashions in the layout of stables change, as they do in everything else. We note that the use of the litter carrier has, to a considerable extent, taken the place of the team and sleigh for cleaning the stables. In harmony with this change, there is a tendency to have rows of cattle across the building, rather than, as has been the vogue in some sections, in a long double row lengthwise. The long-row stable has much to recommend it, besides the convenience of cleaning out with a team, however, and even where a litter carrier is used for that purpose, it could be handled with less trouble and fewer tracks than in a number of short cross rows. Another feature in many modern barns is the use of box stalls, which have a place in most of the plans received in competition. Cement silos, of course, are taken as an essential part of the equipment. A recoil from the system of having water constantly before stock is apparent, several having, instead, a covered yard, with water trough, where cattle may get a little exercise, as well as water.

The judges in the barn-plan competition have little hope of pleasing everybody in their decision. They were quite aware that some plans might be the very best possible for the conditions they were designed to suit, and yet not be suitable for the average farmer. Some of these are published along with those to which prizes were awarded. One competitor had far too lengthy a description, while others were scored low because

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## THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE  
DOMINION.

PUBLISHED WEEKLY BY  
THE WILLIAM WELD COMPANY (LIMITED)

JOHN WELD, MANAGER

AGENTS FOR THE FARMER'S ADVOCATE AND HOME JOURNAL,  
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they were lacking in that respect. One comprehensive plan was ruled out because it existed only in conception. Measurements were lacking in some cases, and in one case only the basement plan was given. All these things had weight in determining the decision. Clearness of plan and of description also counted for a good deal. The difference in this regard will not be apparent in the neat engravings reproduced from the artist's redrawings.

The chief difficulty with the nineteen excellent barn plans received was not in discovering those that were worthy of a prize, but in deciding which were the most worthy. "Farmer's Advocate" readers will doubtless be able to get valuable suggestions from the published results of the hard study of practical men which appear in this issue.

### Constructive Politics for the Farmer.

The attitude of public men to agriculture is a fair subject for consideration when Federal and Provincial Parliaments are assembled to discharge their legislative functions. In Canada, so peculiarly fitted for agricultural pursuits by nature and the traditions of its people, the relation, speaking broadly, is favorable. At the political picnic, or in the conventional address of welcome, it may become perfunctory, but at periods like the present in the country's development, it is the tangible expression that counts if progressive measures are to be kept in right relation with the comparative importance of the industries concerned. The oldest of the country is yet new, and covers half a mighty continent with almost every possible condition of soil and climate. We are embarked in every branch of agriculture, and must cope with an illimitable array of pests, including weeds and diseases. Our own population, and other peoples looking largely to Canada for supplies, are becoming more exacting as to the condition and quality of their food and raiment. Already, the nation of 80,000,000 people south of us proclaim their approaching inability to feed themselves, and Great Britain will take

more, rather than less. The demands of militarism and industrialism make Germany hungry. To develop and conserve is, therefore, the dual problem of Canada.

Other nations are tremendously alert, and we cannot lag. They are gathering by scores and hundreds our brightest and best-trained young men into their service, as competitors with Canada. Will it not pay this undeveloped Dominion to keep them here, and compensate them adequately, when there is work pressing for the doing in institutions or agencies devoted to agricultural education and research? Some of our good people can hardly be satisfied as to the extent we should go in naval equipment; we are erecting baronial palaces for art and curios, and manning without stint public departments perhaps distantly utilitarian. There can be little doubt, as was pointed out at one of the sessions of the House of Commons Committee on Agriculture, by M. S. Schell, M. P., the chairman, not long ago, that the wealth which comes to the country through agriculture is vastly more than that which comes from the expenditure of millions in other ways that receive popular approval and the approbation of public bodies. Is it not, then, absurd and humiliating that agriculture should have to go begging at times for adequate recognition in the National or Provincial estimates for public service? We cheese-pare over a few thousands, and hand out millions with alacrity. The time has come for a regenerated public sentiment on this question.

By way of illustration: The Province of Ontario has specially qualified men, graduates of the Agricultural College, representing the Department of Agriculture in less than a dozen counties out of nearly half a hundred, and the work of some of these men has already been a stimulus to agricultural education, and of much value to their districts, and in some cases to the whole Province. Would it not pay Ontario a handsome dividend to have three or four times as many of these men at work promoting promising lines of agriculture in their respective localities, and keeping the Department at Toronto and the Agricultural College in direct touch with the situation? The judging schools, special classes and demonstration work carried on by them is a wholesome incentive, particularly to young men.

Take another case: To protect the health and business interests of the people, we are building up with infinite care and ability, with headquarters at Ottawa, an efficient meat and food inspection and health of animals service, covering all Canada and all packing establishments having an export or interprovincial trade. Disputes or differences of judgment arise locally as to cases of carcasses condemned by inspectors, or regarding coloring matter or other materials used by manufacturers. Portions must be sent for determination to Ottawa. Then, again, great quantities of serum, in specific doses, ready for injection, are made and distributed to detect and combat tuberculosis and anthrax in cattle, or glanders in horses, and so on. For a work of such vast importance, there is, by the Central Exp. Farm, at Ottawa, a modest little laboratory doing splendid work with the means at hand. But will our readers credit the statement that the staff consists of one man, an assistant, and the caretaker? They are already crowded for space, and the analytical work is sent over to the Chemist of the Experimental Farm, who has his hands full of other problems. Additional cases might be cited where work is already pressing for the services of experts, and avenues of fresh endeavor open for the promotion of agriculture. We believe that the public sense will sustain the Minister of Agriculture and his chiefs in a well-considered and decidedly aggressive policy.

In the House of Commons and Senate there is a substantial—and, by the way, there should be more of them—body of men associated in their private capacity directly with farming. At every available opportunity, these men, together with those of other professions representing almost purely agricultural constituencies, do well to make themselves felt solidly on behalf of these interests. The game of politics is engrossing, and sparring for party advantage is betimes entertaining, but on Parliament Hill, to the cursory observer, agriculture does not receive the unprejudiced attention

of the rank and file of M. P.'s that it should. Disinterested observers are thinking that much precious time is spent by men figuring as debating leaders in the doubtful political game of simply discrediting each other. We trust that such cases will grow more exceptional as they are frowned down on both within and without Parliament, and that we shall see a steadily-growing body of fearless, independent sentiment in support of constructive measures in the interests of agriculture, such as the Search for Information, Conservation, Demonstration, Transportation and Marketing.

### City vs. Country Life.

BY ONE WHO HAS HAD EXPERIENCE OF BOTH.

Editor "The Farmer's Advocate":

You ask for observations regarding city vs. country life, and the outlook for men of energy, etc., on the farms and orchards of Ontario.

The question is being asked just now seriously. What are the causes of the increased prices of all farm products? The principal causes are the general poor results of unscientific farming, and the desire to live in cities and towns. This desire applies to all classes.

One can say we can understand why the rich gravitate to the city, with its varied advantages of social life, pleasure, education, and the ostentatious display and rivalry of wealth, but cannot understand why the poorest class, the laborer, the artisan, the farm hand, do; but human nature is pretty much the same in all classes. They desire more social life and pleasure than is obtained in the country.

It is almost incomprehensible to understand the discontent, or, rather, the desire of the poor to live in villages, town or cities. A mill-owner in the country north of Toronto, offering a big wage for a night watchman, told the writer he never could retain one for any length of time. Their repeated statement was, "It was too lonely; they would rather starve in Toronto than keep the position." A large manufacturer, just outside of Toronto, informed the writer that he had great difficulty in obtaining labor, and had always to pay higher wages than in the city. The writer has difficulty in getting labor from a nearby village.

How to change this desire for urban life is a problem. Probably it can be slowly accomplished by such papers as "The Farmer's Advocate" and others proving that, for the greater majority of young men who do not inherit fortune by the accident of birth, a competency for old age can be more easily obtained in the cultivation of the land, and with less mental strain, than in city life. It will also be necessary to instill into the rural community a higher ideal of living and social life. It is evident that in the cities, with the concentration of labor and immense capital in large manufacturing plants and large departmental stores, with their thousands of employees in one concern, there is no future for the great majority of the employees. With the disappearance of small factories and small independent storekeepers, the day has disappeared for a moderate competency for the many. It is the day for large fortunes for the very few, and the treadmill for life for the many in the cities.

In business, the management is always seeking to reduce cost, and increase profits by every economy and improvement of profit, but in Canadian farming there is much waste—waste of manure in the barnyard, left for months to be leached by rain and weather; waste of time when necessary draining could be done, increasing the profit of the farm in greater yields of crops and value of the farm. The net profit could be further increased in farming and orcharding by the judicious application of more labor and turning under of clovers.

In comparison: In business, even if one has capital, there is no assured success, but without it, it is almost impossible. Cash discounts, ranging from 12 to 20 per cent. interest per annum for the cash buyer, almost precludes success to those buying on time. Whereas, in agriculture, if one has a little capital, supplemented with certain virtues, as common sense, industry, sobriety and economy, every one should be able to succeed, and gain a competency for the "glorious purpose of being independent."

If a young man has extra ability, and a predilection for business or the professions, let him try it. There is a greater goal for a few, no doubt.

In the country, the social life could be improved by the farmer building a house on his place for a married hired man; this would be more agreeable and satisfactory to the employee, as well as to the employer, and his family. The farmer's house could always, at but little expense, be made more comfortable, by having a bathroom, etc., with hot-water attachment to boiler on kitchen stove. The future house should be built near the main road, with

kitchen and dining-room at right angles to front part of house, thereby having kitchen and dining-room facing road. Wife and family should be encouraged in any hobby they may have, so as to lessen the monotony of housekeeping. There should be more sociability, more trips. Let the wife and family go to all the soirees, picnics and garden-parties in the vicinity. Encourage the family to read good literature, and provide it.

"The Farmer's Advocate," by showing the uncertainty of success in city or town, and the certainty on the farm, and urging a more social and ideal life in the country, should help to keep the young men of energy on the farm.

Halton Co., Ont. PAUL CAMPBELL.

**HORSES.**

**The Standard-bred Horse.—I.**

By James A. Fraser, New Glasgow, N. S.

The Standard-bred horse is the only creation of his species that can be credited to North America. Perhaps the word "evolution" should be used, instead of "creation," but there he stands, solitary and alone, the only equine that owes his birth to the northern half of this continent.

Where did his ancestors originally come from? It is not easy to answer this question accurately nor definitely. But, roughly speaking, he came from Quebec, from the Maritime Provinces, from Vermont and New England generally, and thence was transplanted to other States of the United States, and to Ontario and other Provinces of the Dominion of Canada.

The first-known horses of the tribe came from Quebec, Vermont, Maine and Massachusetts; thence they were taken to other parts of North America, and wherever taken and used for breeding purposes, they stamped their image and character on the breeds with which they were crossed. The Morgans, among the progenitors of the Standard-bred horse, were not large animals, but they were probably the best general-purpose horses on the continent. They could trot, some of them fast, walk fast, were good farm horses, and for winter lumbering, where the snow was deep, were unrivalled. In such places, under deep-snow conditions, a team of Morgans were worth a carload of Percherons or Clydesdales; neither of the latter can, as a general rule, go through deep snow, and that, in a country like Maine, Quebec and the Maritime Provinces, renders them undesirable as a general-purpose horse, while a sturdy Standard-bred fills the bill to a king's taste.

Away back in the early part of last century, Canadian Pilot was taken from Quebec to Kentucky, and there coupled with the hot-blooded mares of that State. From him, in the third generation, came the dam of Maud S., 2.08½, the great trotting champion to a high-wheeled sulky; and the same mare, Miss Russell, dam of Maud S., 2.08½, by Pilot Jr., 12, son of Canadian Pilot, gave the Standard-bred Nutwood 2.18½, a great sire of trotters, and the greatest trotting and pacing brood-mare sire that ever lived. Miss Russell was also the dam of Mambrino Russell, a successful sire. To show in detail the produce of this remarkable brood mare, Miss Russell was, we may state, giving as our authority Wallace's Year-book for 1908, one of the greatest of brood mares, when her descendants are considered. She produced five trotters and two pacers, six sons that sired 190 trotters and 54 pacers, six daughters that produced 11 trotters and one pacer, all in 2.30 or better, among them Maud S. 2.08½, and the mighty sire, Nutwood, 2.18½. Another daughter of Pilot Jr., to the cover of Dictator 113, gave Jay Eye See 2.10, one of the first champion 2.10 trotters. Another, Tackey, 2.26, mated with Happy Medium 400, gave the great sire, Pilot Medium. Indeed, this Canadian Pilot blood flows in the veins of a large number of Standard-breds of the United States and Canada. Wherever tapped, it proves a vein rich in all that is golden in the harness horse of America. How did Canadian Pilot originate? You can search any man for

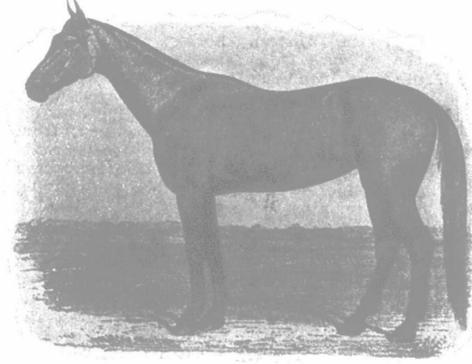
to them. They could outwalk, outrun, outwork through a winter's snow—and there was snow in those days—any heavy, lumbering team of horses that ever lived, at least, in these parts.

Now, these horses are not, in most cases, Standard-bred, but much of the blood flows in their veins, and their basic origin is much the same. They are not fast trotters, but most of them fast enough for road purposes, while now and then one of them can hike along fast enough to keep out of the dust. In earlier days, when wagons had not come into general use, they were used under the saddle, and good saddle horses they were—sure-footed, strong-backed, and with great endurance. To understand just how good they were, and what fast trotters they were, we refer the curious to the first chapter of "The Clock-maker," a book written by "Sam Slick" (Justice Haliburton) between 1820 and 1825. The author thought him then as good a horse under saddle as Devereux, of Cleveland, thinks him now.

But the Standard-bred, as he is known to fame to-day—and a famous horse he is—had infusions of other and faster blood, notably from Imported Messenger, a Thoroughbred that came from England to the United States in May 1788. This horse and his sons seem to have increased the speed of the trotter wherever their blood was intermingled. It gave the Morgans, the Pilots, and other native trotters, length of limb, more lung power, a greater stride, and the indomitable racing qualities of the English Thoroughbred. Not that there were not fast trotters fifty years ago without Messenger blood in their veins, among them Black Hawk 5, and his renowned son Ethan Allan 43, neither of which possessed, as far as is known, any Messenger blood, but the blood lines of those two horses, notably the first named, are frequently found in the pedigrees of the fastest trotters of the present day.

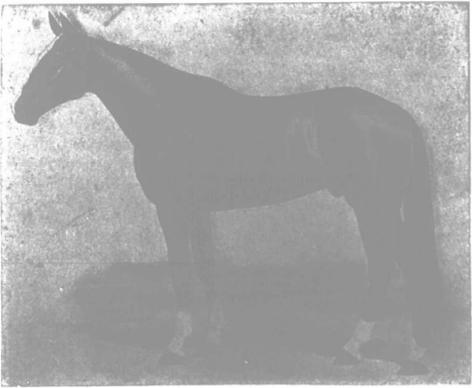
As numbered in the Trotting Horse Registry, Abdallah, a grandson of Imported Messenger, is given the first figure. But, for the sake of accuracy—it is better to be accurate than grammatical—let us state that the numbering of so-called Standard-bred horses was begun on a technical basis, and was purely fanciful on the part of the author of the plan. However, he laid the foundation well. He selected as the leading progenitor of the breed the one from whom came its greatest speed. Those immediate descendants of Imported Messenger were larger horses than the Morgans, but not so good-looking nor so strongly put together. The dam of Abdallah 1 was the trotting mare Amazonia. This mare Amazonia was undoubtedly a product of the old American trotting breed to which we have referred. She was a trotting mare. To the service of Mambrino, son of Imported Messenger, she produced Abdallah 1. Presumably, she controlled the gait of her illustrious son, as her kin did with the stallions mated with them. Abdallah 1 begat three 2.30 or better trotters and one pacer, but he begat the dams of seven 2.30 or better trotters, among them the dam of the great Goldsmith's Maid 2.14. Abdallah 1 only begat one producing son, at least, of any note, Hambletonian 10, popularly called by writers on the Standard-bred horse, "the great progenitor of trotters."

"Hambletonian 10 (Rysdyk's), b. h., foaled May 5th, 1849, by Abdallah 1; dam Charles Kent mare, by Imported Bellfounder; grandam One Eye, by Bishop's Hambletonian; great-grandam Silver-tail, by Imported Messenger." So is recorded the pedigree of the "great progenitor of trotters." It will be seen that he was inbred to Imported Messenger, with a strong outcross to the English trotter, Imp. Bellfounder, and a remoter outcross to



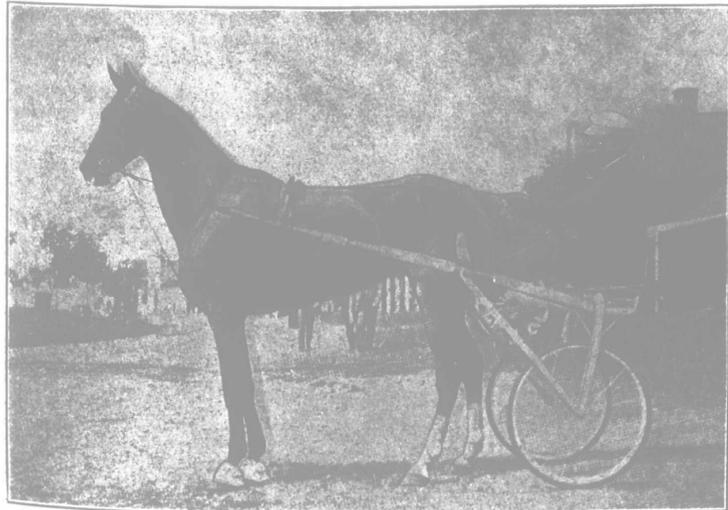
Maud S., 2.08½.

that, and fail to discover it. Like Topsy, in Uncle Tom's Cabin, he "just grewed" in the peculiar environments of the Province of Quebec. He belonged to a type that in the seventeenth century was evolved to suit the peculiar conditions in the Northern States and Provinces of North America. Up to a comparatively few years ago, all the lumbering and farm work of at least three States and four Provinces were done with these original trotting and pacing horses. The stage coaches of



Joe Patchen, 2.01½, Pacer.

the old days were hauled by them. In these old days, too, when these States and Provinces were largely engaged in shipbuilding, the timber was hauled with these horses, assisted by the patient ox—another good snow-draft animal. Anyone who remembers or gathers by reading, a knowledge of these small—seldom reaching 1,100 pounds—sturdy horses, must feel like taking off his hat



Lou Dillon, 1.58½.



Roadster Pair.

the trotting mare Amazonia, the dam of his sire. Hambletonian 10 sired 41 trotters in 2.30 or better, chief among them Dexter 2.17½, whose name was in every horseman's mouth forty years or so ago. Faster and better trotters than Dexter have lived since his day, but it is doubtful if any one of them was so popular, unless we except the daughter of his half-brother, Abdallah 15, Goldsmith's Maid 2.14, the first trotter to go as fast as that. But it was as a progenitor of trotting sires and dams that Hambletonian 10 achieved his greatest distinction. From his loins came forty trotters in 2.30 or better, 150 sons that have sired 1,491 trotters and 223 pacers in 2.30 or better, and 80 daughters that have produced 111 trotters and 8 pacers in 2.30 or better. Is it any wonder that he is called "the great progenitor of trotters"? In the second and third generations, the offspring of his sons and grandsons, which have made records in 2.30 or better, number up in the tens of thousands.

To prove that Hambletonian was a great progenitor, we may cite that his son, George Wilkes 519, exceeded him. George Wilkes 519 was a great trotting horse, and acquired a race record of 2.22, and won many a hard race. As a sire, he exceeded his own sire, having begotten 72 trotters and 11 pacers, who made records of 2.30 or better, 103 sons who bogat 2,036 trotters and 1,016 pacers, 109 daughters who produced 142 trotters and 56 pacers who made records of 2.30 or better. The most noted of the sons of George Wilkes 519 who became sires are: Alcantara 729—118 trotters and 52 pacers; Baron Wilkes 4758—110 trotters and 31 pacers; Gambetta Wilkes 4659—101 trotters and 103 pacers; Guy Wilkes 2867—81 trotters and 11 pacers; Jay Bird 5060 (whose dam was a Morgan mare)—111 trotters and 13 pacers; Wilton 5982—112 trotters and 24 pacers; Alycane 732—50 trotters and 9 pacers (Strangely, the Yearbook does not give this great horse a place under his sire, but, to follow his career further, it may be stated that his sons bogat 370 trotters and 178 pacers, and 32 of his daughters produced 47 trotters and 16 pacers). Alycane died when only about ten years of age. Among his other sons, he sired McKinney 8818, 2.11, perhaps the greatest sire of extreme speed that has ever lived. He has about a score and a quarter in the 2.10 list, and 96 trotters and 21 pacers in 2.30 or better, while his sons have begotten 64 trotters and 22 pacers with standard records. Indeed, George Wilkes 519 was a greater sire than his own sire, Hambletonian 10. The pedigree of the dam of George Wilkes is unknown, and she may be written down as one of the old-time trotters that the environments of the horse tribe in North America developed.

(To be concluded.)

### Will Miller's Bill Injure Horse-breeding?

Editor "The Farmer's Advocate":

As an observer of the effects of gambling and racing on the body politic, I have not the slightest hesitation in saying that the opponents of the bill have manufactured a bogey. Some are earnest men, really believing what they state to be facts; others are, of course, arguing for an interested purpose.

The discussion pro and con regarding the bill seems to be waged over the problematical effects of the bill on racing, and its further influence (solely inimical, according to some worthy gentlemen) on the breeding of Thoroughbreds.

It has been urged that, unless racing is encouraged, the breeding of the race-horse will decline and dwindle. The breeding of the racing type of Thoroughbred might, and if that was the result it would not be an unmixed evil.

The champions of the racing Thoroughbred, who are really skulking behind the other and more useful type of the breed, hark back to what the Thoroughbred is said to have done for other breeds of equines, but have carefully omitted or suppressed any of its defects; they are advocates rather than justifiers.

The opponents of the bill, in their championship of the race-horse, have overlooked three things: First, that Great Britain, where the Thoroughbred is kept, has a large number of wealthy and more or less idle men, who for amusement, breed, race and bet on horses. Second, in Canada, where these conditions do not obtain, any breed to be worthy of the support or countenance of our Governments, should be able, unmistakably, to demonstrate its utility. Third, in Great Britain, the home of the breed mentioned, comparatively few studs are to be found, and those few in the hands of men who care not as to the showing on a profit-and-loss account. Even there a cry is continually being engineered or raised, that the Government should encourage the breeding of army remounts; or, in other words, subsidize the Thoroughbred stallion!

We need not here consider the first item, but the second should be, viz., the utility of the Thoroughbred! Can anyone point to or produce statistics for Canada or the United States, show-

ing that the breeding of Thoroughbreds has proven profitable or worthy of encouragement? In the majority of cases men who have attempted to make a living by the breeding of Thoroughbreds are financial derelicts. Further, let us look back to the Western ranches, where the Thoroughbred blood was largely used. Beyond the production of a few noted running horses, such as Grey Eagle, the horse industry of that area of country was in a parlous condition, and did not revive, despite the visits of British remount men, until the Thoroughbred stallion was abandoned, and the draft, Hackney or French Coach stallions substituted. Further, everybody who has had experience of the Western horses at that time, knows the produce from the ranges were wild, small, of poor conformation, untractable, and made no money for anybody. The Thoroughbred, of the racing type, was the great improver (?) used by our brothers, the remittance men, from 1875 to 1895. The change to the other breeds has been beneficial. True, some of the foundation stock had considerable of the blood of the running horse, but it remains to be proved that it was an advantage. Is it not a fact that the racing fraternity care not two buttons for the welfare of the breed, and that the Canadian and American turf influence has resulted in a greater number of weedy equine specimens than ever before? Is it not also a fact that the continued racing of the Thoroughbred renders it a less desirable horse to use for riding or driving, and also tends to nervousness and irritability and ungainliness in the breed and its grades? No other breed has to its credit (except it be its contemporary, the Standard-bred) such a percentage of equine misfits, or has begotten or perpetuated so many undesirable qualities or unsoundnesses; and now, forsooth, to cap all, the breed is to be used to bar and hinder moral progress.

The Thoroughbred must be judged from the standpoint of utility, if it is to have any place in Canadian horse-breeding; e.g., in the breeding and production of hunters, jumpers, saddlers, ride and drive horses, horses for fire departments, etc. It is well, while on the utility phase of the question, to refer to the Dublin (Ireland) Horse Show; practically a show of the Thoroughbred and half or quarter breeds—all of the utility type, and not of the racing type—and where will we find such an aggregation of buyers for horses carrying Thoroughbred blood?

The assertion that the courage of the Thoroughbred depends on its being raced, is on a par with several statements made by opponents of the bill. The idea is more traditional and nebulous than these authorities would advance in support of an argument on any other important question. It is also common knowledge in Canada that the deterioration of a farmer begins with his attempt to breed race-horses, and the business of horse-breeding in Canada is practically in the hands of the farmers. Further, so soon as a man feels that he considers the instincts of a gentleman, or near-aristocrat, he thinks that attendance at a race-course and the placing of a bet will put the hallmark upon him.

So far as Canada is concerned, she can afford to leave the breeding of Thoroughbreds to the breeders in the Old Country, and import when necessary. Used judiciously, a dash of blood is a good thing, and the use of the Thoroughbred stallion on mares of good size has proven beneficial, but the stallion must have lots of substance, and is better not to be of the extreme racing type. The sire needs to have substance, bone, and be a good-tempered horse if satisfactory results are to be expected. In my opinion the Miller bill will, by prohibiting betting, have no detrimental effect on the breeding of horses of use, and, in addition, will undoubtedly tend to lessen the crop of defaulters, absconders and ruined homes, which are part of the legitimate and frequent progeny of race-track gambling.

OBSERVER.

### Horse-breeding Problems in Australia.

There is a pressing need for improving the methods in vogue of breeding horses the world over. The veterinary surgeon is a necessity. But the great difficulty is to get legislation passed enforcing certification. The various Australian agricultural shows are wrestling with the movement by refusing to admit to the arena any unsound animal. It has astonished the most ardent advocates of the reform the number of stallions found to be unfit, in most cases amounting to 33 per cent., and sometimes running up to 50. The trouble is that now, in the absence of compulsory examination outside the show-ring, the careless owner will not enter his horse for the show if he thinks there is anything wrong, and such animals are still under offer to the unsuspecting public. No doubt the drastic change will come in time. Meanwhile, the public are thankful that an improved method of horse-breeding has got a start. A novel proposal was recently made in New Zealand. It was that the Government should take £2,000 a year from the totalisator, and pay it out in premiums. Each of the ten Provinces of the

Dominion should receive four premiums of £50 each, two for draft horses, and two for light stallions. The premiums should be awarded by a board of five practical farmers, with a Government officer to examine the horses for soundness. The proposal was made with the hope of encouraging the production of horses for the remount service, so scare all the world over.

J. S. DUNNET.

### Canadian View of the Registration Difficulty.

Editor "The Farmer's Advocate":

In your issue of February 17th, "Scotland Yet" writes, in his Scottish letter, about a registration difficulty which reaches to the Clydesdale records of both Scotland and Canada. In a letter to the Record Office, at Ottawa, Mr. MacNeillage, Secretary of the Scottish Society, completely exonerated the firm of Smith & Richardson of any wrong; but, when your correspondent writes, "And no excuse can be offered for the mistake that was made, as the horses were well known to several persons in this country," he certainly seems to leave the impression that the firm of Smith & Richardson was guilty of a wrong.

Let me state the facts. In the summer of 1906 both members of the firm of Smith & Richardson were in Scotland buying a few Clydesdales, and, amongst others purchased, was Sir Henry, recorded at that time in the Scotch book as Sir Henry (13200), described in the same book as a "bay, broken stripe in face, little white on fore of leg, near fore leg dark, hind legs white to hocks; foaled June 4th, 1904." Before we bought him, we were shown his pedigree in the Scotch book of 1906, and the horse we bought answered exactly in every particular to this description. Sir Henry was imported in August, 1906, and neither by word or hint did we ever hear anything different from the above until the spring of 1909, when we were informed by letter from Scotland that a mistake had occurred; that "Sir Henry" should be "Braidlie Prince" (12871), described in the same Scotch volume: "Light bay, ratch in face; foaled March 12th, 1904." Last summer, when in Scotland, we discussed the whole matter—horse, markings and pedigree—as we had nothing to hide. Both horses could have been imported into Canada in 1906, but in 1909 only the horse with the pedigree of Sir Henry. In the fall of 1909 Mr. MacNeillage placed himself in correspondence with Mr. Brant, Accountant of the Canadian Records Office, and with ourselves, as well, saying the pedigrees had been changed in the Scotch book, and asking us to send him the certificate of Sir Henry. All this was done in cold blood, and I immediately laid the difficulty before Mr. Bright, President of the Canadian Clydesdale Association, and he considered it of sufficient importance that he at once called a meeting of his Board. This meeting was held on the 29th of October. Mr. Brant and I had all the correspondence there was, and this was gone carefully over, together with the description of the two horses, as given in the Scotch Book of 1906, and the unanimous decision of the Canadian Board was that the pedigree of Sir Henry (6104) (13200), as recorded in Vol. XV., should remain as it is. And yet your correspondent coolly says all this was done without inquiry. It would be interesting to compare the inquiries made in the two countries, and my impression is "Scotland Yet" would have to change his mind, when he says the Canadian Association has no possible means of forming any opinion or judgment. The truth is, Mr. MacNeillage knows only too well that Canadians have an opinion upon all points relating to Clydesdales.

I have been either on the Canadian Board or in very close touch with it since its inception, and I have yet to learn that we are breaking a "brotherly covenant" in having an opinion of our own.

The Canadian Board decided, on October 29th, 1909, that the firm of Smith & Richardson imported the horse known as Sir Henry, and that there should be no change in the Canadian Records. Mr. MacNeillage was informed of this, and previous to this was notified that it would be unwise either to export Braidlie Prince or any of his get. In face of this information, Mr. MacNeillage issued an export certificate for a colt got by Braidlie Prince.

The Canadian Board also agreed that the markings of Sir Henry agreed with the Scotch book, and further held that, if changes like this could be made, no Canadian was safe. Brotherly love, or no brotherly love, this will likely end the matter. Braidlie Prince (12871) in Scotland will become Sir Henry (13200), and Sir Henry (13200) will become Braidlie Prince (12871). The horse in Scotland and none of his get can come to Canada. Sir Henry (6104) (13200) will remain in Canada as he is recorded in Vol. XV. Ontario Co., Ont. WM. SMITH.

[Note.—In his letter to "The Farmer's Advocate," about this matter, last autumn, Mr. MacNeillage took pains to explain that the alleged

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error occurred through no fault whatever of Messrs. Smith & Richardson. No doubt, "Scotland Yet," in his recent letter, presumed that the fact was generally understood.—Editor.)

**Raising and Training the Colt.**

Editor "The Farmer's Advocate":

At this time of the year farmers are industriously feeding the grain, hay and root crops to their stock of horses, cattle, sheep, pigs, etc. Some are feeding sparingly, while others, who have plenty, are feeding more liberally.

So, at this time, allow me space enough to give my experiences, opinions and advice. I have been farming successfully since my childhood, and some of the main points which I found essential to success are: Learn to save the profit you make, and make it help you gain more; be honest and truthful, and always reverence your superiors and elders.

With horses, never abuse them (this should apply to all dumb animals), because gentle usage and affectionate attention always proves to be best; if they are used roughly, they will become nervous, and will be easily frightened. A pregnant mare should be placed in a box stall some time before her time is due for foaling. She should have plenty of exercise, and her digestive organs should be kept in a moderate condition. As the time of foaling draws near, the mare needs to be watched. From 24 to 48 hours before foaling, a sort of wax comes out of and congeals on the ends of the dugs. This is a positively sure sign that the foaling time is near at hand. The stall should be well cleaned and bedded. If the stall is narrow enough that the mare cannot turn and lie down crosswise, it is a good plan to keep her tied, to prevent her from lying too close to the stall or wall, so as to prevent the foal from coming, on account of its head striking against the wall. If the mare seems to have difficulty in foaling, and continues to press, without passing the foal, you should get a veterinary surgeon or some experienced man at once, because delay often means the loss of the foal, and sometimes the loss of both mare and foal. After the foal has arrived, if the sheath in which it was is not broken, break it and allow the colt to get its breath. Tie the navel string with a cord close to the body, and cut it off with a knife about three or four inches from where it is tied. Do not make any noise or fuss in the stall, especially if it is a young mare having her first foal, because she may become nervous, and possibly do it harm. Leave the colt alone for some time, until it dries off and becomes hungry enough to look for feed. If, however, the colt is too weak to get up (this is mostly found where the mare has been poorly fed or abused, so as to be in a poor condition for foaling), you should help it up, and hold it until it gets a feed of milk. Sometimes a young mare is nervous, or rather ticklish, and will kick at first. If the mare shows any signs of this, put a twitch on her nose, and hold her head up as high as possible, then she cannot kick. Get the colt started to suck, and when she finds the relief she is getting to her udder, she will soon quiet down, and become fond of the colt.

As soon as the colt gets smart, and the weather fine, the mare and colt should be turned out on grass. Do not leave them out during a rain or cold night until the colt becomes quite strong. The colt should be allowed to suck for about five months, then it should be weaned. It should not be allowed to suck more than two or three times after it has been taken from its mother the first time, but the mare should be milked by hand twice daily at first, and later once daily, until she is practically dry.

In breaking a colt, always hitch it up with a quiet working horse. Tie the horse's whiffletree to the axle, or to the roller of the sleigh, and, in most cases, if the colt is not willing to go at first, the horse will be able to take the sleigh and colt with it. Do not abuse or frighten the colt, but take things quietly, and you will get along better. Do not drive the colt too much at first, but repeat the hitching of it until you get it to go quietly and understand what is expected of it. After you have it well broken in the team, and have worked it some, you will find it will be easily broken to go single, if you wish to use it singly.

Colts should not be fed too heavily during the winter (in fact, no horses should be overfed), but should be kept in good healthy condition. This can be done by feeding straw, if necessary, but

along with straw give them some mangels or horse carrots, and oats according to their age. A colt just weaned the fall before will do on one quart three times a day, a year-old on one-third of a gallon, and a two-year-old on one-half a gallon. Groom and curry them often, so that it will keep their hair and skin in a healthy condition, and never water with chilly water any horse in a heated condition, because, if this is done, the horse is likely to be foundered. All things taken into consideration, successful horse-raising may be summed under the following points: Careful attention, gentle handling, moderate feeding, keeping them well groomed, and giving them plenty of exercise.

AN OLD SUBSCRIBER.  
Waterloo Co., Ont.

**LIVE STOCK.**

**Under the Southern Cross.**  
AN AUSTRALIAN CATTLE DISEASE.

The cattle disease in South Australia, known as "dry bible," which has created such mortality for years, has at last been explained. Three organisms were isolated. No. 1, in a pure form, was injected into two cows in large doses, without the slightest effect on the health of the animals. No. 2 made them very ill, but they did not die. No. 3, a most difficult organism to work out in its many phases, produced definite results. A few moments after injection the animal shivers and falls to the ground, displaying rapid breathing and much general distress. After she rises to her feet again her pulse, respiration and temperature are accelerated, and the eyes have a glassy appearance. Death generally takes place between nine and ten hours, although often the animal lingers for days. Sheep die more quickly from the organism. Strange to say, rabbits and guinea pigs do not die from it. The origin of the disease and its treatment are being investigated. The discovery is important, for the disorder has been a subject of much concern for many years, especially in South Australia.

**RECORD WOOL CLIP—BIG WAGES TO SHEARERS.**

The pastoralists who raise Merino sheep in Australia are in great humor these times. Prosperity is theirs, in every sense of the term, for the season is the top-notch for a generation, and the high prices look like retaining the present flight indefinitely. The clip this season is a record for quantity, and the quality is unrivalled in a general sense, which means fat cheques. Sheep production is proceeding on lines much more scientific than formerly, in regard to care in the breeding of the fine wools. The shearers are enjoying a happy time also, some of whom earn up to £14 per week when they get going at the big sheds. They are paid at the rate of 24 shillings per 100, according to the award of the Federal Arbitration

done in the season. In most cases the contractors have an elaborate system of compiling a record of each man's work, and, as a result, they know the capacity of each individual. The squatter who persists in getting his own shearing done is obliged to take the inferior labor offering, so that the time must come in Australia when the bulk of the shearing will be carried out by the contractors. A drawback of the future will be the fact that young men will not be encouraged to acquire the art, as the contractors have no time or place for novices.

**CO-OPERATION IN PURCHASE OF SIRES.**

Farmers the world over might do much more in the way of co-operation. It is a fine gospel—often preached, but so seldom practiced. In Australia the dairy farmers have run the game for all it is worth—with their co-operative factories, co-operative agencies, and now they are aiming at an extension of the principle to escape the hungry middleman in London, where the bulk of their produce goes for sale. But if this case be excepted, Australian producers know little of the practical benefits of combination. Every other producer but the dairyman is robbed and squeezed with great voltage whichever way he turns. Why should such a great body of men be made the sport of every trust and unscrupulous agency? The ball is at their feet for the kicking. Capital is required, of course, to fight the vested interests in the agency business, but there are a thousand and one ways that the combination would spell an immediate saving with great prospective benefits. Why, for instance, could not they do more for their mutual benefit in the way of purchasing high-class stock? It is not every man who can afford a top-notch ram, a first-class horse, or an aristocratic bull, or a pedigreed boar, for the plain reason that he has not the cash to spare. But supposing he joined with a dozen neighbors to do so, the road would be clear. Some farmers in one country district of New South Wales have just decided to buy a stallion between them. The main thing in a deal of this sort is to be straight with each other. Select a good man to buy, and be reasonable afterwards. If there is a fault-finder in the syndicate, fire him out with a loud report, and cast his money at him.

**POTATO BLIGHT.**

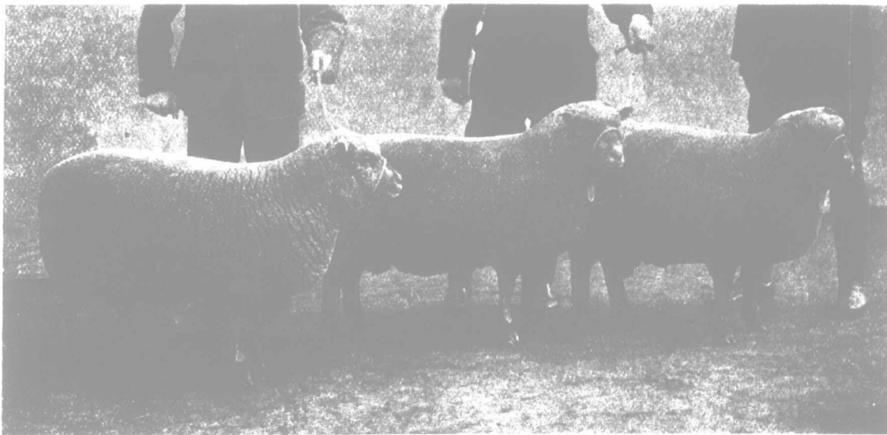
A Taranaki (New Zealand) farmer claims that a concoction made from dock-roots is a certain cure for potato blight, which has occurred in a virulent form all over Australia and Tasmania. The potatoes are sprayed with this mixture. The remedy suggests the use of bitter preparations. It is expected that the disease will be stamped out in three years by the extraordinary precautions now being taken.

**SOME HEAVY EWES AND PELTS.**

Here are some interesting records. An imported Leicester ram, shown in New Zealand by S. W. Neville, weighed 374 pounds after shearing. A Dorset-Horn ewe, reared by L. G. Johnson, of N. S. Wales, weighed 296 lbs. alive. It is claimed that this is a world's record. In the breed's native country they do not go much more than 130 lbs. weight. As a rule, in Australia they grow up to \$200. But they produce wool here fully four times as long as in England. Joseph Wyatt, of Warracknabeal, Victoria, was recently showing in his produce store a Merino sheepskin which weighed 35 pounds, although the carcass of the animal only turned the scale at 44. The wool was very short, but matted so close together that it was almost impossible to part it by hand. As the average weight of an Australian Merino skin is 10 to 12 lbs., it is not surprising that the statement was doubted, but several reliable persons who called at the store were convinced.

**MILK TESTING AMONG SCHOOL CHILDREN.**

At the last Shepparton (Victoria) show a competition was arranged to encourage milk-testing among school children, in order gradually to educate the rising generation in this direction. Separate examination papers were set for children under ten years of age, and also for those under thirteen. At the conclusion of the test the originator expressed satisfaction at the result. In most cases the answers received indicated a keen interest in the subject. The queries related to the composition of milk, common causes of variation in the percentages of butter-fat, the taking of samples for testing purposes, and others per-



Champion Pen of Southdown Wethers, Smithfield, 1909.  
Exhibited by His Majesty the King.

Court, which expires this year, and some get through 200 sheep in a day. If an agreement is not renewed by mutual conference, the Court will again be called upon to fix prices for another term.

**CONTRACT SHEARING.**

Contract shearing is a development of recent years. It has evidently come to stay, for most sheds get their work done by this plan. The contractors secure the very best men available, and they can command this talent, as they can offer these expert workers a succession of sheds, which saves the shearers worry and unnecessary travelling, and confers other benefits, enabling both parties to get the maximum amount of work

taining to the determination of the value of each cow in a herd.

#### REMARKABLE ARTESIAN WELLS.

The artesian water is the salvation of the great interior of Australia. The supply is being tapped in large areas once thought to be hopeless. In others no great depth is necessary before reaching the supply. The deepest bore is at Patchawarra, South Australia, nearly 5,000 feet, from which the water spurts up at boiling point. The greatest yielder is a bore in Queensland, which sends to the surface 3½ millions of gallons per day. The Euraba bore in New South Wales, 4,005 feet, is probably the most remarkable in the world; in that it has a finishing diameter of six inches and a flow of over a million gallons a day. Many of these bores are put down by State money, repayable during a certain number of years by the owners in the benefited area. The water is carried for miles in small channels.

#### TIPPING THE HORNS.

Dehorning is regarded by some as very necessary in the case of cows which damage each other by the practice of goring. Others say it is cruel. One dairyman says that he has a plan which obviates the cutting away of the horns. He simply saws away the point of the horns to about a quarter of an inch, and declares it is incredible the effect it has, while the operation is no disfigurement to the animal. He has seen some of the worst rippers completely end the habit after this has been done. Apparently they find that they have not the power they formerly possessed, or it may effect some nerve in the horn. Usually when farmers cut the horn they quite destroy the appearance of the cow, and for this reason men shrink from doing it. After the quarter of an inch of the horn is cut away, the rough edges may be filed smooth, and no one would ever notice that anything had been taken off. But the cow is conscious of it, and she commences a life of peace with her neighbors.

#### SHEEP KINGS AND BARONS.

Sir Thos. McCaughey, of Coonong, N.S.W., used to be Australia's wool king, with 1,000,000 sheep. But of late years he has reduced his flocks considerably. The distinction now belongs to Squatter Jowett, whose properties are mostly in Queensland. The sheep on them will reach the million next lambing, bar drouths. Sidney Vudman, who controls 25,000,000 acres of leasehold land in North and Central Australia, is the cattle king, and is probably the wealthiest squatter in the Southern Hemisphere. The biggest wheat farmer in Australia is Green, of landra, N.S.W., who farms 20,000 acres. He sold his crop of 150,000 bushels this year at 4s. per bushel. He is now building a mansion on his property, which is to cost nearly £100,000. J. S. DUNNET, Australia.

#### Another Complaint Re Sheep Judging.

Editor "The Farmer's Advocate":

In "The Farmer's Advocate" of February 3rd is an article from the pen of Mr. Campbell, re judging sheep. I was very pleased to see this matter taken up by one who is able to see and know whether the awards are given fairly, or whether the judge is competent to act as such. I am sure the many years of breeding and showing of sheep at the leading exhibitions, and also the experience that Mr. Campbell has had in judging sheep, and the satisfactory way that he has placed the ribbons when acting as judge, should add weight to the remarks made by him regarding the unsatisfactory way in which the prizes were given at the International Show. The directors should be more careful when choosing judges in the future. From my own experience, I find that a judge who is called upon to act in so many different breeds of animals, rarely ever gives satisfaction to the exhibitors. College professors are all right working out theories—it is their profession—and the knowledge that we gain from their work is valuable. We should be sorry to dispense with them; they are the men who are helping to improve Canada as an agricultural country. But, when placed beside breeders who have given their life to studying their individual breeds, and the knowledge gained by their studies and breeding of animals, and whose reputation is at stake should they make any error in this comparison, the professors' work, when placing ribbons, is open to comment. I, myself, have suffered by the inability of a sheep judge. We ask no favors; we desire fairness for our work of fitting our stock, and hope to get our due rewards this coming season.

Peel Co., Ont. OLD COUNTRY JOE.

It is a mistake to think, because a Shorthorn cow gives a twelve-quart pail of milk at a mess, that she won't throw a calf that will make a first-class steer.—[Edward Jeffs.

#### Lump Jaw.

When lump jaw affects the bone, and the patient has been given the iodide of potassium treatment until iodism has been well established, how is a cure to be recognized? Should the lumps disappear, or is an operation necessary? If the lump does not disappear, would it be wise to repeat treatment? What intervals should elapse between treatments, and how often can treatment be repeated with safety?

J. R.

Lump jaw is due to a micro-organism which becomes localized and forms a tumor. The tumors are usually localized in the region of the head and throat, but may be located in other parts. In many cases the bone becomes diseased. In the first stages there is simply an increase of volume of bone, but in the later stages the bone becomes porous or honeycombed, with the interstices filled with a product of the disease. Iodide of potassium destroys the virus or fungus which causes the disease, but it is necessary to give the drug in repeated and gradually-increased doses, until that condition known as iodism, or poisoning by iodide, is produced, in order to be reasonably certain that all the virus is destroyed. The symptoms of iodism are loss of appetite and thirst, a discharge of fluids from mouth and eyes, and a scurfiness of the skin. If the administration of the drug be continued after these symptoms become well marked, the patient will die of emaciation. In full-grown animals, we usually commence to treat with one-dram doses, and increase the dose by ½ dram daily until some of the symptoms of iodism become well marked, when the administration of the drug should be ceased. The drug, as well as having the action of destroying the fungus, also promotes absorption, and tends to cause a lessening, and sometimes a total disappearance of the growth or tumor. This usually takes place if treatment has been given during the early stages of the disease; but if the bone has become greatly enlarged, and especially if honeycombed, the tumor will not disappear, but may become somewhat lessened. As to recognizing when a cure has been effected, I may say that in many cases this is difficult for some time. In such cases, where the tumor has not disappeared, there will be no further growth, the animal not suffering, but the enlargement remaining about the same size, or becoming slightly less. When the bone is diseased, an operation is not advisable, but in cases where the bone is not diseased, the quickest and surest method of treatment is dissection. When the fungus has been destroyed, there can be no further progress of the disease, and, even though the enlargement be still present, a cure has been effected. It is often advisable to repeat treatment, and this can be done in about two months after the former treatment has ceased. As regards the number of times treatment can safely be given, there is no limit, so long as it is not continued after iodism is produced, nor given at less intervals than stated. Of course, each treatment tends to emaciate the patient, hence repeated treatments would prevent general thrift.

"WHIP."

#### Our Scottish Letter.

The week closing has been an eventful one among horse-breeders. We have had the annual stallion show at Glasgow, the annual meetings of the Clydesdale Horse Society, and a great legal trial regarding the ownership of Baron o' Buchlyvie 11263, the most outstanding of the second generation of living Clyde stallions. We also are having a shipment of some 30 or 40 Clydesdales to Canada, entering the Dominion at St. John, N. B. The buyers are spread all over the Dominion, from Ontario to Edmonton, and so far, those for the same period of 1909. Regarding the Society, little need be said. It is one of the most prosperous agricultural institutions in Scotland. It has now a capital of over £5,000 (nearly \$25,000), and its council are investing this month £1,000 in Canadian bonds. The President said, at the meeting, that this was an acknowledgment, in a small way, of the indebtedness of the home breeders to Canada for the hearty support you give to the Clydesdale breed. The gold medals offered by the society appear to be greatly appreciated by your breeders, and the home breeders are very glad to acknowledge in this way what Canadians are doing for us. Disappointment was expressed, at the meeting, at the decision of the executive of the Canadian Association with respect to the horses, Sir Henry 13200, and Braiddie Prince 12871, and the hope was expressed that the Canadian Association will recognize the expediency of rescinding a resolution which confers no benefit on anyone in Canada, and inflicts a great injury on the owner of Sir Henry 13200 in this country. Here we cannot believe it possible that all the members of the executive committee of the Canadian Association are aware of what has been done. The light bay horse is in Canada, and he is Braiddie Prince, and not Sir Henry.

The show this week was worth going far to see. Quite a fair number of good horses were

exhibited, but the eagerness of societies to secure horses for stud purposes long in advance of the show, has robbed it of much of its old excitement. About ninety entire Clydesdales were hired for service in 1910, some of them a year ago and more, and already four are under hire for 1911. These four are Messrs. Montgomery's Scottish Crest and Pride of Blacon, both sons of Baron's Pride; Mr. Kilpatrick's big horse, Dunedin, and Mr. Taylor's big horse, Sir Dighton. The fact that these four horses were characterized by unusual weight and substance, and that they have been hired by societies which have hitherto been content to take second place, is significant of a determination among breeders to get up the weight and substance of their Clydesdales. The champion of the show was William Dunlop's two-year-old colt, Dunure Footprint 15203, a big colt, which last year pretty well held his own against all comers, and, judging by his present form, is likely to do the same in the season which has now opened. He was bred by his owner, and was got by Baron o' Buchlyvie 11263, out of a noted prize mare named Dunure Ideal 21283, which, as a three-year-old, produced this fine colt. He is wonderfully well planted at the ground, and makes a noted champion for quality, size and action at his years. The reserve was John Pollock's four-year-old, Montrave Viceroy 14278, a horse with a notable pedigree, both his sire and his dam having been winners of the Cawdor Cup. He is bred in the most fashionable lines of the present day. His sire was Hiawatha 10067, and his dam Lady Victoria 14582 being a daughter of the celebrated Baron's Pride 9122. Montrave Viceroy won the 100-gs. Brydon Challenge Shield, which is restricted to horses three years old and upwards, and the reserve for it was Alexander Rennie's big four-year-old black horse, Laird of Erskine 15276, which last year had the Glasgow premium. Both of these trophies, the Cawdor Cup and the Brydon Shield, have a condition attached to them that only horses which have passed a veterinary examination for soundness can compete for them. Unfortunately, several of the best horses which presented themselves for this test failed to get through, most of them because of a slight roughness in the windpipe. It is almost impossible to keep any big, heavy horse quite right in his wind if he is fed for several years for show purposes. Some consider the veterinary test under this head too severe, and certainly the galloping of big cart horses to try their wind is not quite a rational proceeding. Two grand big horses in the show were Mr. Kilpatrick's Perfect Motion 13123, a six-year-old son of Baron o' Buchlyvie, and winner of the Brydon Challenge Shield last year. He was placed first in the open class for matured horses, Mr. Taylor's big horse, Sir Dighton 13760, a five-year-old by Sir Hugo, standing second, and Montrave Viceroy third. The three-year-old class was led by John Leckie's Royal Salute 14825, a son of Hiawatha, and a very bonnie horse at that. Unfortunately, he was moving rather wide behind, and Clydesdale judges are unwilling to forgive that. Mr. Kilpatrick had second with Scott Logan 14840, a Cumberland-bred horse of Lord Aghin lineage, and a horse combining great strength and substance, breadth of bone with quality. He moves well, and there are not many better three-year-olds. The third was Mr. Taylor's Sir Winston 14867, another son of Hiawatha, and a true, solid, thick Clydesdale horse, full of breed character, and in some respects the best horse in the class. His dam, Legacy 15805, is a daughter of the famous Sir Everard, and own sister to the celebrated champion mare, Lady Margaret. The two-year-old class was, of course, led by Dunure Footprint. Next to him stood the thick, well-ribbed horse, Cadzow Fashion 15166, owned by Hastie & Sons, Fiddlewood, Hamilton. The third and fourth were sons of the young champion, Oyama 13118. There was a good show of yearling colts and two-year-old and yearling fillies. The leader among the colts was Dunure Amos, a bay son of Hiawatha, owned by Mr. Dunlop. John Sleigh, Fyvie, did a big feat in the filly classes, winning first for both yearlings and two-year-olds with the full sisters, Elaine and Moira. They are daughters of Baron's Pride 9122, and Moira was unbeaten and the Cawdor Cup champion last year. Mr. Sleigh was second for yearling colts with a son of Everlasting 11331. He looks a safe one for another day.

I should have mentioned that this is the Jubilee of the Glasgow Stallion Show. Much water has flowed beneath the bridges since the first show of Clydesdale stallions was held in Glasgow, and while I am not prepared to dispute that this is the fiftieth show organized by the Glasgow Agricultural Society, I am certain it is much more than half a century since the first show of the kind was attempted in the West of Scotland. These competitions did very much to foster the love for horse-breeding which is innate in Scotchmen, and I doubt not that as Canada fills up such events will be popular among your farmers, also.

#### WHO OWNS THE HORSE?

As for the lawsuit about Baron o' Buchlyvie, it has been an exciting business. The horse was bred ten years ago by Wm. McKiech, Woodend.

Buchlyvie, from whom he was bought as a two-year-old colt, in joint venture, by James Kilpatrick and William Dunlop for £700. It was publicly reported that, after two years, he became the sole property of Mr. Dunlop, and was removed to his stables at Dunure Mains, Ayr, from Mr. Kilpatrick's stables. Mr. Dunlop maintains that he bought out Mr. Kilpatrick's interest in the horse for £1,000, so that he was then valued at £2,000. Mr. Kilpatrick says that when they came to square up things, it was found that they had misunderstood each other, his idea being that the £2,000 represented his share in the horse, so that his value was £4,000; that, by agreement, on account of this misunderstanding, the sale was annulled, and the joint-venture stood. Mr. Dunlop says it was not so, and that he paid for the horse in two instalments of £250 and £750 each. Mr. Kilpatrick admits the receipt of the £250, but denies that it was part payment of the horse. It was, he says, his share of the profits for one year, and he denies altogether the payment of the balance of £750. The evidence disclosed a very loose method of doing business involving large sums of money, and other features which one could fain have wished were absent. The judge's decision will be awaited with interest, but whatever way it goes, the public have got an eye-opener as to the value of a high-class Clydesdale stallion.

The general election is over, and once more we breathe freely. Parties are very evenly balanced, and it is to be regretted that only about one-tenth of the members returned can be regarded as knowing the A. B. C. of agriculture. In Great Britain, only two bona-fide tenant-farmers have been returned: George Lambert, for the South Molton district of Devon, and Harry Hope, for Rute. Party government, so far as agriculture in this country is concerned, is a curse.

"SCOTLAND YET."

## THE FARM.

### Cement-block Walls.

We very often hear that the argument in favor of solid cement (slop) walls is that it is so much cheaper than blocks, so I herewith give you a few figures to show the cost of my wall (hollow blocks). The total area, including walls, doors and windows, is 1,860 feet above the foundation. This would have cost 10c. per foot for solid cement (\$186.00). Taking 472 feet off for doors and windows, leaves 1,388 feet, which cost 13½c. per foot, which equals \$187.38, not including the cost of lime, which was but a trifle. Now, unless parties building slop walls can get a better rate quoted to them than the above, there is, I think, no argument for them against good hollow blocks, which make a drier and warmer wall than any solid wall, even a thick one. It is also comparatively easy to arrange ventilation with hollow blocks. This is very important. Another argument in favor of blocks is that the builders come and are gone in a few days, while with solid walls it is a comparatively slow job, especially if some wet weather should happen along. This alone is very important, especially to the women folk at such a busy time. In conclusion, I might say I have no interests either one way or the other, excepting that I am so well pleased with my wall that I want intending builders to know about the merits of hollow blocks.

Middlesex Co., Ont.

R. H. HARDING.

### Plank-frame Plan.

Please give plans of barn, 36x60 ft., 14-ft. driveway; one bay the wall is 4 ft. high, the other 8 ft. high, all around. I want to put 12 ft. on the 8-ft. wall, and 16 ft. on the 4-ft. wall, which will make 20 ft. from ground to plate, with a pitch roof. Please give drawing of plan made of plank-frame, also the number of pieces and length required.

SUBSCRIBER.

In answer to the enquiry for plans of a plank-frame, I enclose the following:

End and side elevations of a "Canadian Plank-frame." By referring to the elevations the following description will greatly simplify the construction of the frame:

No. 1 are posts made of two planks 2x8 inches, with a 2-inch space between them. No. 2 are the purlin posts, made the same as the main posts, and having a tongue tension bolted between them at the lower end, which extends down between the plank of the main beams, 5B. No. 3 are sills, made of a 2x8 plank laid flat on the wall, then a 1x8 nailed on top to break joints, and finally a 2x6 spiked to the outside, edge up, thus forming a 3-inch ledge, behind which the posts sit. This also furnishes a nailing place for the bottoms of the siding. No. 4 is the main plate, made of an 8-inch plank, spiked to the top of the posts, and another 8-inch plank spiked to the outsides of the posts, and also into the edge of the first plate plank, and then over this right on top and extending right out even with the outside face of the plank on the outside of the posts

is a 10-inch plank; this covers and breaks joints of the other two.

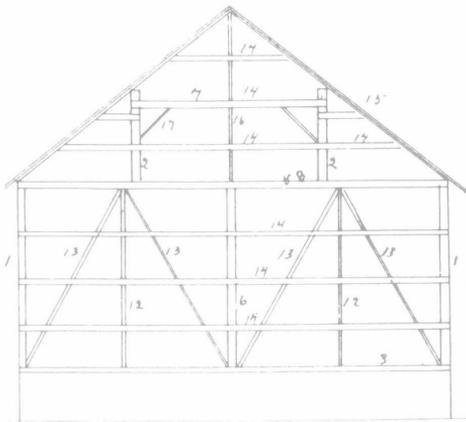
No. 5 are purlin plates, made the same as the main plates, except often the 10-inch plank is omitted. It will be seen that these plates resemble angle iron. No. 6 are center posts, made of a 2x6, next a 2x8, then last, and on the inside, a 3x6, set edgewise, to resist the inside pressure. No. 7 are tie beams, of two 2x8 planks, with tenons entering the purlin posts. No. 8 are tie braces, 2x8, on the interior bents, to give

The gable end is stiffened by a diagonal brace, made of 2x8 plank, across the corners from top of side plate to top of end beam, and between these, across the center, a 2x10 piece is spiked flat on top of the beam. This acts as a stiffener, and by this method the strongest possible end is made. All the beams can be strengthened by this method if desired, but we generally use it on the ends only. No. 17 are braces, 2x6, spiked to the plate and side of the posts.

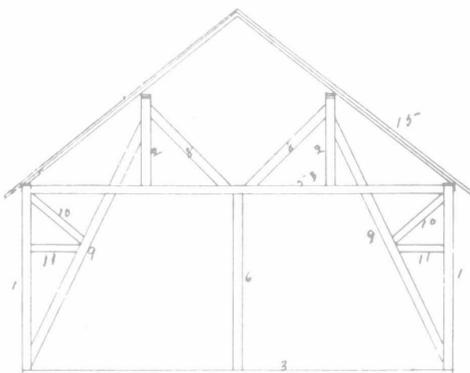
A frame built like the above cannot be effected by storm or inside pressure, and can be built at about 50% the cost of a timber frame.

### BILL OF MATERIAL.

15	pcs. No. 1=2x8x16.
15	" 1=2x8x12.
24	" 2=2x8x8.
4	" 3=2x8x18 (end sills).
4	" 3=1x8x18 (end sills).
4	" 3=2x6x18 (end sills).
4	" 3=2x8x24 (or 8 pcs. 2x8x12).
4	" 3=1x8x24 (or 8 pcs. 1x8x12).
4	" 3=2x6x24 (or 8 pcs. 2x6x12).
16	" 4=2x8x12.
4	" 4=2x10x24.
16	" 5=2x8x12.
4	" 5=2x10x24.
4	" 4=2x8x15 )
4	" 5=2x8x15 ) (Barn
2	" 4=2x10x15 ) floor).
2	" 5=2x10x15 )
1	" 6=2x6x16 (The 2x8 in No. 6 was
1	" 6=2x6x12 included in bill of No.
1	" 6=3x6x16 1 material).
1	" 6=3x6x12
4	" 7=2x8x16.
8	" 8=2x8x9.
8	" 9=2x8x23.
8	" 10=2x6x8.
8	" 11=2x6x6.
6	" 12=2x6x16 (In 16-ft. mow and end).
2	" 12=2x6x8 (Over floors).
6	" 12=2x6x12 (In 12-ft. mow and end).
12	" 13=2x6x17 (In 16-ft. mow and end).
4	" 13=2x6x10 (Over floors).
12	" 13=2x6x13 (In 12-ft. mow and end).
16	" 14=2x6x18 (In ends & lower gable girth)
4	" 14=2x6x12 (In gable, upper short girths)
4	" 14=2x6x15 (In barn-floor bents).
20	" 14=2x6x12 (Mow bents).
40	" 15=2x6x25 (Rafters).
24	" 5B=2x8x18 (Beams).
6	" 5B=2x10x12 (Beam stiffeners).
8	" 5B=2x8x12 (Ties for end & floor beams).
2	" 16=2x8x14 (Gable end stiffeners).
24	" 17=2x6x5 (Braces).



Plank Frame-End Bent.



Plank Frame-Interior Bent.

room for the hay forks and slings working. No. 9 are the main side braces, 2x8 inches, and extend up between the planks of the main beam and enter the back of the purlin post. No. 10 are struts, or braces, 2x6, bolted to the sides of the main braces, and between the planks of the main posts. No. 11 are ties, put in the same as the struts. No. 12 are 2x6, set edgewise, to resist pressure, and extend from sill to plate, being securely spiked to each. No. 13 are braces, 2x6, set edgewise, and starting from the bottom of the side post, extend right up to the plate, where No. 12 meets it. No. 14 are girths, or nailers, 2x6, spiked to the outside of the posts, the uprights (No. 12) and the side braces (No. 13). No. 15 are rafters, 2x6 inches, set on 3-ft. centers, and spiked to both plates. No. 16 are the gable stiffeners at each end, and are made of a 2x8 plank.

The bents are spiked and bolted together on the ground, and then raised into place, the position of the various girths being marked on the posts.

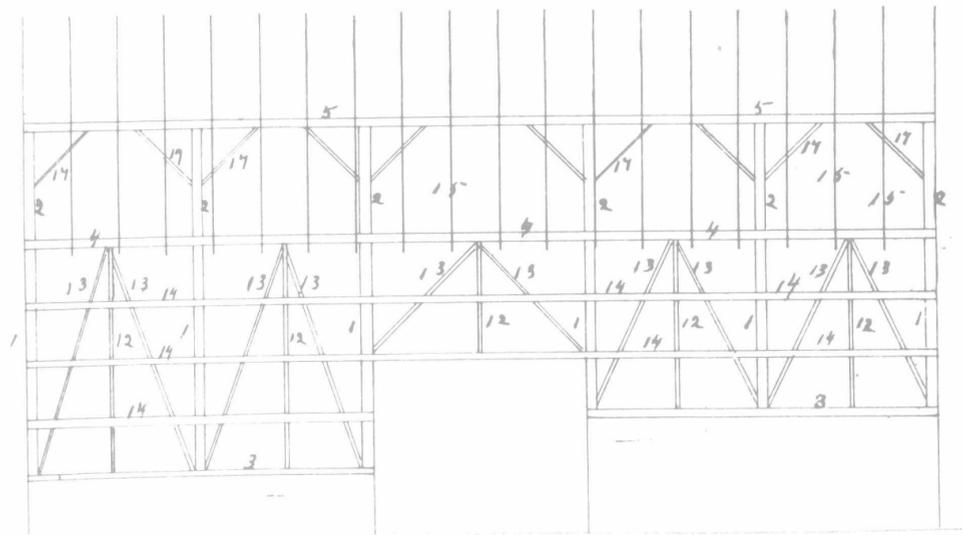
Huntingdon Co., Que.

ALF. A. GILMORE.

I might just say, in connection with my renewal, how much we appreciate your paper. We have taken it now for a good many years, and have always found it helpful and interesting. I am persuaded that no up-to-date farmer can afford to do without "The Farmer's Advocate." Then there is the Literary Department, and Hope's "Quiet Hour," which are doing so much to develop those finer instincts in our lives, and especially in the "Quiet Hour" we get so many bright "Visions of His Face."

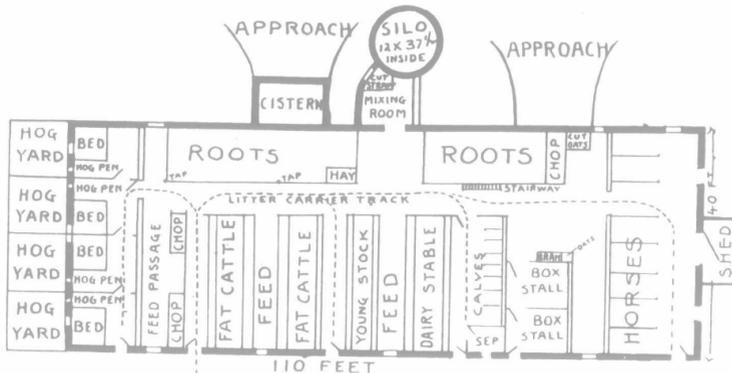
Huron Co., Ont.

COLIN CAMPBELL.

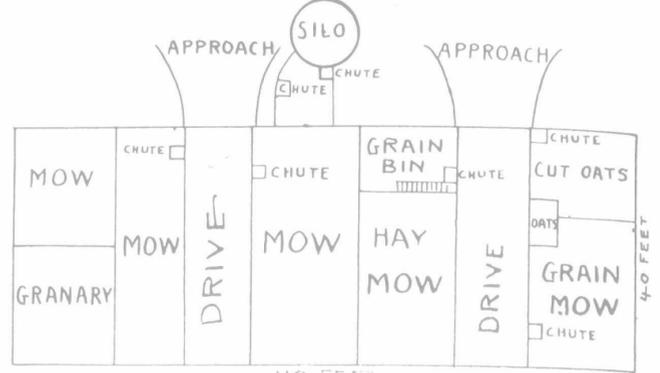


Plank Frame-Side Elevation.

## Plans of Some New and Remodelled Barns.



Ground Floor of R. N. Banting's Barn.



Barn of R. N. Banting. First Floor.

We publish below cuts and descriptions of barns which won prizes in our competition, as well as several others of merit which show the different styles that find favor with practical farmers in various sections of our country.

### Old Barns Remodelled.

AWARDED FIRST PRIZE.

I enclose plan of barn erected 1908 and 1909 on farm of 150 acres, where mixed farming is followed.

The building consists of two old barns, 40 x 50 feet, and 40 x 60 feet, respectively, placed end to end on a 20-inch stone wall.

Windows are part muslin and part glass, and there are as many as could be got in nicely. There are no partitions high enough to exclude the light.

Fresh air inlets are numerous, and are opened or closed as the weather dictates, as, also, are the feed chutes. We do not allow the air to become foul or stuffy in the stable.

We believe that exercise is essential to health in man or beast; therefore, all our cattle, whether fat or dairy, are turned out for a while every day, and are watered while out. Hogs run out at pleasure. Horses are turned out twice a day to water. We only use cistern water for hogs or horses that cannot be conveniently turned out.

The separator room in dairy stable is very handy, saving many steps.

Our stable will accommodate 42 head of cattle, and is fitted throughout with stanchions, except the section for young calves. The whole row is tied or untied with a single lever. They are very handy, and we like them well so far.

There are no stalls whatever, and no divisions in mangers, which are swept every day, as is also the whole stable.

The floor is of cement throughout the whole stable. The feed passages are raised so as to form part of manger.

The feed is conveyed from mixing-room to cattle in a box made for the purpose, carrying enough feed for sixteen head at one time. This box has a wheel at center of each side, and a swivel caster at center near each end, set a little higher than side wheels, so that both casters cannot rest on floor at the same time. This box can be turned in its own length.

The silo is of cement, and cost about \$200, but we would not be without it for twice that amount. We are going to try five acres of alfalfa this year.

The dotted line in plan shows litter-carrier track. All the manure from horses, hogs, and cattle is taken out at the same door, 30 feet from the barn, to a 25-ft. swing pole, where it is dumped into the same pile, thus mixing it thoroughly. It is hauled to the field in winter.

Simcoe Co., Ont.

R. N. BANTING.

### Loose Feeding Yard Included.

SECOND-PRIZE PLAN.

Allow us to present the plan of our new and reconstructed barn of 1909 to your paper. Having two common barns, one 32 x 50 feet, and the other 35 x 50 feet, with 18 ft. posts, we concluded to make them into one barn, with basement. First we made a cement foundation, 50 feet wide, and 82 feet long, and 3 feet high. 1 foot being under ground and 2 feet above ground, and then put an 8-foot timber frame on top of that, and sided it with two thicknesses of inch lumber, and covered with galvanized siding, which makes a dry wall. Put in large windows, 2 x 2 1/2 feet, and 14 in number.

The horse stables, cow stables, alley floors and mangers are made of cement, alley floors being raised up two feet to save labor in feeding. Cow stable is fitted with the swinging stanchions and water bowls. We have a litter carrier, and we dump the horse and cow manure out where the fattening cattle run, so there is no barnyard waste

there. It enables us to haul to the fields in winter without being troubled with frozen manure. As there are large doors (10 feet wide), we can drive through with three horses on the manure spreader. There are two partitions, which separate the horses from the cows, and both from the fattening cattle. The water is in every compartment.

Now for the barn proper: Taking down the old barns, we raised them one on each end of the basement frame, thus leaving 15 feet between for a drive floor. The barn has six mows, two for grain, two for hay, and two for straw. We use straw mows, which are planked over, for a drive-way when unloading hay and grain, which is very handy, as there is no crowding the team past the load to get out of doors. After threshing is over, we use mows 1 and 2 for clover and corn fodder. The oat granary is right above horse stable. There are four large ventilator pipes running from basement up through the roof to carry off foul air.

Our silo and root house are of cement. The silo, which is 14 x 33 feet, is made of cement blocks. There is a door in the roof of root cellar, which enables us to use the manure spreader for hauling in and unloading roots. The barn has two sets of purlines to support the roof, which is shingled with galvanized-steel shingles. It is sided with Southern pine, and painted. Cost of barn complete, not counting our own work or board of men, is between \$1,400 and \$1,500. This barn is for a 200-acre farm, where mixed farming is carried on. We think the plan would suit a 100-acre farm just as well, only it would need to be on a smaller scale.

Lambton Co., Ont.

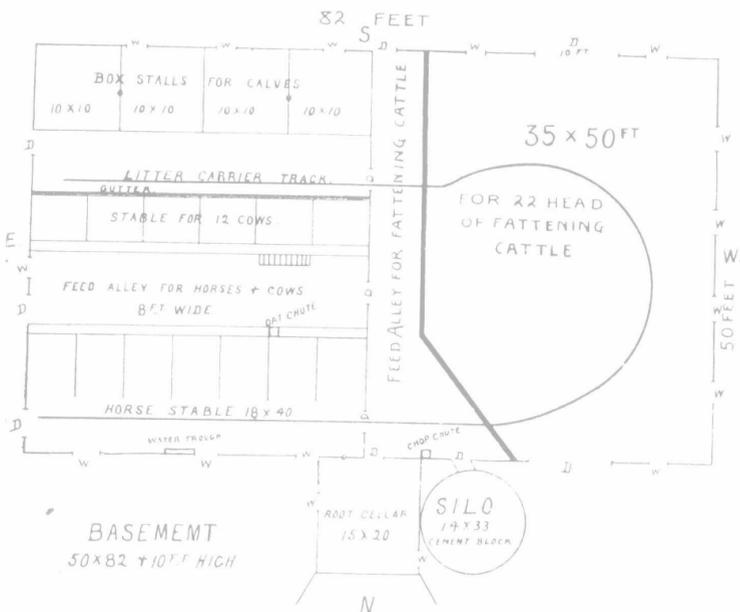
DAVIS BROS.

### Convenient, Durable and Cheap.

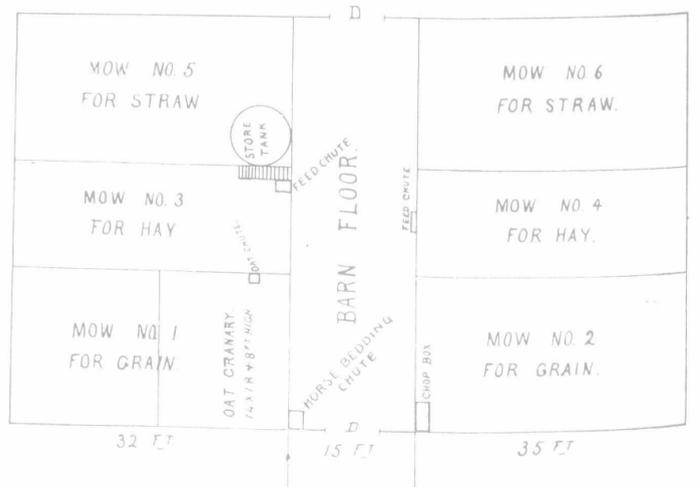
HIGHLY COMMENDED.

Last May a streak of lightning cleaned us out of everything in the way of stock-shelter, and I had to start at the beginning to get something ready for winter. I had never paid much heed to the many barn plans you have published, more than to note how terribly expensive some of them were, both in the building and operating.

Anyhow, the mistress of the establishment and I pulled out a stack of "Farmer's Advocates" between two and four feet high, and went to work to get up our A B C's. We got no whole-cloth there to quite suit us, and I sent for the plank-frame book you advertise, but neither did



Barn of Davis Bros. Ground-floor Plan.



Barn of Davis Bros. First Floor.

MARCH 3, 1910

it fill the bill, so we were compelled to patch up one from both sources, with anything we had learned thrown in for variety.

There are no frills on our work. It is only the result of our conclusion as to what was most suitable to a common dairy farm. These features we had to keep in mind, viz.: cleanliness, convenience, durability and cheapness, in the order mentioned. The last should have perhaps come first, but we found that the other three might not be seriously overrun the cost we had prepared for. But at best they make a team hard to drive together, and to unite them all in a barn has kept this household busy for one season. Right here let me acknowledge my indebtedness to "The

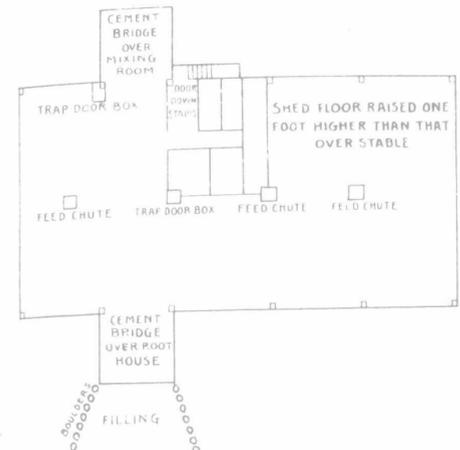
men seemed correspondingly low? But perhaps more than that is needed to make for cheapness; so I asked for prices, and then asked for more. I went to see stuff wherever I had any hopes of finding any. In the end, I bought from a dealer in old metal, piping for the partitions between the cows, as also for some gates, besides I beams to reinforce the cement bridges, and some rod iron, just as good for my purpose as new, and at ridiculously low prices as compared with that of the new.

Besides, I thought it would be profitable to look ahead a little, and in the plan make every post or other piece of lumber, if not every bolt

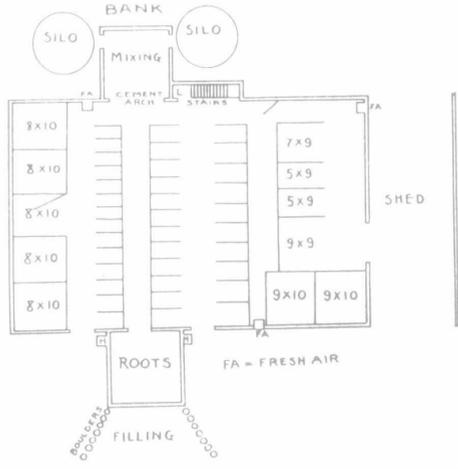
All that was needed to raise our bents was, besides the team and tackle, and teamster, a man at each foot, and one at the brake. Of these three, only the brakeman was in any way exposed, so there wasn't much uneasiness on that score. Once the team was started, the bent went up to its place in a few minutes, and, by spreading the lifting chains twenty feet, the strain was about as evenly distributed as possible. If anything hung fire, too—and we did not escape everything in that line—there was no crowd of men standing around waiting for dinner.

As to the riddance of interior timbers, I think it has gone too far. Anyhow, I had no notion of getting rid of all interior timbers in my new barn. You will note that the truss hanging between my bents serves the purpose of dividing my four mows into eight. Why an architect who is stretching four fork-tracks from end to end of his plan worries about a few posts in the interior, is more than I can understand.

As to the desirability of widening the threshing floor at times, I have allowed for it by hang-



First-floor Plan of Gordon L. Lamb's Barn.



Ground-floor Plan of Gordon L. Lamb's Barn.



Thos. Chisholm's End-drive Barn. Ground Plan.

Farmer's Advocate" and "Plank-frame Barn." It is only the combination that seems to me to be in any way new. And now let me tell you what we did.

We noted the disadvantages of a complete cement wall, as also of a wooden one. I got prices on various kinds of lumber and timber, standing, and hewn and sawn. I got tenders from all the principal metal-roofers, and this is what we decided on.

For cleanliness and warmth, we chose cement for the floor and three feet of the wall.

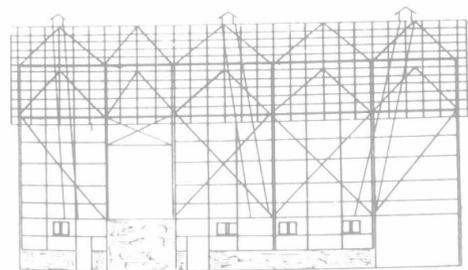
For convenience—after our scurry to get the long rows of cattle out on the morning of the fire—we decided on cross rows. Three chutes from the ceiling of stable to peak of barn, with doors

and nail, serve just as many purposes as possible. My attention has more particularly been called to this by some of the expensive barns I visited, where costly beams and posts have actually got in the way; tremendous arches have laboriously been raised up, all to satisfy the fad of "getting rid of interior timbers," and then the immense space is at best only partly filled by heaps—not mows—of fodder.

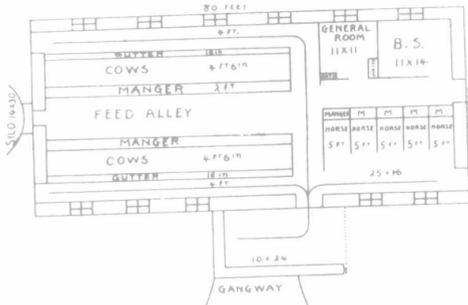
Now, I laid out to make all the studding of the stalls and alleyways carry the barn floor. These being only a few feet apart, required only very light timbers for beams, and there are no

ing up the middle of the bent on one side, with iron rods to the top of the main braces, instead of letting the small middle post go down to the floor, as with the other bents. In order, then, to get all the threshing floor I want, I only have to hold the grain or hay back the required distance for the first six or eight feet, and after that let it come out to the truss again. All this tends not only to greater convenience in operating, but also to lessening the cost of material and building considerably.

Now, as to the plan itself: I have tried to make it so clear that it will not need much description. About material, I used only inch pine for sheathing, all widths—narrow to the sun,



Frame of G. L. Lamb's Barn. Side Elevation.



Ground-floor Plan of Barn of Thos. G. Kendrick.



End-drive Barn. First-floor Plan.

on both sides, serve for letting down fodder, as well as letting up foul air.

For durability, everything in the way of wood must be kept away from the ground, and this is obtained by the cement wall. Of course, at the ends of the threshing floor, because of the approaches, the cement had to rise to the level of the barn floor, but here we made a root house, 12 x 12 inside, by 8 1/2 feet high, on one side of the building, and a similar room for a mixing-room on the other side. These are at either end of the principal feed alley, between two rows of cattle. The roofing we used is No. 26 corrugated galvanized iron.

For cheapness, need I say more than that we both worked under high pressure late and early, and worried a good deal that the pressure on the

big posts standing in the way of cattle or men, neither are there any low beams obstructing the light.

Then, the raising of the frame was a very simple matter. I have never been in favor of beams, where they can be avoided, for they are usually expensive assistance, and especially at such work as the raising of big bents in modern buildings is the risk of life too great to excuse them. Some defend them on their social merit, and I can appreciate this argument, but let them be confined to the husking of corn or something similar. No amount of sociability, or any other consideration, would pay me for the crushing of a life or the breaking of a limb at my raising.

and for the strips under metal 18 inches apart, and the wide on less-exposed sides.

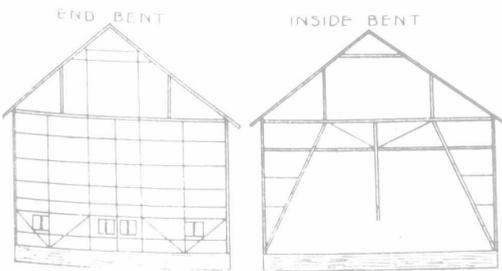
From cement to top of stable I put double boards, with two sheets tar paper between. Floor of barn is double boards, mostly cheap ash, with tar paper between.

Main posts are of two pieces, 2 x 8, with plenty of blocks between. The main brace is also of 2 x 8.

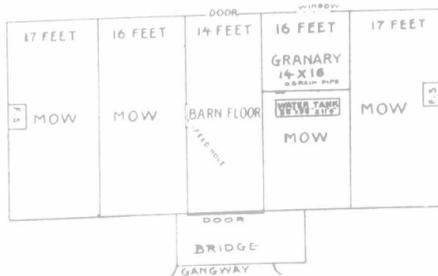
Main plate is of two pieces 2 x 8, one spiked to top of posts and crossbeams, the other to the outside of posts.

Purline plate is of only two pieces, 2 x 6, put on the same as main plate, but well supported by braces.

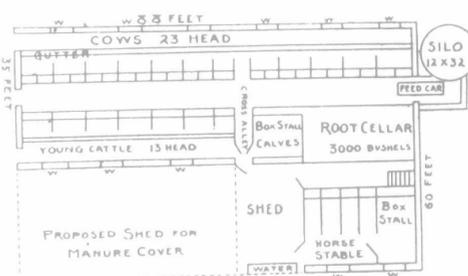
The top of the end bents are two pieces 2 x 8,



G. L. Lamb's Barn Frame.



Plan of First Floor of Barn of Thos. G. Kendrick.



I. W. Swartz's Basement Plan.

spiked, one on top of all the posts, and the other outside, in lieu of a nailer or girt.

In the middle bents, or trusses, the top beam is of three pieces, 2 x 6, two side by side, with blocks between, and the other on top. The lower beam is of only two pieces, 2 x 6.

In bolting in the tenon, I used two bolts in the post, and two in the end of beam. If these are placed judiciously, and aided by a couple of 6-inch spikes, they make a very strong joint.

For purline posts, I used two pieces 2 x 4, side by side, with blocks between, and a 2 x 6 spiked on to the back of them.

For bracing the sides, I made crosses wherever convenient, and used 2 x 4 lumber. These I notched over the nailers or girts, so that, coming flush with the outside, the boards were nailed to them all along. This makes very stiff bracing.

In the lower part, very little bracing is needed, because of the cement bridges, into the top of which are set seven of the small cross-beams. These beams are only 2 x 6, notched into the top of all the stall studding. Only where the stretch is a little longer, as over the box stalls, have I put a piece of 2 x 8 in under them.

Another brace worthy of note, I think, is the roof brace. These not only keep the rafters between the bents from sagging, but make the rafters help to stiffen the plates against the pressure of the mows.

The trusses hanging between the bents are 6 feet deep, like those in the bents, but they are made of only 2 x 4, with an inverted V brace in the middle. Where these meet with the chutes for feed and foul air, they are bolted to a strong frame of 2 x 6 around the chute.

I was very much surprised, when nearing the finish, that, with the nailers on the sides, the strips on the rafters, and the provision for a man-hole on top of the roof, practically no scaffolding was needed.

Prescott Co., Ont. GORDON L. LAMB.

#### A Leeds Co. Dairy Barn.

I am sending you the plan of my barn, which seems to answer the purpose very well, as dairying is our specialty. The barn is intended to meet the requirements of a 150-acre farm. It has a basement wall of stone 9 feet high, with six windows on one side, and five on the other, with stone shed under the gangway, used for storing manure sleigh or truck. The general room has a water tank, and oat box which is supplied by automatic feed from the granary above; also provender bin, grindstone, and separator. The cow stable holds 14 cows on one side, and 10 cows and 6 calves on the other side, the cows being watered in the stable. We have a large water tank up in the mow, which is filled by a windmill. Our silo is 14 x 30 feet, with round roof, covered with felt roofing, which cuts to a round roof without any waste. The barn is built with a 14-foot floor in the center, with back door, 5 x 6 feet, and window over it. The granary is placed at the back of the floor, so as to avoid carrying the grain through the dirt, which usually accumulates around the front of the machine when threshing. I might say that some people object to an all-stone stable on account of dampness, but my experience is that if they are built on the level ground, and have plenty of windows, there will be no trouble with dampness.

Leeds Co., Ont. THOS. G. KENDRICK.

#### End-drive Barn.

As I have never seen the plan of an end-drive barn in your paper yet, I have concluded to send such a plan, that numerous readers might see the style of barn that is very popular in this part of Halton County. There are more end-drives than there are of any other style. It is about thirty years since the first one was built, and they are considered the most convenient for storing the crop, as well as for threshing. In winter the feed is handy to get to the stock. They vary in length from 60 to 120 feet, the majority being about 100 feet long. Many of them have no horse stable in them, but are for cattle alone. The floor of the barnyard stable should be about two feet lower than the cow-stable floor. The rack across yard is very handy for feeding in, and divides the yard in halves, keeping the young cattle separate from the cows.

Halton Co., Ont. THOS. CHISHOLM.

[Note.—While this barn was not eligible for a prize, not being for anything that appears, built in 1908 or 1909, it is well worth publishing, as illustrating a plan popular in the County where the competitor lives.—Ed.]

#### Waterloo Co. Stable.

Enclose you will find plan of my stable, built in 1908, in which there is accommodation for 36 grown cattle and 5 or 6 horses. One of the handy things about this stable is the cross-alley, and the root cellar under the thrashing floor. The roots are all unloaded by rack-lifter, 70 bushels being unloaded in three minutes from the time of

driving into barn, thereby saving a lot of time, as well as hard work. The stable is the lightest in the neighborhood, having 15 large windows. Feeding is done easily by means of the car and convenient hay and straw chutes.

Waterloo Co., Ont. I. W. SWARTZ.

#### Distribution of Forest Seedlings and Nuts for Planting.

Would you give me a list of the trees the Provincial Government gives free for planting? Which does the best to plant in a wood which is thin in places; soil, dry sandy loam?

Which is best for a wind-break?

Is man supposed to keep cattle out of wood-lot?

Ontario.

The Forestry Department at Guelph is sending out the following plants for restocking open parts of wood-lot, or for making forest plantations: Scotch Pine, Jack Pine, White Ash, White Elm, and Black Locust. The Department is also prepared to send out a limited number of nuts of the following kinds: Black Walnut, Butternut, and Shagbark Hickory.

On light, poor soils, in the wood-lot or elsewhere, it is advisable to use Scotch Pine and

able to send out material for ornamental or road-side planting.

Those interested in making plantations or in planting in wood-lot, should obtain Bulletin 155, on Farm Forestry. This may be procured by applying to the Agriculture Department, Parliament Buildings, Toronto, Ont.

Circulars in regard to Government distribution of forest trees may be procured by applying to Forestry Department, O. A. C., Guelph. O. A. C., Guelph. E. J. ZAVITZ.

#### Increasing the Clover Crop.

(O. A. C. Press Bulletin.)

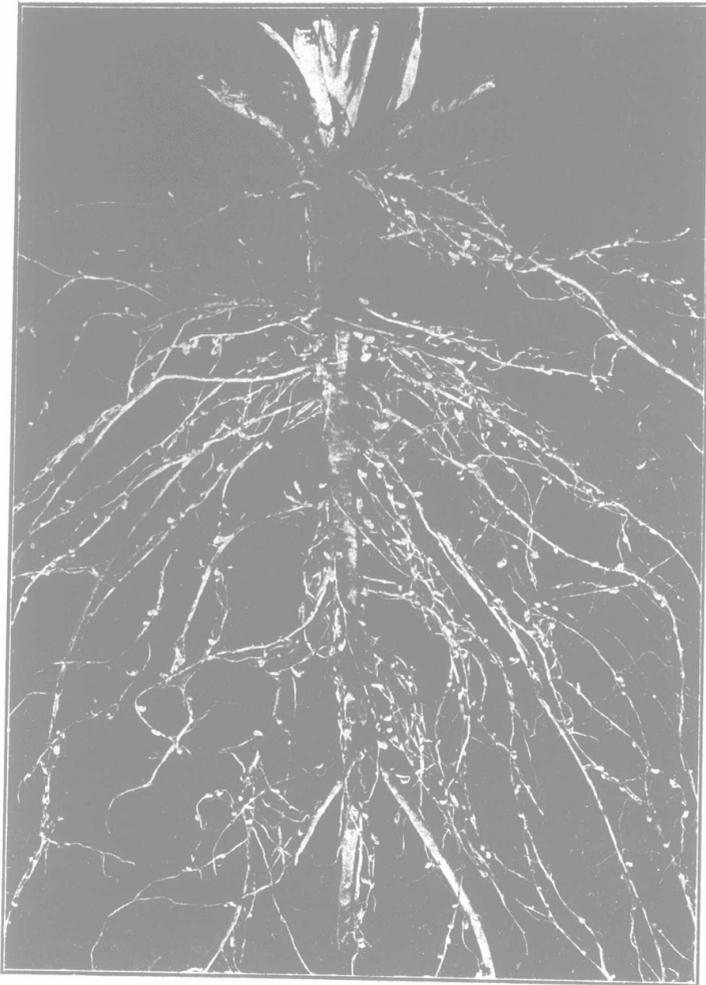
Every farmer knows that if he plows up a clover meadow he increases the fertility of that field. One of the reasons for this is that clover contains a large store of the valuable fertilizing element, nitrogen, and as the clover plants decay in the soil, this nitrogen becomes available for the use of the succeeding crop. The question naturally arises, Why is it that the clovers add more nitrogen to the soil than other crops? The farmer may have noticed, as he turned up the roots of the clover, that there were scattered rootlets, little whitish nodules or bunches. If he had cut one of these little nodules in two with

a sharp knife, he would have seen that the inside was pinkish-white, and if he had a powerful microscope at hand, he would find, on examining this pinkish-white substance, that it was largely a mass of very tiny rods, some straight, and some curved, and some T or Y shaped. These rods are bacteria. These bacteria get into the fine roots when the seed germinates, grow and multiply there as the clover plants grow, and as they grow they draw upon the nitrogen of the air in the soil, and store this nitrogen up in the clover plant. Hence, the clover plant, by the aid of these bacteria, is able to grow, and to store up more nitrogen than it needs, and which it can supply to succeeding crops. Without the bacteria, the clover plant must get all its nitrogen from the soil, instead of getting much of it from the air, and hence, when the clover is plowed under, there is no actual increase in the fertility of the soil.

In fact, clovers make the best growth when there are plenty of bacteria present in the soil, as shown by the presence of plenty of nodules on the plant roots. This is explained more fully in Bulletins Nos. 164 and 169 of the Ontario Department of Agriculture, Toronto, which may be obtained by addressing that Department.

These bacteria can be grown under artificial conditions in bacteriological laboratories, and cultures of them may be applied to the seed when it is sown, thus furnishing plenty of the appropriate bacteria to get into the newly-formed roots and form the necessary nodules. When there is failure to get a good stand of clovers, or when the crop does not thrive, it indicates, usually, that the necessary bacteria are not present in the soil, and in such cases the treatment of the seed in future seedings, as mentioned above, usually aids in securing a better crop. Further, the use of such cultures is frequently advisable when seed of any clover is sown on a field that has not previously grown that crop.

Each year since 1905 the Bacteriological Laboratory of the Ontario Agricultural College, at Guelph, has sent out such cultures to all farmers who applied. Each year, recipients of the cultures have been asked to report as to whether the treatment of the seed had resulted in benefit or not, and of these reports about 65 per cent. stated that the cultures had aided in securing a better stand and increased growth of the crop. The College is preparing to send out cultures of



Typical Clover Root.

Note the nodules or tiny sacs containing the desirable bacteria.

Black Locust. Black Locust should prove a valuable addition to the wood-lot, and will thrive on any well-drained soil. It is a rapid grower, and produces very durable fence posts, as well as being first-class fuel wood.

White Ash and White Elm should only be planted in good soil, and where they will receive care and protection.

Nuts of Black Walnut, Butternut and Shagbark Hickory should be planted only in well-drained loamy soil, and our distribution is intended for planting in wood-lot or plantations.

The chief tree which has been sent out by the Forestry Department is White Pine. We regret that this season it will be impossible to send out this tree, owing to a disease which has threatened our nursery stock. It is hoped that by next season this trouble will be under control, and that we shall again be able to offer this most valuable tree for planting about border of wood-lots as a wind-break, or for use in making plantations.

The Forestry Department is unable to send out Norway Spruce, which is probably the best hedge or wind-break tree. Neither is the Department

ornamental or road... plantations of... obtain Bulletin 155... be procured by... Department, Parliament... government distribution... by applying to... C., Guelph.

**Clover Crop.**

if he plows up... the fertility of the... is that clover... valuable fertilizing... clover plants decay... becomes available for... The question... the clovers add... other crops? The... he turned up the... were scattered... ally on the fine... es or bunches. If... nodules in two with... sharp knife, he would... seen that the... was pinkish-white... if he had a power... microscope at hand... would find, on ex... ining this pinkish... substance, that... was largely a mass... very tiny rods, some... light, some curved... d some T or Y... ped. These rods... e bacteria. These... eria get into the... roots when the seed... minates, grow and... tiply there as the... er plants grow, and... they grow they draw... n the nitrogen of... air in the soil, and... e this nitrogen up... the clover plant... ce, the clover plant... the aid of these bac... t, is able to grow... o store up more... ogen than it needs... which it can sup... to succeeding crops... out the bacteria... clover plant must... all its nitrogen... a the soil, instead... etting much of it... the air, and hence... a the clover is plow... nder, there is no... al increase in the... ity of the soil... ct, clovers make... best growth when... e are plenty of... ria present in the... as shown by the... ence of plenty of... les on the plant... This is ex... ed more fully in... tins Nos. 164 and... of the Ontario De... ment of Agricul... Toronto, which... be obtained by ad... ing that Depart...

these nitrogen-gathering bacteria during the coming spring by the inoculation of the following seeds: Alfalfa, red or mammoth clover, alsike clover, white clover, crimson clover, vetches, peas, beans, sweet peas. Each kind of seed requires a different culture. The cultures are sent by mail, with full instructions for their use. There is only one-size package prepared, that being sufficient to inoculate sixty pounds of seed. There is a nominal charge of 25 cents for each package of culture to cover cost of preparation and postage. Farmers intending to secure these bacterial cultures would do well to send in their application early, so that they may be sure of getting the culture in ample time for seeding. Applications should state the kind and amount of seed to be treated, and should be addressed with enclosed postal note, stamps or money order, to

PROF. S. F. EDWARDS,  
Ontario Agricultural College, Guelph, Canada.

**Inexpensive Syrup-making Outfit.**

Editor "The Farmer's Advocate":  
The cut of the cement arch for boiling sap, sent you by Peter Hughes, Oxford Co., some time ago, is very much like ours. I had some notion about ten years ago to buy an evaporator, but thought then, as now, that they were rather expensive. Some three or four bought at that time, and I lost some of my customers for one year, but they all came back again. Their opinion was that the syrup was a very clear, clean and sweet syrup, but lacking in flavor. A man that was making syrup in the bush adjoining ours took a can of syrup to the Ingersoll market. While there an old woman came along and asked, "Is that evaporated syrup?" Thinking there was a chance for a sale he replied, "Yes, Ma'm." She said, "I don't want it at all." Of course he told the truth, for it is all evaporated.

I want to describe our method of heating the sap before it goes into the back pan. We had a galvanized tank making, 24 inches square by 20 inches deep. The bottom of that is placed some eight inches higher than the top of the pan. About 1/2 inch above the bottom of the tank we had a half-inch faucet put; joined to that by means of a union is a half-inch pipe, which runs down to a level with a depression we left on top of the arch for that purpose; then the pipe turns with an elbow, and runs through the arch close up to the pan, and rests in a notch on the south side; then with a return bend it goes back to the north side; then with an elbow up a little higher than top of pan; then another return bend to turn down into the pan, the sap running into the back pan about six inches from the front end. We can keep that pan boiling all the time. The supply tank is filled by pail (from the store tubs, which are on the north side of sugar-house, entirely outside, with only a good roof over them) through a small door, the bottom of which is just above the tank. You can easily regulate the faucet to run the quantity desired. And if we want to put the pipe in when we have a good fire on, we have it full of sap to prevent any scorching. The cost of our whole outfit was: Grates, 4 ft. long by 3 inches, 10 of them, 530 lbs., at 3c. per lb., \$15.90; door frame, 14x18 inches, with a 3-inch face and door, \$4.60; supply tank, \$1.90; piping, \$2; two pans, 1-3x3 1/2, and 1-3x5 ft., \$8; smoke stack, 11 ft., \$2.50; 2 1/2 bbls. cement, \$3.88; total, \$37.78. We have used the Eureka spile for a good many years, but during that time have tried several other kinds, but always went back to the Eureka. Having heard that the Grimm spout would run more sap than any other spout, I purchased 25 last spring, and used them in the south-west part of our bush, where we had always considered there were the best twenty-five trees for sap in one bunch that we have. I also got galvanized covers made for those. I thought I would have one corner that might be called modern; but, say, we were disappointed, for we did not get two-thirds as much sap from the Grimm spout as we did from the old Eureka. I will scatter them through the bush this spring, and if they do not do any better than last spring, down the old well they go, where there is a whole lot of truck now. Can anyone tell me what was wrong?  
In conclusion, I might tell you a story, just to illustrate how little some people know about good syrup. A man sent a sample of syrup made in a modern evaporator to a city firm—some of his best. They replied, saying it looked nice and tasted sweet, but they thought it was adulterated a little too much; they did not want it. He, being a deacon in the church, would not do any work in the sugar bush on Sunday. Late in the season of that same spring he went to the woods one Monday, and found the most of the buckets running over, but quite a few were looking a little milky. He returned to the house and told his wife there was lots of sap, but it had begun to sour; guessed he would throw it away. She persuaded him to gather and boil it, and send a sample of that to the firm. He did so, and they wired back that was just right; send them fifty gallons.

Oxford Co., Ont.  
A. W. DeLONG.

**Seed Control Act and its Amendments.**

The Seed Control Act became law on September 1st, 1905. It had a rough passage through Parliament, and would have become ineffective if some of the seedsmen of the Dominion had had their way. Now that it has been in operation for four years and over, few if any dealers in seeds would care to go back to former conditions. Some of the leading Toronto seedsmen have spoken very strongly in favor of it.

The chief object of the law was to check the spread of noxious weed life over the country through the sale of commercial seeds. It was discovered, through the efforts of the Seed Division, since known as the Seed Branch, Department of Agriculture, Ottawa, under the direction of Seed Commissioner Clark, that all over Canada there was being offered in the trade some very low-grade seed, foul with noxious weed seeds. It was felt that seed merchants and seed dealers were great sinners in this direction, knowingly or unwittingly, and that farmers, too, were in the habit of selling inferior seed to one another. The farmer who was alive to his opportunities, and wished to keep his farm clean, wanted the opportunity to buy the very best seed that was going, and it was desired that the careless farmer, who was indifferent as to what he bought, should not have the opportunity of sowing too many weed seeds. It was not desired to coerce him to buy a better seed than he wished, but if he were bound to buy low-grade stuff, he would have, to some extent, the information before him. In this matter the law has been quite effective. The demand for the best seed, much of which was formerly shipped out of the country, has constantly increased, until now the dealers cannot supply the demand. Farm-

It is the exemption privilege which the farmer is allowed in Section 5 of the Act about which there has been so much misunderstanding, as well as contention. While the Act was under discussion in Parliament, the seed merchants tried to make the country believe, as they firmly believed themselves, that the farmer could sell any kind of seed he liked to his neighbor for seeding purposes. This is a wrong interpretation to put on Section 5, as it distinctly says that the exemption privilege only applies to "the next following section," viz., Section 6.

To Sections 7 and 8 there are no exemption privileges to anyone, and the farmer must be subject to the law on these points. As further evidence on this point, last year two farmers were cited before magistrates and fined for offering seed contrary to the provisions contained in Section 8. The one was offering it at his barn, the other on a market in one of our cities. They both pleaded guilty, and were fined accordingly. Section 7 of the Act defines what constitutes No. 1 red clover, timothy or alsike, and a new amendment includes alfalfa. The qualifications are three: (1) The seed must be comparatively free from the twenty-three weed seeds mentioned in Sections 6 and 7 of the Act. The amendments have added three more, viz.: Wild radish to Section 6, and bladder campion and alfalfa dodder to Section 7. It might be mentioned that another form of false flax is mentioned. In a No. 1 sample the law has fixed it for a time, at least, by the Governor-in-Council, that one noxious weed seed may be present to every 1,500 seeds of the sample, and still grade No. 1, which is a margin of tolerance for the protection of the seedsmen, and not for the purpose of seeing how close he can grade his seed to contain such weed seeds. A second requirement for No. 1 seed is that 99 seeds out of every 100 should produce useful plants.

This allows for the sale of mixed seeds, but not for the sale of more than 1 per cent. of weed seeds of any kind, not even foxtail or trefoil, which are not considered noxious. The third requirement is that 90 per cent. of the seed will germinate. Usually, new seed will germinate 90 per cent., unless there is quite a percentage of dead, shrunken, discolored-looking seed in the sample.

Section 8 of the Act sets the limit of noxious weed seeds which may be sold in seed for seeding purposes, which is 5 per 1,000. In the amendment to this section, alfalfa is included. At first sight it wouldn't appear that 5 per 1,000 was not very dirty seed. However, it figures out to be 92 per ounce, or 1,450 per pound, in red clover. If one sowed 10 pounds of red clover per acre, he is quite liable to get 14,500 noxious plants to the acre, and this has been styled by the seed merchants and dealers as Government Standard seed. The law, as at present constituted, allows the sale of dirtier seed than should be handled in the trade. Purchasers of seeds should look carefully to see how close the seed has been graded to the 5-per-1,000 mark.

**HOW TO TELL.**

A good-sized thimble should hold about 1,000 seeds of red clover. If a few thimblefuls of the seed were examined, and even three or four noxious seeds found in it per thimbleful, it should be warning enough to the farmer who wants to buy pure seed. The seed may be spread out on a piece of white paper, and examined closely. A magnifying glass will aid the uninitiated eye.

**WHAT SEEDS TO LOOK FOR.**

In red clover, look out for ribgrass or buckhorn, ragweed, wild mustard, catchfly, bladder campion, chicory, foxtail, trefoil and lady's-thumb. In alfalfa, similar seeds to those found in red clover may obtain, and alfalfa dodder; wild carrot, too, is often found, as well. In alsike, watch for catchfly, buckhorn, bladder campion, false flax, lamb's-quarters, and sheep sorrel. While the timothy these days is pretty pure, some lots may contain false flax, ox-eye daisy, ribgrass and pig-weed.

Another section which the amendment will add is one designed to set a standard of germination for seeds, and any falling below a two-thirds germination must carry a label stating the percentage of germination. This will apply to all farm-



Vanilla 2nd.  
Jersey cow. First in Inspection class, London Dairy Show, 1909.

ers have been found willing to pay the price, provided they are assured they can get the right kind of seed. The highest-priced seed, which is usually the best seed, is the cheapest seed a man can buy. The purchaser should, however, be a judge of seeds, and not allow a dealer to sell him lower grades for No. 1 seed.

At present, there are three essential sections of the Act which everyone should understand, and when the amendments to the Act become law there will be a fourth very important section. These three sections are 6, 7 and 8, respectively. Section 6 might be called the labelling section, and applies mostly to the cereals. There are fourteen weed seeds mentioned in it, and a new amendment has added one more, viz., wild radish, making 15 in all. If any of these weed seeds are found in seed grain of any kind offered in the trade in a greater proportion than one per pound, it is necessary for the seller, in protecting himself, as well as giving the required information to the purchaser, to put a label on the goods, "in a plain and indelible manner," conveying (a) the name and address of the seller, (b) the kind of seed offered, (c) the common name or names of the weed seeds present, if they are those the law has black-listed in Section 6. In the case of small seeds, like red clover, timothy, alsike and alfalfa, the proportion is one noxious weed seed to every 1,500 of the sample. The only weed seeds, however, which the dealer has to use a label for in the small seeds, as a rule, are wild mustard and ragweed. It must be understood by the dealer that Section 8 prohibits the presence of any more than 5 to 1,000 even of these, notwithstanding a label might be on the package, as the law requires.

garden and vegetable seeds. Very frequently in the spring may be seen the cases of package seeds standing in the windows and getting the sun's rays day in and day out. This depreciates the germination value. Again, seeds may be allowed to get damp on the floor when it is cleaned, and some of them get wet, which also affects the vitality. It is to be hoped that such methods of handling seeds will cease.

During the four years and better the Seed Branch has been trying to secure the co-operation of all concerned in handling seeds, so that their quality will be improved, there has been good progress made. In the main, we believe every dealer wishes to handle good seed, and to prevent, as far as possible, the spread of noxious weed life. There have been a number of prosecutions where it has been felt that undue carelessness has been shown. With a greater discrimination in prices paid for clean, good seed, and impure, poor seed, growers will be more careful to produce their seed on the cleanest chances, and weed their seed crops in the field. It is satisfactory to know that more of this is being done from year to year. In spite of this, there is much dirty seed still being marketed.

Most farmers now know ribgrass or buckhorn when they see it. This spring, those farmers who are sowing any seed, whether grown by themselves or bought of the dealer, can eliminate nearly every seed of buckhorn from his clover by covering a few screens of any kind with two ply of cheese-cloth; dampen it with water enough that when the clover containing the buckhorn is sprinkled on it will stick. A little drying and the clover seed drops off, while the buckhorn sticks, and must be scraped off. With half a dozen sieves, and frequent repetitions, a bushel or two of seed could be gone through with quite quickly. Ragweed, another hard seed to separate, may be handled quite satisfactorily by using a 1-16-inch mesh in sieve fixed to a frame of some kind, preferably a round one, about 4 inches deep. By shaking the clover seed containing the ragweed in such a way as the ragweed comes to the surface, most of it can be separated, whether hulled or unhulled, as the clover seed will pass through the mesh. It should not be shaken too close, as then some of the ragweed would go through with the clover.

It should be remembered that the Seed Branch, Department of Agriculture, Ottawa, is prepared to test seeds for purity and vitality, free of charge. Not even a stamp is required to send the seed through the mail. An ounce is plenty, so long as it is representative of the bulk lot. Purity reports may be had very expeditiously.

T. G. RAYNOR.

### Closing the Markets to Foul Seed.

Editor "The Farmer's Advocate":

Correspondence received through your office leads me to advise your readers that several of the States to the south have, during the last two years, enacted laws respecting the sale of seeds, which preclude seed merchants in those States from purchasing red clover and alsike seed of the quality that is not allowed to be sold for seeding in Canada. Most of the remaining States in which Canadian clover seeds are marketed have such legislation under consideration at the present time, and within two years there will be no market for Canadian grass and clover seeds harvested from lands that are polluted with noxious weeds. It is because of this legislation in the States to the south—which States have, until this year, been able to use the lower grades of clover seeds grown in Canada—that many Ontario farmers, who have taken alsike seed from fields on which catchfly, bladder campion or false flax are in plenty, or red clover from land polluted with ribgrass, curled dock, ragweed and thistle, find it difficult to sell their seed at any price. If the farmers who have such seed for sale will visit and inspect the larger seed-cleaning warehouses of Toronto or other centers, they will find there the best modern cleaning machinery that is to be had any place in the world; and yet, with this special machinery, the clover seeds which they raise on dirty land cannot be made clean without a heavy loss, not only of the weed seeds, but of a large quantity of the good seed. This waste amounts in some cases to as much as twenty-five per cent. of the total bulk bought of farmers. The process of cleaning is slow, and the expense for labor and machinery is too great to make the cleaning of dirty clover seeds a profitable undertaking to seed merchants. By far the cheapest and most satisfactory way to clean clover seeds is to pull the weeds in the fields before the crop is cut. A clover-seed crop on land that is so foul with weeds as to render the pulling of the weeds by hand impracticable, should not be left for seed. In future years farmers who grow clover seeds on that kind of land will not be able to find a market for it.

With so much of the dirty seed left on their hands, there is a strong temptation among farmers to sell it at a reduced price to other farmers in the locality where they live. Farmers should remember the false economy of using unclean seed,

because once seeding a field with alsike or clover seed that would not grade No. 1 under the Act would render that field unfit for the production of clover seed for several years.

Farmers should clearly understand, too, that if their alsike seed contains more than 212 noxious weed seeds per ounce of the good seed, or red clover more than 92 of them per ounce of the good seed, then the Act forbids them to sell it, except for the purpose of being re-cleaned. It is the privilege of any farmer to send samples of seed to the seed laboratory, Department of Agriculture, Ottawa, where they will be tested as to quality and promptly reported upon, free of charge to them. To secure the more strict observance of the Seed Control Act among farmers this year, an additional number of seed inspectors are being employed. It will be their duty, so far as possible, to look into any statements of complaint or intimations as to violations of the Act that may be received from any persons who may have knowledge or reason to believe that the Act is being violated.

G.F.O. H. CLARK,

Seed Commissioner.

### Making Fancy Sugar.

Editor "The Farmer's Advocate":

I have made maple sugar every season for the last 42 or 43 years. The indications in this locality appear to be that we will have more extensive operations in the maple-sugar industry than ever before, as some new sugarmakers are coming in with late appliances, and old ones are fitting out their places better than ever before with improved appliances, which are furnished by a few firms in the upper Provinces.

I live in one of the best (if not quite the best) sugarmaking localities in New Brunswick. In fact, some of the sugar made here is the best-flavored, brightest, finest in grain, and creamiest in appearance of any I have ever seen. I run two sugar places, tapping 1,000 trees on one place and 800 on the other. Last year we made 120 cans syrup (one gallon, wine measure), and 1,150 pounds of sugar on both places, most of which we sold at 14c. to 16c. per pound. The syrup sold for \$1.15 per can the first of the season, later \$1.10, and some \$1.05, averaging about \$1.11 per can. We supplied about one-half of it to customers, and marketed the rest in St. John. It cost an average of 14c. per pound to market the sugar, and 8c. per can to market the syrup. As I have stated, we operate two places in the production of our maple sweets. I will give you an estimate of what it cost to fit out one of them, on which we hang 1,000 sap buckets. The trees stand on quite a smooth plot of land, of about 15 or 20 acres, with slight slope toward the north-east. They are on a mountain soil, limestone variety. The trees tapped are 10 to 40 inches at the butt, mostly short, with bushy tops. The cost of 1,000 buckets, mostly tin, some tin plate, was \$130.00; evaporators, 3x10 ft., \$100.00; sugar-house, \$100.00; sled gathering tank, puncheons and other utensils, \$45.00; sap spouts, \$25.00. I am not taking value of land into consideration, and there are some other little expenses, amounting to about \$5.00. Each year we get 60 syrup cans, at 11c. each. We get up, saw, split and pile under cover the first of the winter 8 cords of wood, which usually does to make 600 lbs. sugar and 60 cans syrup. One man and myself usually operate the place, besides doing the barn work for 30 head of stock, 12 to 15 of them cows in milk. It usually takes 25 days from the time we commence tapping until we gather the last sap. It usually takes two days to gather up the sap buckets and tidy things up about the camp. This will convey an idea of about what it costs to operate the place, while the other place costs the same in proportion.

I will give a few points as to my methods and ways of making sugar. To the looker-on sugarmaking may appear to be an easy art or unskillful operation, but I can assure any person it requires as much skill to be a first-class sugarmaker as is needed in any other art or trade, and just as close attention to details and thoroughness in business to make it a paying undertaking as any other calling. Every man who makes sugar is not a good sugarmaker. I know some parties who have been in the business for a long time, and they turn out a yellow, sandy, coarse-grained product, scorched in taste, not like good, pure sugar should have. However, I have some neighbors who turn out maple sugar which, when fresh, resembles in appearance whipped cream, being soft and not too soft, neither is it too hard, it just melts when taken in the mouth, having the most delicious flavor. We think that is about what maple sugar should be. Amateurs cannot make it. Now, as to our way of making sugar. I consider tapping a very important feature. Tap at the right time and in the right place. We never think it advisable to tap at the first appearance of sap weather, as there is usually a cold spell follows the first sap spell, which will check the fresh taps and cause it not to run as freely as it should when the right season comes; also, the buckets are liable to be frozen full of sap

—and liable to damage—which cannot be gathered until well thawed. In the meantime the sap may be running to waste, and the ice is a nuisance. As to the right place, almost every tree has a lean; we usually tap a tree on the under side from the lean, sometimes on the side at right angles to the under side, very seldom on the high side, and never in a mossy place. The sap generally flows the most freely from the under side of the tree, tapping about 3½ to 4½ feet from the ground, being careful to avoid dead wood.

We use a 7/16 bit. When the sap commences to run freely and we think the season is at hand, we do not stop to gather, but keep on tapping away for a day or two. If we have a good run, we will then gather and store it. If the run continues, we then tap again, so as to get as much as possible out of the first run. We usually have everything clean and in readiness to commence boiling, as soon as the run subsides or shows signs of doing so, we commence boiling and gathering. Perhaps we may not tap any more for a day or two, or until we get through with the first run. We use a modern evaporator, which we find a very efficient machine. This first run we usually make into syrup, for which we have immediate demand. In boiling to syrup, we strain the sap into the feeding vat, and the evaporator feeds itself automatically. The sap enters the front end of the evaporator, which has four pans, the sap passing from one to the other by siphons until it reaches the rear pan, and keeping on coming until it goes to syrup, or nearly so, when we shut it off and boil to about 13 lbs. 2 ozs. to the gallon, when we draw it off and strain it. When cooled and settled, we place it in cans, which are labelled, bearing our name and address. If we wish to make it into sugar after it has been strained and settled, we place it in the sugar-off pan, when we start a good sharp fire, which we think necessary, as there is less danger of scorching with a good fire than a slow one. When it starts to boil there is always some white froth rises to the surface, which we skim off. In starting to boil it foams considerably, and would run out of the pan, but we drop in a small quantity of clean butter, or whip it with a pronged stick, which stops it foaming, and keeps it from doing so. We now let it boil until we think it is nearly thick enough, when we place a small quantity on snow, and if it breaks up fine when removed it is about the right consistency for sugar or soft candy. We then remove the pan from the fire, and set it where it will cool, sometimes on the snow or on ice, and allow it to cool until it is quite thick in the bottom of the pan. We then place the pan on the floor of the sugar-house, partly on one end, and run the contents together as much as possible, and stir slightly with a ladle for a few minutes, when we cease and allow it to become quite thick, set the pan straight or level, and we then remove a few pounds from the bulk, which we stir thoroughly and place in the molds as quickly as possible (that is the way we make what we call creamy sugar). After it cools well it is wrapped in butter paper, and is ready for market. I omitted to mention when describing our mode of tapping, that we use covers on our sap buckets, as they not only keep out moss, flies, grubs, millers, snow and rain, but also keep the sap cool in warm and sunny days. Sap should be gathered and boiled as soon as possible after coming from the tree, and not so much the dross we take out of it as what we keep out has to do with quality and color. Also during a storm, unless a very cold one, there is nearly always more or less sap runs, which can be saved if the sap cans are covered. However, a wooden cover is of no use, unless placed on in a slanting position; otherwise it will soak along the under side of the cover and drop in the bucket. The cover should project well over the edge of the can, so the water will drop outside. There are many other features that can be written about, and no doubt you will get the opinions of other sugarmakers.

Albert Co., N.B.

BENJ. N. HUBLEY.

## THE DAIRY.

### Leading the Way.

An example of a farmer in London Township, Middlesex Co., Ont., is referred to with warm approval by the Ontario Milk Commission in their recently-published report. This man keeps a herd of 30 to 40 cows, which were all bought subject to the tuberculin test. The interior of the stable is whitewashed twice a year, and the floor sprinkled with lime daily. The manure is hauled over one hundred yards from the buildings. Before milking, the udders of the cows are well brushed. The milk on being drawn is at once removed to the milk-house, twenty-five yards away, where it is promptly cooled. The milk is delivered in the city at five cents a quart, chiefly in large quantities, to hospitals and hotels. The commissioners add: "In almost every district a few such illustrations are to be found, leading the way to general improvement."



Tully Farm Model Stable.

From Ontario Milk Commission's Report.

**Cleanliness Scientific.**

The accompanying cuts show exterior and interior views of the Tully Farm Model Stable, Syracuse, N.Y. This was one of the notable dairies visited by the Ontario Milk Commission. A brief description of their premises and methods may be of interest, as evidencing the importance and dignity with which modern thought has invested milk and its production, even though the standard attained may not be within the reach of the average dairyman. "Before entering the barn," the report proceeds, "everyone had to put on a clean white coat, lest some of the dust from the clothes contaminate the barns or the cows. The hose is turned on the ceiling, the floor and the cows, until only a few irrepressible flies are left to remind one of the unceasing menace of the germ kingdom. But the cows are not yet ready to be milked. A man goes along with a pail and a cloth and washes off the rear flanks and the udder. This operation is repeated by a second man, and a third devotes his attention to the udder only. By this time—which is after all only a matter of a few moments—it is regarded as reasonably certain that the cow will not give anything but milk, and men in sterilized white suits, seated on sterilized metal stools, proceed to milk with sterilized manicured hands into sterilized small-top pails. As each cow is milked, the milk is carried to a little room at the side, where it is weighed and the weight recorded, together with the number of the cow and the number of the milker. This record duly made, the milker goes back to another cow, but of course not without first washing his hands." It is not to be wondered at that on the score-card of the inspector this dairy is credited with 99 points. The milk in bottles, capped, sealed, and iced, is sold in New York for 12 cents net by the producers.

**Ontario's Milk Supply.**

The people of the Province of Ontario pride themselves on being strictly up-to-date in all that pertains to agricultural theories and practices, but the report of the Ontario Milk Commission, which was presented to the Legislature February 21st, shows very plainly that vast improvement is possible in the handling of the milk supply of cities.

According to the latest figures there are 1,200,000 cows in the Province. The total amount invested in the dairy business in Ontario is said to be about \$50,000,000, and the annual return is estimated at \$15,000,000. Bacteriology, which means the study of germs, and which has made such remarkable development in the scientific world in recent years, has established the fact that milk sometimes conveys the germs of tuberculosis, diphtheria and scarlet fever, which is reason enough why all possible precautions in the care of milk should be taken. The menace of milk is largely measured by the time which elapses between cow and consumer, as the germs increase very rapidly, especially in high temperatures.

The figures given regarding infant mortality in Ontario cities, while not so startling as to cause a panic, are sufficiently grave to warrant the adoption of more rigorous measures than are at present in force. Out of every 1,000 children born alive in these cities, 160 die in the first year, or more than in the succeeding forty. The commission submits that "a considerable portion of this awful toll can be prevented. The cold fact that out of every thousand children born alive, sixteen more die in Ontario cities than in New York, four more die than in Chicago, and forty-four more die than in London, England, in spite of the slums and congestion reputed to these great cities,

should touch the sympathies and arouse the consciences of Ontario cities and Ontario citizens."

In order to get first-hand information as to what is possible by strict oversight of a city's



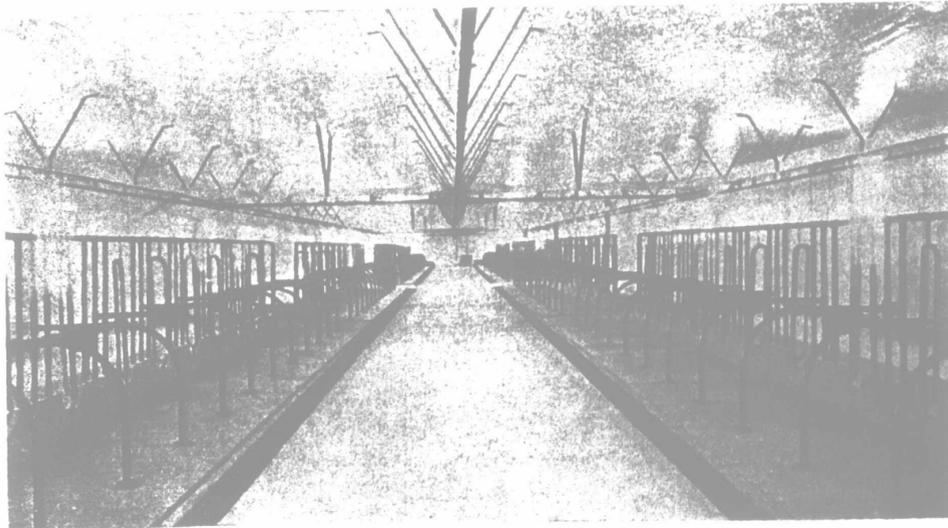
Damp, Dark Stables Like This Develop Tuberculous Cattle.

From Ontario Milk Commission's Report.



More Typical Than Ideal.

From Ontario Milk Commission's Report.



Interior Tully Farm Model Stable.

From Ontario Milk Commission's Report.

milk supply, the commission visited the cities of Rochester, Syracuse, New York, Detroit and Chicago. In New York the infantile mortality has decreased remarkably with the development of depots for the supply of pure or pasteurized milk for infants. The health officer at Rochester inoculates guinea pigs with milk, and if they develop tuberculosis, he immediately goes to the place from which the milk was obtained and insists on having all the cattle tuberculin-tested, or else the milk is kept out of the city. The score-card system, by which each dairy is rated according to its cleanliness and general condition, was found in use in several cities. The recommendation of the commission in this regard is that the Government should give power to municipal Boards of Health to inspect at the source of supply and keep milk out if it is known to be contaminated. It is suggested that qualified veterinarians be chosen for inspectors. It is urged also that municipalities establish and maintain infants' milk supply depots, and that tuberculous cows be weeded out from dairy herds.

In the matter of adulteration of milk, there is need for legislation. Out of 2,541 samples of milk tested in Toronto, 1,614, or about 40 per cent., were below 3 per cent. butter-fat. The conclusion is drawn that there is widespread adulteration, as natural milk from the cow is very rarely below 3 per cent. The recommendation is that Government fix a food value standard for milk of 3 per cent. fat and 12 per cent. solids as the minimum.

Pasteurization is not regarded as a Provincial ideal, but may be used as a municipal expedient, under proper scientific regulations. Several other suggestions are made, such as that in cities of 50,000 and over, milk should not be sold in shops except in sealed bottles, that first prominence should be given to the importance of cleanliness and coldness at every stage in the handling of milk, that consumers as well as producers of milk need education in this line, that a determined effort be made to weed out tuberculous cows from Ontario herds, etc.

The commission evidently believe that more real good can be accomplished in the meantime by an educational campaign, and by publicity of the facts as they have found them, than by legislation of an extreme character.

The commission, which was appointed by the Government as the result of the resolution of W. K. McNaught (North Toronto), at the Legislative session of 1909, consisted of Dr. A. R. Pyne, Chairman, brother of the Minister of Education; Messrs. J. R. Dargavel, M.P.P.; F. G. Macdiarmid, M.P.P.; W. F. Nickle, M.P.P., and W. Bert Roadhouse, Secretary.

To show how thoroughly in earnest is the Province of Quebec in regard to improvement in sheep and swine breeding, the General Live-stock Breeders' Association, at their recent meeting in Montreal, voted \$4,000 for the purchase of the best animals they can find in Canada and Europe, for use on the farms of the Province. Steps were also discussed for the further improvement of French-Canadian horses and cattle. A report was read to the effect that the decrease in pure-bred swine registrations was due to their being sold on the market, instead of for breeding purposes, because of the relatively higher prices of the former. The secretary reported the membership of the Association at 400, to which it has grown from 60, when formed 16 years ago. By sending out a number of capable speakers to an extended series of meetings, the Live-stock Branch of the Dominion Department of Agriculture is materially aiding in the campaign of agricultural education.

## GARDEN & ORCHARD.

### Other Insects, also Fungi, Attacking Apple.

#### THE LEAF BLISTER-MITE.

The Leaf Blister-mite is one of the latest pests to attack the apple and pear. Five years ago very few fruit-growers had heard of it; to-day, its work in many an orchard has demanded their attention. It attacks almost exclusively the leaves, the fruit being only to a very slight extent attacked. On the leaves, as shown by the figure, it causes little swellings on the under surface, at first light-colored, but later in the season turning reddish-brown on the apple, and almost black on the pear. The writer has never heard of it causing the death of any tree, but it is clear that where the foliage is badly attacked, as is often the case, the tree must be much weakened, and its profitableness greatly impaired.

**Life-History.**—The mites are very tiny creatures, too small to be seen distinctly by the naked eye. They pass the winter under the bud scales. When the buds are bursting, in spring, and the tiny leaflets are expanding, they come forth, and each female makes a tiny hole through the under surface of the leaf, and forms a little chamber inside. Here she lays her eggs. When these hatch, the young mites, by feeding and tunnelling, enlarge the blisters. On becoming full-grown, they emerge from these and seek fresh places on the same or other leaves to make blisters and lay eggs. There are several broods in a season, and on badly-infested trees almost every leaf will be covered with blisters by autumn.

**Means of Control.**—Fortunately, this pest is easily controlled, and requires only the same treatment as suffices for the San Jose and Oyster-shell scales, viz., one thorough application of lime-sulphur, either home-boiled or commercial, applied just before or as the buds are bursting. As the mites at this time are under the bud scales, special care should be taken to spray the twigs thoroughly.

#### OTHER INSECTS, USUALLY OF LESS IMPORTANCE.

1. Plum Curculio.—A small, rough-backed, blackish beetle, about one-quarter inch long; makes crescent-shaped cuts in apples soon after they are set, causing many to fall, and deforming those that still remain on the tree; also eating little holes, one-quarter inch in diameter through and beneath the skin of apples in autumn. For further particulars and treatment, see, under "Insects Attacking the Plum and Cherry," in a later article.

2. Bud Moth.—Tiny reddish caterpillars, with black heads; attack the buds when ready to burst; later fasten two or three leaves together for a hiding-place. Spray with arsenate of lead, 2 pounds to 40 gallons water, just as buds are about to burst, and again shortly before the blossoms open. If not very abundant, the latter spray will keep them fairly well under control.

3. Cigar and Pistol Case-bearers.—Tiny caterpillars, always protected by a little case, one looking like a cigar, the other like a pistol; attack the foliage about the time the buds burst. Usually, one spraying with arsenate of lead (2 pounds to 40 gallons water) shortly before the blossoms burst, is sufficient.

4. Cankerworms.—Slender, usually dull-green caterpillars that loop the body when moving; attack the foliage as soon as the buds burst. Spray with arsenate of lead (3 pounds to 40 gallons water) just after the buds burst, and again before blossoms burst; cultivate well up to July to destroy the pupæ in the soil; usually troublesome only in neglected orchards.

5. Railroad Worm or Apple Maggot.—Tiny white maggots that tunnel here and there through the apple, leaving brown, discolored areas wherever they go; fruit is also deformed to a considerable extent. Spraying is no use. Destroy fruit as soon as it falls, by hogs or sheep, or by gathering and feeding it. Cultivate orchard frequently until middle of June to destroy pupæ in soil. If only two or three trees are attacked, shake all the fruit off a few weeks before it is ripe, and feed it at once to hogs or cattle.

6. Buffalo Tree-hopper.—Small green, triangular-shaped insect, about one-third inch long, with two hornlike projections in front; lays eggs on upper sides of twigs and small branches, causing ugly scars that disfigure and weaken the branch. Seldom any trouble if orchard is cultivated and kept free from weeds.

7. Tent Caterpillars.—Stout, brown caterpillars, with white stripe along the back; attack the foliage early in the season; live in tent or web when not feeding. Destroy nest when caterpillars are in it. Spraying will also control, if done while caterpillars are small (arsenate of lead, 2 pounds to 40 gallons water).

8. Round-headed Borer.—A stout, white, cylindrical grub, about one inch long when full grown, bores in trunks of trees usually just at the ground, its presence indicated by sawdust-like castings; if numerous, are very destructive. Whenever cast-

ings are seen, use a knife, and cut out and kill the offender; can be kept off by winding paper—several ply of ordinary newspaper will work all right—around the trunk, up to about two feet from base; fasten tightly at top with rather weak cord, loosely rest of way, and mound soil up three or four inches at bottom to insure that beetles cannot get in to lay eggs anywhere.

#### FUNGOUS DISEASES OF THE APPLE.

**Nature of a Fungus.**—As most of the diseases attacking fruit trees are caused by what are called fungi, it seems necessary to state very briefly what we mean by a fungus. A fungus is a very tiny plant, which, unlike most plants, does not manufacture its own food, but lives entirely upon other plants, depriving them of their nourishment,

and often increasing at such a rapid rate that in a few days it does a very great amount of damage. Nearly every fungus, at one or more stages in its life, produces countless little spores which correspond to the seeds of higher kinds of plants, and which are so light that they can be carried through the air by the wind. When these spores light on certain kinds of plants, and get sufficient moisture and heat, they germinate, sending out tiny rootlets that pierce through the skin of the leaf or fruit, or through whatever part of the plant they can thrive upon. Once inside the skin, the rootlets branch and rebranch with

great rapidity, and so spread the diseased area. In combating a fungus, the only safe way is to cover the part of the plant that it attacks with some substance like Bordeaux mixture or lime-sulphur, in which the spores cannot grow. With these few points in mind, we may now pass to the consideration of the diseases of the apple.

**Apple Scab.**—The apple scab, as shown in Fig. 2, is doubtless familiar to everybody. It is our most common apple disease, and is found in almost every part of Canada. On some varieties, like Snow apples, it is very destructive to the fruit. Leaves are also attacked. In dealing with this disease, it is well to know that it spreads in the spring from spores produced by the dead leaves on the ground, and that these spores begin to germinate about the time the blossoms appear. Infection is rapid from this time until a week or two after the blossoms have fallen and the fruit is set. These facts indicate to us the proper times to spray.

**Means of Control.**—Spray, first, shortly before the blossoms open, and, second, immediately after they have fallen, which is the same time as for codling moth. Use for the first spraying either Bordeaux mixture (4, 4, 40), or commercial lime-sulphur, about 1 gallon to 30 gallons water; for the second, use Bordeaux (3, 3, 40), or commercial lime-sulphur, 1 gallon to 40 gallons of water. The second spraying does not require so strong mixtures, because, to control the codling moth, we require to spray much more heavily than at other times. A poison, such as 2 pounds arsenate of lead, should be added to every 40 gallons of the fungicide.

**Black-rot Canker.**—In the colder districts of Ontario, the Black-rot Canker, a fungous disease, is very abundant, and causes the death of numerous branches, and even of whole trees. The disease also attacks the fruit, causing a hard rot, and the leaves, producing on the latter small round dead spots, usually rather less than one-quarter inch in diameter. The disease on the leaves and fruit is, however, seldom serious, and is controlled by the same sprays as control the apple scab. On the trunks and branches, the fungus gets in through any kind of injury or crack, such as dead areas caused by sunscald or winter-killing, wounds made by implements in cultivating the orchard, or by boots in climbing, and cracks caused by bursting of the bark on branches in spring. The canker usually increases its growth year after year, until finally it has girdled the branch or trunk, and killed all the part above it. Usually, cankers two or three years old are black, charred, rough, ridged, and swollen in appearance, being visible, in many cases, several rods away from the tree.

**Means of Control.**—The first step in control is to prevent any fresh infections. As the spores begin to spread early in spring, it will be necessary to spray every apple tree thoroughly shortly before the buds burst. For this purpose, lime-sulphur, either home-boiled (20, 15, 40), or commercial, about 1 gallon to 9 of water, gives the best satisfaction. The applications already indi-

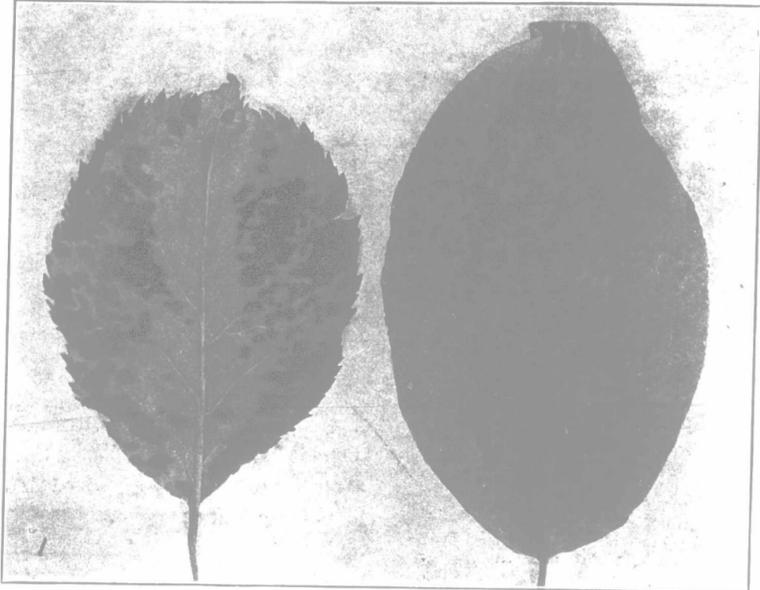


Fig. 1.—Work of Blister-mite on Apple and Pear Leaves.



Fig. 2.—Scab on Apple.

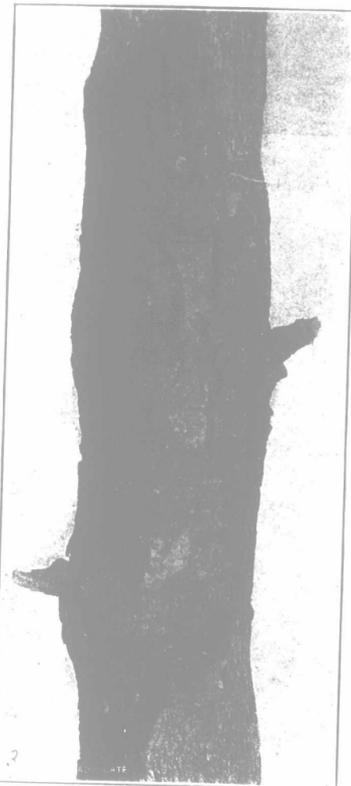


Fig. 3.—Black-rot Canker on Apple Branch.  
About two-thirds natural size.

FOUNDED 1866

THE APPLE.

of the diseases what are called are very briefly ingus is a very does not s entirely upon r nourishment, often increas- at such a rap- ate that in a days it does very great unt of dam- Nearly every us, at one or e stages in its produces less little es which cor- ond to the s of higher s of plants, which are so that they be carried gh the air he wind. When spores light certain kinds ants, and get ient moisture heat, they nate, send- out tiny root- that pierce gh the skin he leaf or ver through ver part of ant they can e upon. Once the skin, the ts branch ebranch with sed area. In y is to cover with some lime-sulphur. With these to the con-

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cated for apple scab will be all that are required in addition to this one early spray. It is not enough, however, to prevent new infections; the cankers on the main branches and trunks must be attended to, or else much loss may follow in the destruction of these trees by the disease. Use a drawknife, and carefully cut out all the diseased bark, until the healthy bark alone is left; then wash the cut area with lime-sulphur or Bordeaux mixture, and paint it thoroughly with white lead free from turpentine. It may be necessary to re-paint during the season. Branches that are too far gone should be cut off and burned. This cutting out and painting should be done early, before growth begins. Excellent results have followed from this method of treatment this last season.

O. A. C., Guelph. L. CESAR.

Co-operative Onion-growers' Storage.

The cement, frost-proof onion-storage warehouse, erected last fall by the Scotland (Ont.) Onion-growers' Association, briefly described in "The Farmer's Advocate" of October 14th, 1909, is reported an unqualified success. The walls of this building are twelve feet in height, and are 16 inches in total thickness. This total is made up of three 4-inch concrete walls, separated by two air-spaces of 2 inches each. The whole is solidly bound together by a number of 1/2-inch iron rods with bent ends, a foot or more in length, laid across and imbedded as the building proceeded. Corners were specially reinforced. A considerable quantity of onions were stored in this building last fall, and they have kept in excellent condition. Prices received of late are nearly 50 per cent. in advance of those prevailing in October.

POULTRY.

Caponizing.

Would you kindly tell me through the columns of "The Farmer's Advocate" how to emasculate male fowl? What age has the fowl to be? Huron Co., Ont. A SUBSCRIBER.

The benefits to be derived from caponizing cockerels are that the birds are rendered quieter, so that a large number may be kept together; they grow to a greater size, and fatten more readily; and the flesh is more valuable. In the large American cities capons are uniformly quoted at a higher price than ordinary chickens, and there is a steady and increasing demand for them. In Canada, it is doubtful whether it is worth while to practice caponizing, as the special demand for such fowl is very limited, and at present seems to be pretty fully supplied.

BREEDS SUITABLE.

Authorities are agreed that it is not profitable to caponize fowls of the smaller breeds, but Plymouth Rocks, Wyandottes, Light Brahmans and Langshans are very suitable, as, no doubt, other rapid-growing, heavy-weighted breeds are, also.

PROPER AGE.

As soon as the cockerels weigh 1 1/2 to 2 pounds, or when three to four months old, they should be operated on. At this time they are of a more convenient size than earlier, and the risk is not so great as when the operation is deferred until they are six months of age. Dealers in poultry supplies sell sets of instruments necessary for caponizing, accompanied by full instructions as to their use.

PREPARING THE BIRD.

Two conditions are essential. First, that the fowls be fasted from both food and water for 24 to 36 hours, and, second, that there shall be clear, strong light. If the day chosen should prove cloudy, it is better to defer the operation until another time, meanwhile giving a very little food. Some sort of operating board or table of convenient size and height is necessary, the head of an apple barrel serving in a pinch. On this the bird is laid on its side, with the right side uppermost, and fastened by a stout cord put twice around its wings close to the body, and another put around its loeks above the hocks. Weights are attached to these cords, and hang over opposite sides of the barrel, or cords may be passed through holes in barrel head or board, and weights hung below. Moisten and remove the feathers from a small area just in front of the hip.

THE INCISION.

With the left hand draw the skin towards the hip, and with a sharp, thin knife make an incision of an inch to one and one-half inches in length, between the first and second ribs next to the hip, and parallel with them, and about an inch below the backbone. In cutting, be careful not to puncture the bowels. A spring-wire spreader is then inserted to spread the opening between ribs. The intestines will now be visible, covered by a thin membrane, which is next torn apart with a small steel hook. The upper testicle, yellow, or sometimes rather dark colored, should now be visible,

and about the size and shape of an ordinary bean, close up against the backbone. By pushing aside the intestines, the lower one can also be seen, and should be removed first.

THE CANULA.

Different types of instruments are used for this delicate part of the operation, but we mention but one, the canula. This consists of a hollow tube, the lower end of which is compressed and closed, except for two small holes, through which runs a horse hair or wire, forming a loop below, the upper ends coming well up above the end of tube. Having loop just large enough, work it over the testicle, being careful to enclose the entire organ, and yet not to catch any of the near-by artery. Tighten up on the free ends of the hair or wire, sawing lightly, if necessary. When separated, remove, and repeat the process with the other.

NO STITCHING NEEDED.

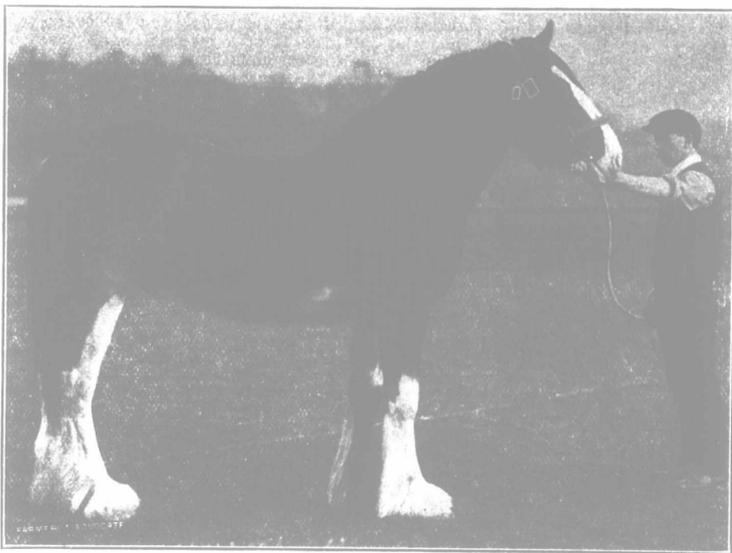
Be sure to remove all blood clots, feathers, or other foreign matter. If bleeding is at all profuse, absorbent cotton can be introduced into the body by means of hook or nippers, and removed after saturation. Take out the spreader, and the skin, having been drawn to one side before the incision was made, now returns and covers it.

Release the bird, and allow him soft feed, which he will eat, seeming to be very little inconvenienced by the operation.

An Amateur Poultry Experience.

Editor "The Farmer's Advocate":

About two years ago I commenced raising a good class of fowl. I secured a pen of White Wyandottes, Rose-comb. I also secured an incubator and brooder—a 200-egg machine. My wife attended to it, and ran it strictly according to rules given with machine. We had three hatches: First hatch, 156; second hatch, 160; third hatch, 140; total, 456. We lost a few, but not many, on account of brooder being too small. I kept the chickens enclosed for about three weeks with wire, in a piece of nice dry grass, about one-quarter of an acre, while using



Dunure Footprint (15203).

Clydesdale stallion; foaled May, 1908. Winner of first in the two-year-old class, the Junior Jubilee Champion Cup and the Cawdor Cup, Glasgow Stallion Show, 1910. Sire Baron of Buchlyvie (11263).

the brooder. After that I had two small houses, 6 x 10, raised about two feet off the ground. Chickens would go under houses out of sun and rain, and were shut in houses every night for fear of skunks or other small animals. They were let run in meadow as soon as hay was cut. Grass-hoppers being plentiful, they secured a lot of cheap food, and made splendid thrift. Their feed was composed of ground oats, with hulls sifted out, mixed with bran and shorts and ground corn, equal quantities, with a little ground charcoal, all mixed together, and fed dry twice per day, and whole wheat once after chickens were about three weeks old, with plenty of separated milk and water. I used all my own eggs while hatching, as I had none too many after I disposed of some eggs for hatching. I sold the chickens, some for 50 cents each, some 75 cents, some \$1 each. Chickens brought about \$300; cost of feed and other expenses, \$100; profit, \$200. I sold a bunch of my cockerels to the Pembroke Poultry Yards of Canada.

In my short experience in raising poultry for profit, I conclude the main points are to see that everything is kept strictly clean. The man who doesn't attend to all the small details, had better not commence, as he is likely to find his profit on the wrong side. JAMES CARMICHAEL, Renfrew Co., Ont.

THE FARM BULLETIN.

Voice from a Producer.

Quite a furor has been created by some of our daily papers through a discussion of the subject, viz., "The Cost of Living." While this side of our subject very directly interests our city people, their side is being very ably discussed through the medium of their press. Why should not the agriculturists be also heard from, as producers, through a clear setting-forth by the agricultural press, of something of the cost of production. Following through the Toronto dailies the reports of interviews obtained from members of the Legislature, I note that without exception the consensus of opinion expressed has not been that the farmers were merely coming into their own, and most deservedly merited the prevailing prices for their products. This is easily explained, for, while some of these so-called farmer-members have small interests in agriculture, they have much vaster interests in urban centers, either industrially, commercially, or otherwise. As a result of small financial returns derived from agricultural pursuits, we have the existing conditions, i. e., our town and city population has greatly increased, with a corresponding decrease of population in the country. This was very ably pointed out by the Deputy Minister of Agriculture, C. C. James, in Toronto, very recently, who, by statistics, clearly showed that there has been a change-over of from 350,000 to 450,000 in the relative population of the rural and urban districts; or, in other words, nearly half a million change, of the people, from country to town, in ten years—a great decrease in producers, and a proportionate increase in consumers.

While a few have been loyal enough to the pursuit of agriculture to stay by the occupation and remain on the farm, are they not most deserving of good prices for farm products? Should they not be well compensated, since they are denied the pleasures, ease and advantages of town life which those who left the farm must have held so highly in their esteem? But, after all, leaving city life, and its attractions, and its attractions, for the moment, is it not for us on the land to assert our disposition towards this question of produce-value, by every means available, mutually co-operating as one in our stand for remunerative prices? We have a side to be heard from, as well as the consumers.

True, the consumers are paying high prices for their food commodities, but the prices the farmer receives as his produce leaves the farm is far from equivalent to the price paid by the consumer. Here our occupation is subject to a horde of parasites, which prey upon our efforts and success, in the form of commission men, jobbers, middlemen, retailers, cold-storage agents, transportation companies, etc.—all a part of the city's organization—preying upon producer and consumer alike. How many men, wearing white fronts, and having soft hands, exist between the hard-handed son of toil and the consumer? In the majority of cases these men left the farm and country, and, coming to the city, still manage to live from agriculture, and if the townspeople would have the produce at a price nearer the price the producer receives, let them, for one step, set about to eliminate a number of these, rather than assist them into bigger profits by squeezing down produce values on the farm.

But to return to those on the land: While we see in the columns of our newspapers almost daily, from men in their offices who are supposed to know—although, perchance, they do not—that farmers are making big profits; or, in striking headlines, regarding the cost of living, "Farmers are Reaping the Benefits," etc., have they an intelligent understanding of the situation?

I would like to ask, fairly, what is the dividend on the investment from a good, well-stocked, well-equipped 100-acre farm to-day, even at the enhanced value we are receiving for our produce? A very conservative estimate would be that such a farm as I have referred to would, to-day, cost its owner ten thousand dollars. We like to hear agriculture referred to as the basic industry; still,

I would like to see some of our shrewdest city business men come out to the country, take the aforementioned enterprise in hand, and show us a declared dividend of from five per cent. upwards on his yearly operations, after deducting wages for himself and the several members of his family, who all have to work on the farm, make ample allowance for depreciation of stock and equipment. And it is this matter of labor that is expended by farmers and their co-workers that is never accounted for in financial returns that enables farmers to make any financial success at all of the business. In his "Wealth of Nations," Adam Smith says: "No equal capital puts into motion a greater quantity of productive labor than that of the farmer. Not only his laboring servants, but his laboring cattle, are productive laborers. In agriculture, too, nature works along with man, and, though her labor costs no expense, its produce has its value." The great economist saw that farming called forth the highest qualities of labor, and that effective farming demanded a high order of intelligence and much special knowledge. He also saw clearly that the fields produced and required a higher order of workman and citizen than the town. It is a denial of the luxuries and advantages of city life, and the inestimable value of the labor above referred to, that combine in the cost of production, for which a great many would have us receive still less remuneration.

It is said that farmers are receiving greater returns than formerly for their labors, but what of the increased expense of farming operations of to-day, which is treble that of a few years previous? While the cost of living is great in towns and cities, it is proportionately great in the country. Organization and monopoly are fixing the values of goods we must use, viz., all kinds of manufactured and canned goods, farm machinery, and even hired help is becoming organized, through the far-reaching influence of the labor unions. Scarcity of satisfactory farm help is seriously hampering our greatest industry, viz., dairying; and the excessive prices of feed, and packers' combines, have discouraged hundreds of producers of the bacon hog. And yet the farmer never experienced such an opportunity to get rich. Undoubtedly, the employees of wealthy employers are the ones in our cities who are feeling the pinch most, while profits are being piled up, and greater dividends declared by these enterprises. When these employers wish to economize, where do they strike first? Always to the wages of their employees, regardless of existing conditions, while they and their families continue in luxury and extravagance. I am free to admit that it is costing the city dweller a lot to live—even a moderate living—but let them look to their employers and existing conditions in the city, where so much is wasted unwarrantably, and the unfair profits their middlemen and retailers are taking, to the cold-storage systems as practiced, etc., rather than to the country, for redress. Farmers can ill afford to help them out by giving their retailers, etc., still greater profits, or helping on to greater financial gain the employers whom these men are serving; or, in another light, the making of more millionaires in our cities. One Canadian city is already credited with nineteen millionaires. Can this be said of the country? Is this the object in our nation-building—the piling up of wealth in the hands of a few, at the peril of our country, and its people's development? The arteries of agriculture have been bled long enough already for this purpose. The great need of co-operation is here exemplified, that we farmers may assert ourselves, and hold values for our produce up to the present level, and higher, letting the consumer know that there is also a producer, and that there is a cost of production, as well as a cost of living. CLARK HAMILTON.

### Wisconsin Encourages the Boys.

To inspire young men and boys with greater interest in agricultural study, and with ambition to fit themselves for the best type of farm work, Wisconsin University offers a five-day free course in corn and grain judging. All boys who won in grain contests at the fall county fairs have their entire expenses in Madison paid by the College. This is a plan that might be extended to winners in other classes.

### "Recognition Exercises."

The Wisconsin College of Agriculture recently, in recognition of their contributions to the advancement of the industry, presented testimonials to Seaman A. Knapp, Washington, D. C., who introduced Japanese rice in the South, and started demonstration farms in twelve States; to Geo. C. Hill, Rosendale, Wis., Farmers' Institute worker and organizer of Farmers' Clubs; and Herman A. Briggs, Delavan, Wis., importer of Percherons and improver of the standard of horse-breding in the State.

The New York Highway Commission has awarded contracts amounting to nearly \$3,000,000 for the construction and improvement of State roads this year.

### The Canadian Seed-growers' Association.

Editor "The Farmer's Advocate":

Having attended the Canadian Seed-growers' meeting at Ottawa, and also having received a copy of the report of their fifth annual meeting, the thought has occurred to me that it would not be unwise to criticise some of the matters pertaining to this Association.

The number of members attending the Seed-growers Convention of 1910 was, perhaps, about forty, and, examining the number that were there, one would think that it was chiefly made up of different gentlemen who were in the employ of the Government part of the time, and many more who are in the employ of the Government all the time. The percentage of laymen would be very small.

From reading the treasurer's report for 1908, one would judge that the expenses of most of the officers of the Association were paid by the Government. Whilst this is not entirely wrong, it does not bode well for the future if this should continue so, as meetings that are being thus held are really allowing an opportunity to the directors and some members to have a recreation paid for by the Government.

It would seem that it would be healthier for an organization of this kind if the delegates or members attending the convention were such that, outside of the secretary, they would pay all, or at least most of, their expenses themselves. One would wonder very much how many would attend in such a case, as, indeed, some of the members came from very long distances, their expenses must have been fairly high, which leads one to believe that the item of travelling expenses would run into quite considerable money.

In the President, the Association has a splendid officer, but one would be led to think that his endeavor was to etherealize some of the special Government employees, rather than to give an opportunity to the general run of the members to offer a candid expression of their views.

Whilst this is a very laudable object to the different gentlemen that are being well paid under the Government, the chairman really should not forget the layman, who really has to bear the largest share of the expense in a general way, and who has the least opportunity to give his views. Dr. Robertson is really the right man in the right place for the purpose of raising some of the Government employees up to the highest standard, and think that this part of the convention is ably carried out by him.

One would wonder how such a convention would turn out if of the members there were not so many Government employees, but individuals who would have to pay their own expenses, and go there to attend such a convention.

Some of its members should attend to see and hear, in order to realize the position of the Canadian Seed-growers' Ass'n, because one would think, from the name of the Ass'n, that it would be destined to be a good, strong, useful body for the future. The opportunities are great, and members outside the Government should attend, to make their own observations, and appreciate the annual report which is gotten out by the Government. From observation at the present time, one would think that the larger part of the opportunity had been given to the different professors to air their views thoroughly, one with the other, in open contest.

The report of the secretary (who, by the way, is also treasurer) is all carefully gotten up, and does credit to him, but, at the same time, one would think that he has sufficient time in the course of the year to be able to attend to all this. We may be wrong, but it is only our opinion.

By all means, however, to stimulate, and increase and encourage the growth of this Association should be the desired end of the officers connected therewith, and the officers should encourage in every way attendance at such a convention, not by paying the expenses of a majority of the members, but by drawing those who are willing to stand their share of paying their own expenses. This, from an observer's standpoint, would seem to increase and stimulate the Association to an extent beyond what it evidently has attained, judging from close scrutiny of the report, which any individual can receive and peruse for himself.

It is to be hoped that these outside members will take advantage, and be on hand another year when the annual meeting takes place, so that they can judge for themselves. OBSERVER.

An associated press cable dispatch, recently published on this side of the Atlantic reports that a Board of Agriculture order reopening the ports to Argentine cattle was momentarily expected in London, Argentina having given assurance that there is no fear of the disease spreading from Brazil or Paraguay. This seems to confirm the last week's issue, that Argentine cattle were to be admitted for slaughter in bond, on the same basis as North American cattle are now accepted.

### Mutual Fire Underwriters Meet.

The Mutual Fire Underwriters' Association of Ontario is a useful body. It is composed of delegates from the Mutual and Cash Mutual Fire Insurance Companies of the Province, mostly township or county local companies, who meet yearly for conference on all matters pertaining to the insurance business, and particularly to agree upon a prudent line of policy to be followed in regard to knotty questions that affect such companies, which may arise from time to time.

The annual meeting was held in Toronto on the 16th and 17th of February, thirty-six Mutual and Cash Mutual Companies being represented by about seventy-five delegates. President T. R. Mayberry, M. P. P., in his opening address, referred to the serious loss the Association had sustained through the death of the late secretary-treasurer, Hugh Black, of Rockwood. He also called the attention of the meeting to the necessity of taking some action whereby uniform rates may be adopted for the installation and use of gasoline engines in farm barns for power purposes.

E. J. Pearson addressed the meeting on the use of gasoline engines for power in farm barns, and gasoline stoves and lights. After considerable discussion, the Association recommended a form of permit to be used where gasoline engines are used for power in farm barns. This form imposes certain conditions on the policyholder:

1. Payment of a fee of 50 cents, and an extra rate per annum of 60 cents per \$1,000 insured, if engine is placed within twenty feet of buildings or stacks.

2. Stationary engines must pump gasoline from tank of galvanized iron of at least 1½-barrel capacity, situated 25 feet or more from building, and underground, if possible. Exhaust pipe to extend two feet, to open outside, and encased in fireproof material.

3. The assured warrants that all precautions regarding having no artificial light near engine or tank, no gasoline stored in building, etc., will be observed.

Appended to form is the following important caution: "The principal danger from gasoline engines is in having the gasoline about. At ordinary temperature, gasoline continually gives off inflammable and explosive vapor, and a flame some distance from the material will ignite it through the medium of this vapor. The vapor from one pint of gasoline will make 250 cubic feet of air explosive. It depends upon the proportion of air and vapor whether it becomes a burning gas or destructive explosive. Beware of any leaks, and never forget how dangerous a material you are using."

A discussion arose as to whether a reduction of rates should be allowed on buildings rodded with lightning-rods. Two or three companies make such a reduction when rods are in good repair, but the majority make no difference. As a result of the discussion, however, the Executive Committee were instructed to prepare a bulletin for publication, dealing with the subject of "Protection Against Lightning." This is certainly a move in the right direction.

The election of officers for the ensuing year resulted as follows: President, Wm. Purvis, Columbus; 1st Vice-President, J. J. Stewart, Britannia; 2nd Vice-President, J. C. Dance, N. & S. Dorchester Co.; Secretary-Treasurer, James Beatlie, Fergus; Assistant-Treasurer, W. G. Wiloughby, Walnut. Auditors—John H. Campbell, Brantford; R. R. Robertson, Galt. Executive Committee—J. N. McKendrick, Galt; James McEwing, Drayton; J. Pearson, Kintore; G. E. Fischer, Burlington; W. W. Nanceville, Dereham & N. Oxford Co.

### Lots of Cash for Cornell.

Large appropriations are to be made this season for the "development and extension" of the New York State College of Agriculture, which is so thronged with students that there is not room for laboratory work or lectures. The bill provides \$50,000 for heating plant; \$113,000 for classroom, laboratories and auditorium; \$90,000 for poultry husbandry; \$215,000 for plant industry building, and \$154,000 for home economics. The veterinary college is to be enlarged to the extent of \$130,000, to provide facilities for chemical teaching in diseases of small animals, therapeutic research, and an hospital. The total expenditures amount to \$782,000. Suppose a cyclone like this were to strike Col. Matheson's Ontario surplus!

### Alfalfa and Tile Drains.

I intend sowing some alfalfa on a well-drained field, and I heard that the roots would fill up the tiles. Will you please answer in your valuable paper if such is the case? W. K. E.

Ans.—This is a point on which we are not prepared to speak so authoritatively as we would like. Will every reader who has sown alfalfa over tile drains sit down at once and write us his experience, whether favorable or not? We want to investigate the facts, and can only do it in the light of wide experience.

**Writers Meet.**

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**More About the Passenger Pigeon.**

Apt to Be Mistaken for the Mourning Dove.  
\$1,000 AWARD FOR FIRST DISCOVERY.

My last communication regarding the offer of an award of \$300 for the discovery of a pair of nesting passenger pigeons brought me letters from persons residing in British Columbia, Manitoba, Ontario and Quebec. All the correspondents stated that they had recently seen passenger pigeons, and that they would have little difficulty in finding a nesting pair. These reports lead me to believe that the wild dove observed is, in most cases, at any rate, the mourning dove, and not the passenger pigeon.

Let me make a few comparisons between these two species of pigeons: (1) The passenger pigeon is much larger, its length being 16 inches, that of the mourning dove under 12 inches; (2) the color of the rump of the passenger pigeon is a bluish-slate, that of the dove olive grayish brown; (3) the mourning dove has a small black mark below the ear; (4) the flight of the passenger is noiseless, that of the mourning dove is accompanied by a whistling sound of wings; (5) the lower belly of the passenger pigeon is white in both sexes, that of the mourning dove is cream-buff; (6) the notes of the passenger pigeon are a series of coo-coos, much faster and less plaintive than those of the mourning dove; and (7) passenger pigeons always build their frail nest of sticks on the branches of trees, and seldom or never on or near the ground, as is the habit of the mourning dove. Both birds possess tails that are pointed and widely tipped with white or grayish-white.

When passenger pigeons were numerous they nested in large colonies and migrated in immense crowds, but now it is believed that, on account of the terrific destruction of these birds a generation or so ago, they now (if any exist) nest in isolated pairs, and perhaps in regions distant from their former range. Mourning doves are less gregarious and migratory. In winter, when food becomes scarce, they approach the farm and feed among the poultry with the sparrows and other winter birds, and, if undisturbed, they appear as gentle as domestic doves. They may have three or four broods in a season. Southern Canada seems to be the northernmost limit of their range.

It is a matter for congratulation that the most influential papers of Canada are taking much interest in the plan proposed by Colonel Kuser and Dr. Hodge to save the passenger pigeon. School journals are also asking their teacher-readers to interest the scholars under their charge in the search for the bird. For the coming spring and summer, no better nature study could be undertaken by teachers than the study of birds, including a quest for the passenger pigeon.

Dr. Hodge reports that local volunteer offers of awards of \$100 each have been received for Michigan, New York, Massachusetts, Pennsylvania, New Jersey, Connecticut and Illinois. Who will be the first to offer awards for our Canadian Provinces? John E. Thayer most generously offers five awards of \$100 each for the five most likely States or Canadian Provinces from which no local offers have been secured by April 15th. More than this, John P. Childs adds \$700 to Colonel Kuser's award for first nesting pair, and also offers \$500 for subsequent finds. So the person who first makes the discovery will receive \$1,000, and the local award as well.

Such an offer ought to stir every school boy and girl this summer to roam the woods in search of the passenger pigeon. W. LOCHHEAD,  
Macedonald College, Que.

S. D. Dawson and C. W. Baker, of Middlesex Co., Ont., visited Brantford on February 25th, and organized a branch of the Ontario Vegetable-growers' Association. The officers elected were: President, P. Greenwood; 1st Vice-Pres., J. C. Taylor; 2nd Vice-Pres., A. McFarlane; Secretary-Treas., T. A. Macburn. It is expected that the above officers will head one of the most-active branches in the Province.

Three hundred Vermont farmers have been spending a week at the Agricultural College, Burlington, enthusiastically studying the "new farming" in the light of present-day opportunities and knowledge. The staff of speakers included men from the College staff, State Board of Agriculture, and the Department at Washington.

With representatives present from all parts of Canada, and with visiting delegates from the United States, the eleventh annual convention of the Canadian Forestry Association was opened at Fredericton, N. B., on February 23rd.

According to reports, the City of Woodstock, Ont., seems disposed to follow Gudolph's example, by establishing a municipal forest reservation, to protect the source of its water supply, and confer other benefits incident to a municipally-owned forest park or area.

**Sheep and Swine Prizes for Western Fair.**

The Sheep and Swine Committees of the Western Fair met in London, Ont., on Saturday, Feb. 26th, to apportion prize-money, choose judges, and transact other business. The Western Fair Executive had decided this year to add \$1,000 to the live-stock prize list, making increases of \$200 each to horses and cattle, \$125 each to sheep and swine, \$100 "to the dogs," and \$250 to poultry, pigeons and pet stock. The Sheep Committee disposed of its increase by making provision in each of the eight classes for a Canadian-bred pen of one ram, two ewes one year old and over, and two ewe lambs, bred and owned by exhibitor. For these pens, first and second prizes of \$8.00 and \$5.00 are respectively provided. In section 9 (for graded flocks), the first prize was raised a dollar all the way through; seven dollars was added to the fat-sheep classes, and six dollars placed as a first-prize in Hampshires, where only a ribbon was awarded last year. A resolution was passed asking the executive to take up with the railways the question of rates for stock, as it was felt that last year's rates were excessive. Another resolution endorsed Mr. Bowyer's bill, now before the Provincial Legislature, to amend the Sheep and Dog Law. Both sheep and swine committees also passed motions asking the executive to do away with the clause in the rules which withholds a third prize where no competition occurs. This request is not unlikely to be granted, as the executive are disposed to comply with the wishes of exhibitors as far as possible.

The Swine Committee had before them the resolution of the Dominion Swine-breeders' Association, by which their grant to the Western Fair was to be withheld unless the prize list was increased by \$25 in each class. Previous to learning of any such action, the Fair executive had decided to increase the grant by the \$125 named above. The Swine Committee apportioned this as a \$25 increase to each of the five breeds specified in the prize list, making no increase to the section for "any other breed." This \$25 increase was distributed by adding one dollar to each second and third prize right through, while for sows and boars under six months the first prize is also raised a dollar. A third prize was provided for Hampshires. It is hoped this action will be satisfactory to the Swine-breeders, and that the several grants of \$50 from the Dominion Swine-breeders' Association, \$50 from the Ontario Yorkshire Society, and \$25 from the Berkshire Society, respectively, will be continued. If these are cut off, the swine prize list will stand where it did last year.

**Telephone Regulation.**

The Ontario Telephone Act, which was mentioned last week as to be brought before the Legislature, will almost certainly become law. At its second reading, it received the hearty support of both sides of the House, and was carried amid applause. Hon. A. G. McKay, in supporting the bill, said that it supplemented what the Dominion Government had already done. The Dominion Government had committed the control of trunk telephone lines to the Railway Commission. Ontario was giving to the Ontario Railway and Municipal Board the control of the Ontario companies. The member for Peel, S. Charters, who introduced the bill, said: "This bill does not aim to crowd out or knock anyone. It seeks merely to meet the requirements of the rural districts, and to break down monopoly. It hopes to make the telephone system of Ontario as complete and efficient as possible. It opens the way for long-distance connections at one-half the present rate." In that hope all will join. The enormous development of rural telephones in Ontario, and the safeguarding of the public in connection therewith, has made some sort of Government regulation necessary.

**Beef Trust Indicted.**

Interest in the increased cost of living has in the United States resulted in the Ways and Means Committee, and also a select committee in the Senate, being instructed to make a thorough investigation of the subject. Something more definite has meantime come about. More than a month ago, a grand jury in New Jersey started an inquiry into the cold-storage business, as it was suspected that through that medium the food supply was so manipulated as to force higher prices from the public. The sequel to this inquiry is that the beef trust of the United States, involving six great packing companies and twenty-one packers, multi-millionaires several of them, were indicted February 25th under the laws of New Jersey, with conspiracy in limiting the supply of meat and poultry. The corporations named are: The National Packing Co., Armour & Co., Swift & Co., Nelson, Morris & Co., Hammond Packing Co., and G. H. Hammond & Co. The offence is extraditable, and the public prosecutor announces that he will force extradition, if necessary. None will be spared.

**To the Interest of Every Factory.**

The question of supply of raw material to the cheese factory and creamery is a first consideration; the finished product, in paying quantity, and of good quality, is mainly dependent on a large supply of good milk and cream.

As the supply is also of importance to every director of any dairy company, every factory-owner and every maker, such men should see to it that each patron is interested in cow-testing. Once a patron begins testing each cow individually, he commences to take far more interest in the herd generally, and is likely to supply not only more milk and cream, but far better quality, and cared for better. In many herds the milk yield has been increased by twenty and even thirty per cent. in three years, through a knowledge of each animal's capacity, which led to weeding out the poor cows and feeding the good ones a little better. Is it not to the advantage of every factory to see its patrons prosperous? If farmers supply more milk or cream from a given number of cows, or from a certain number of acres, it means that the factory receives more raw material from the same territory, thereby lessening the cost of hauling, and lowering in proportion the expense of making, while a longer factory season is possible, as the milking period is extended.

Factory officials are invited to recommend cow-testing to all their patrons. If a list of names and addresses be sent to the Dairy Commissioner, Ottawa, literature on the subject will be mailed direct to each. C. F. W.  
Ottawa.

**The Status of Agriculture.**

Rumors have been published in Toronto evening papers to the effect that Prof. C. C. James, Deputy Minister of Agriculture, had been offered an important position under the Dominion Government, but the report was incorrect. Mr. James purposes remaining in the Ontario Department, and it is gratifying to know that his position is to be put on a par with that of other senior deputies, with a stipend of \$4,000 per year, beginning with Nov. 1st, 1910, and in the interval \$3,600. This recognition of the status of the Department of Agriculture and its efficient Deputy will commend itself to the good judgment of the public, and the agricultural community in particular.

**American Ayrshire Milk Record.**

The Ayrshire cow, Annie Laurie 2nd, owned by E. H. Cohoon, of Harrietsville, Ont., has recently completed an officially-supervised yearly milk and butter test which places her at the head of the list of Ayrshire cows in North America as a milk producer. She gave, in 365 consecutive days, 15,134.4 pounds of milk, and 598.5 pounds of fat, equivalent to 698.25 pounds of butter.

A rumor that the Dominion Government proposed not to renew the steel bounties has caused uneasiness in certain circles. It is officially stated that no such proposal has been made. The present legislation provides for the payment of bounties up to the end of the next fiscal year. Mr. Fielding's statement meant merely that no legislation on the question would be brought in this year. Final settlement is deferred until next year.

In spite of the prophecies of the decline of British trade, the complete returns for the year 1909 show a decided advance over those of 1908. The increase in total exports amounted to £13,017,388, and in imports to £31,787,030. The year's total exports, £469,744,909, has never been surpassed, except in the boom year, 1907. A wonderful country is the Old Land.

The Educational Commission of the P. E. I. Legislature, appointed in 1908, which has been taking evidence all over the Province, has submitted its report. This recommends an increase of teachers' salaries of from 50 to 60 per cent., schemes of consolidation, adoption of the new series of Ontario Readers, and an annuity for teachers after the age of sixty.

A bill to amend the Assessment Act, by giving municipalities power to fix a higher rate of taxation on land, and a lower rate on improvements, income, business, and all assessments other than land, has been brought before the Ontario Legislature by A. E. Fripp, West Ottawa.

Prof. Chas. A. Publow, an Eastern Ontario boy, on the staff of the State College of Agriculture, Ithaca, N. Y., has been honored with the presidency of the New York Butter and Cheese Makers' Association.

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## MARKETS.

### Toronto.

#### LIVE STOCK.

At West Toronto, on Monday, Feb. 28th, receipts numbered 77 cars, comprising 1,533 cattle; 28 sheep; 39 calves. Trade was good, but not brisk. Prices firm. Prime picked butchers, \$6 to \$6.25; loads of good, \$5.65 to \$5.80; medium, \$5.25 to \$5.50; common, \$4.50 to \$5.15; milkers, \$4.50 to \$6.50; calves, \$4 to \$8 per cwt. Sheep—Ewes, \$4.50 to \$5.25; rams, \$3.75 to \$4.25. Hogs—Dealers quoting \$9 for selects, fed and watered, and \$8.75, f. o. b. cars at country points.

#### REVIEW OF LAST WEEK'S MARKET.

Receipts of cattle last week were fairly liberal for February, but in spite of that the market was in good shape. Demand was strong from start to finish, and there were scarcely as many cattle offered as the trade required. Shipping orders were strong, and the local butchers and abattoirs evidently had a good outlet for beef, as they were active and eager buyers most of the time.

The total receipts for the week were as follows:

	City.	Union.	Total.
Cars	197	137	334
Cattle	3,183	2,264	5,447
Hogs	2,850	1,267	4,117
Sheep	730	172	902
Calves	307	70	377
Horses	5	216	221

Total receipts for the corresponding week of 1909 were as follows:

	City.	Union.	Total.
Cars	160	70	230
Cattle	2,574	1,983	3,657
Hogs	2,273	900	3,173
Sheep	636	251	887
Calves	205	7	212
Horses	1	125	126

The above figures show a total increase of live stock for the present week at both yards of 104 carloads, 1,790 cattle, 944 hogs, 15 sheep, 165 calves and 95 horses, compared with corresponding week of 1909.

Included in last week's offerings were some very good, well-finished steers and heifers, but the proportion of the choice grades was small, compared with the number of common, light cattle being offered.

An advance of 5c. to 10c. was established in the market for export cattle since our last letter. Though shippers took all of the good, heavy steers they could find, they were not able to find as many as they needed to fill orders, hence lighter cattle took their attention. This caused the butcher cattle to sell at firmer prices also. Geo. Campbell, buyer for Morris & Co., of Chicago, on Monday, February 21st, bought a large number of cattle weighing from 1,000 to 1,200 lbs. each, for export purposes. These weights, as a rule, are, or at least used to be, ignored entirely by the export dealers,

and were left for the local butcher trade. Since the American buyers commenced to take them, this class, which consist of the best butcher cattle, have advanced fully \$1.50 per cwt. over former prices, and sold nearly as high as the best exporters; in fact, in some instances, higher.

Exporters.—Geo. Campbell bought for Morris & Co., 294 Manchester cattle, 1,000 to 1,200 lbs., at \$5.25 to \$5.90; also 97 cattle averaging 1,280 lbs. each, at \$5.80 to \$6.40 per cwt. E. L. Woodward bought for Swift & Co., 230 cattle: steers at \$5.75 to \$6.20; heifers at \$5.35 to \$5.65; bulls, \$4.85 to \$5.50. Whaley & Rice bought for Armour & Co., 100 cattle for the London, England, market, 1,273 lbs. each, at \$6.25 per cwt.

Butchers.—Prime picked lots sold from \$6 to \$6.25; loads of good, \$5.60 to \$6; medium, \$5.20 to \$5.50; common, \$4.50 to \$5.15; cows, \$3 to \$5; canners, \$2 to \$2.50 per cwt.

Milkers and Springers.—Receipts of milkers and springers were moderately large. Prices were firm, at \$35 to \$75 each. There were not many cows brought the latter price, and the bulk sold at \$40 to \$55 and \$60. The cows that sold up to \$75 were large-framed Shorthorn grades, of good milking qualities, or pure-bred Holsteins.

Veal Calves.—Receipts larger, but many of inferior quality are being marketed, the high prices having had the effect of bringing in everything in the shape of a calf. This caused the market to be very easy for the inferior class, but prime, new-milk-fed calves sell as high as ever, at \$8 to \$8.25 per cwt.; medium to good, \$5 to \$7, and common, inferior veals, at \$3.50 to \$4.50.

Sheep and Lambs.—Ewes, \$4.75 to \$5.25; culs and rams, \$3.50 to \$4.25; lambs, \$7 to \$8 per cwt., and picked lots of ewes and wethers, \$8.25 to \$8.50 to the retail butchers.

Hogs.—Receipts were not large enough to supply the demand, and prices have been very firm. Hogs are selling at \$8.90 for selects, fed and watered at the market, and \$8.65, f. o. b. cars at country points.

Horses.—The market for horses has not been as good in years, at least all the different sale stables so report. At the Union Horse Exchange, Manager Smith reported a lot of good sales, having sold upwards of 200 horses. One lot of 17 horses, averaging 1,700 lbs. each, at \$265 per head; two carloads of 36 horses, 1,700 lbs. each, at \$225 per head, or a total of \$8,100. The balance of sales ranged as follows: Drafters, \$180 to \$220; general-purpose, \$160 to \$200; expressers or wagon horses, \$140 to \$210; drivers, \$100 to \$200; serviceably sound, \$30 to \$90 each. One pair of extra-fine carriage horses sold at \$640.

#### BREADSTUFFS.

Wheat.—No. 2 white, \$1.08 to \$1.09, outside; No. 2 mixed, \$1.07 to \$1.08. Manitoba, No. 1 northern, \$1.12; No. 2 northern, \$1.10; track, lake ports. Rye—67c. to 68c., outside. Peas—81c., outside. Buckwheat—No. 2, 53c. to 54c., outside. Barley—No. 2, 56c.; No. 3X, 51c. to 55c.; No. 3, 49c., outside. Oats—No. 2 white, 41c. to 42c., on track, Toronto. Corn—American No. 2 yellow, 74c.; new No. 3 yellow, 71c. to 71c. Canadian corn, 66c. to 67c. Flour—90 per cent. Ontario patents, for export, \$4.20 to \$4.25, in buyers' sacks, outside. Manitoba flour—First patents, \$5.70, second patents, \$5.20; strong bakers', \$5.

#### HAY AND MILLFEED.

Hay.—Baled, in car lots, on track at Toronto, is firmer, at \$14.50 to \$15.50 for No. 1, and \$13 to \$14 per ton for No. 2. Some of the dealers are asking as high as \$16.

Straw.—Baled, in car lots, on track, Toronto, \$7.50 to \$8 per ton.

Bran.—Car lots, on track, Toronto, \$23 per ton.

Shorts.—Car lots, on track, Toronto, \$25 per ton.

#### COUNTRY PRODUCE.

Butter.—The butter market remains steady, especially for the better grades, separator dairy and creamery. Creamery pound rolls, 28c. to 29c.; creamery solids, 26c. to 27c.; separator dairy, 23c. to 24c.; store lots, 20c. to 21c.

Eggs.—Fresh laid eggs are none too plentiful, and sell at 32c. to 34c., cold storage, 27c.

Cheese.—Prices firm, but unchanged, at 13c. for large, and 13c. for twins.

Potatoes.—Receipts continue plentiful and prices unchanged, at 45c. to 50c. per bag, the bulk selling at about 48c., for car lots, on track, Toronto.

Beans.—The market is reported firm, at \$2 to \$2.10 for primes, and \$2.15 to \$2.20 for hand-picked.

Honey.—Trade is quiet; prices unchanged, at 10c. for strained and \$2.50 to \$3 per dozen for combs, in sections.

Poultry.—Receipts light. Prices firmer. Dressed turkeys, 18c. to 22c.; geese, 18c.; ducks, 18c. to 20c.; chickens, 18c.; fowl, 14c. per lb.

#### SEEDS.

The seed situation is unchanged. Dealers report a lot of seed, both red clover and alsike, in country dealers' and farmers' hands. There is a large amount of this seed that contains fowl seeds that are hard to clean out; in fact, it cannot be done without taking a good percentage of the clover with the weed seeds, which entails a heavy loss. Nearly all the wholesale men have obtained their supply of seed ready for the spring trade. If they bought more, they would have to buy it at prices that would allow them to either hold over or export. Farmers are not inclined to sell at such prices. Wholesale dealers are loth to quote prices at all until they find out what they can do with it.

#### HIDES AND WOOL.

E. T. Carter & Co., 85 East Front street, have been paying the following prices: No. 1 inspected steers and cows, 12c.; No. 2 inspected steers and cows, 11c.; No. 3 inspected steers, cows and bulls, 10c.; country hides, 9c. to 9c.; calf skins, 11c. to 13c.; horse hides, No. 1, \$2.75; horse hair, per lb., 32c.; tallow, per lb., 5c. to 6c.; sheep skins, 90c. to \$1 each. Wool and raw-fur prices given on request.

#### FRUITS AND VEGETABLES.

Apples, the bulk of which are seconds and worse, are very plentiful, and cheaper, at \$1.50 to \$2, and \$2.50. No. 1 Spies are easy, at \$3 per barrel; onions, \$1.10 to \$1.15 per bag; carrots, 40c. to 50c. per bag; parsnips, bag, 65c. to 75c.; beets, bag, 55c. to 65c.; cabbage, per barrel, \$1.25 to \$1.50; turnips, \$6 to \$6.50 per ton.

### Montreal.

Live Stock.—Live stock is costing high prices all round in the country, but the weather has not been favorable to a large trade, in addition to which is the Lenten season, so that prices last week varied but little. Quite a few Manitoba domestic cattle were on the market, the quality not being extra. Choice Ontario steers sold at 6c. to 6c. per lb., fine being 6c., good 5c. to 6c., medium 4c. to 5c., and common being as low as about 3c. per lb. Lambs were again selling at around 6c. to 7c. per lb., and sheep at 4c. to 5c. per lb., demand being very good, but supplies being light. Calves sold all the way from \$8 to \$12 each, according to quality. There was a good deal of interest in the market for hogs, and the tone was strong. Selected hogs sold at 9c. to 9c. per lb., weighed off cars, Montreal; offerings not large.

Horses.—The supply of horses was light, demand not particularly active. It was expected that there would be a demand from the West again shortly. Meantime, the market held as follows: Heavy draft horses, weighing from 1,500 to 1,700 lbs., \$225 to \$300 each; light draft, 1,400 to 1,500 lbs., \$180 to \$240 each; small horses, 1,000 to 1,100 lbs., \$100 to \$150 each; old, broken-down animals, \$75 to \$100 each, and choicest saddle and carriage animals, \$350 to \$500 each.

Dressed Hogs and Provisions.—In sympathy with the higher prices actually being paid for hogs, and the demands made for later delivery at even higher prices, dressed hogs sold last week at an advance of 4c. and more, at 12c. to 13c. for fresh-killed, abattoir-dressed stock. Owing to the high prices, many consumers have dropped out of the race, so that trade was not active in any line of hog products. Prices firm to steady all round. Compound lard, 11c. to 13c.; pure lard, 16c. to 17c.

Potatoes.—The market for potatoes showed some easiness, owing, it is said, to surplus stock here. However that may be, Green Mountains were being of-

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ferred at 50c. per 90 lbs., carloads, track, Montreal, and being turned over at 52c. to 55c., track. Some merchants were only prepared to pay 45c., track, to shippers, and expect to get all they want at that figure.

Apples.—There is little or no change, prices ranging from \$2 to \$2.50 per barrel, at auction, for No. 2 stock, and from \$1.25 to \$1.85 for No. 3 stock. The tone is firm, and demand fair.

Eggs.—Market attracting considerable attention, as usual at this season, prices gradually easing off as supplies become more liberal. Dealers last week were quoting 30c. to 32c. per dozen, for fresh-laid eggs. Holders of old stock do not appear to have modified their demands to any extent, 28c. being still quoted for selects, and 23c. to 24c. for No. 1 candled. A sale of held stock, not candled, was made at 22c., the seller guaranteeing two dozen loss to the case. On Monday, 28th, mild weather eased prices to 30c. for strictly fresh, wholesale.

Butter.—Market steady. Demand not active, but fairly good, and the situation is said to be much better than a year ago; 24c. to 26c. was said to cover the range for best fall and winter makes of creamery, the winter makes, naturally, being the cheaper. Dairy butter was 19c. to 21c. per lb. Demand fairly active.

Cheese.—Demand light, and 12c. to 12c. per lb. would cover all prices and best qualities. Holders asked 12c. at the beginning of the present week.

Grain.—Oats steady. No. 2 Canadian Western, in car lots, store, 45c. to 46c.; No. 3, 44c. to 45c.; No. 2 Ontario white, 43c. to 44c.; No. 3 a cent less, and No. 4 still a cent less. No. 2 barley, 59c. to 60c.; No. 3, 58c.; No. 4, 57c.; feed barley, 51c.

Flour.—Market unchanged, at \$5.80 per barrel, in bags, for Manitoba first patents; \$5.30 for seconds, and \$5.10 for strong bakers. Ontario winter wheat patents, \$5.50 to \$5.60 per barrel, and straight rollers, \$5.10 to \$5.25.

Feed.—Feed market steady and strong. Manitoba bran, \$22 per ton, in bags, and shorts, \$23. Ontario bran, \$22.50 to \$23, middlings, \$23.50 to \$24; pure grain meal, \$31 to \$33, and mixed meal, \$27 to \$29.

Hay.—Market firm; \$14.50 to \$15 being paid for No. 1 baled hay, per ton, cars, Montreal, No. 2 extra, \$13.50 to \$14; No. 2, \$12.50 to \$13; clover mixed, \$11.50 to \$12; clover, \$10.50 to \$11.50.

Seeds.—Prices steady, at \$1.75 to \$7 per 100 lbs., f. o. b., Montreal, for timothy; \$18 to \$20 for red clover, and \$14 to \$17 for alsike.

Hides.—Dealers paid 9c., 10c and 11c. per lb., for beef hides; 12c. and 14c. for calf skins; \$1 each for sheep skins; \$1.75 and \$2.25 each for horse hides; 1c. to 1c. per lb. for rough tallow, and 5c. to 6c. per lb. for rendered.

### Chicago.

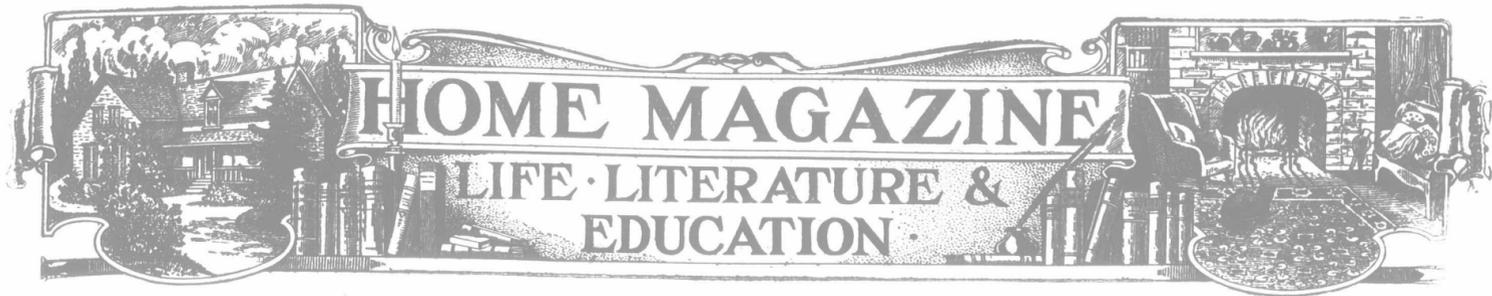
Cattle.—Steers, \$5.25 to \$8.10; cows, \$4 to \$5.75; heifers, \$4 to \$6; bulls, \$1.50 to \$5.50; calves, \$3 to \$3.10; stockers and feeders, \$4.25 to \$5.80.

Hogs.—Choice heavy, \$9.60 to \$9.65; butchers', \$9.55 to \$9.65; light mixed, \$9.40 to \$9.50; choice light, \$9.50 to \$9.55; packing, \$9.55 to \$9.65; pigs, \$9 to \$9.40; bulk of sales, \$9.50 to \$9.60.

Sheep and Lambs.—Sheep, \$6.15 to \$7.15; lambs, \$7.50 to \$9.35; yearlings, \$7.25 to \$8.50.

(For Buffalo and British cattle markets, see page 373.)

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Among the straws which show which way the wind is blowing in Canada, commercially, are the two following news items: (1) A company has been formed to build docks at Victoria, B. C., at a cost of \$4,000,000; (2) Arrangements have been made for a monthly steamship service from Montreal, Halifax and St. John, to Australia and New Zealand.

The political situation in Great Britain at present stands at a sort of deadlock. The Nationalists and Laborites have balked when it came to throwing in their forces unreservedly with the Government, and the Government is not strong enough to proceed very far without them. The Laborites, it appears, will not join with any party that proposes to stop short of doing away with the House of Lords; the Nationalists, under the control of Mr. Redmond, stand aloof, for some reason that is not yet sufficiently clear. In the meantime, Mr. Winston Churchill has announced that the Government will stand or fall by the Veto Bill, and there are rumors of another election in the near future.

The interest in comets is for the time being transferred from Halley's to the daylight comet, first reported as being seen at Johannesburg, S. Africa, on the 21st of January. At London, Ont., the February evenings have generally been too hazy or cloudy for observation. Good views, however, were had of it on the 3rd and 10th of February by those who looked "between the gloamin' and the mirk." The head set very shortly after the sun, but the wide, thin tail was seen up to 7.30 p. m. The newspapers report that the Cree Indians were greatly alarmed by its appearance, and that Chief White Owl declared it a portent of disaster to the tribe. The current name of this comet, "Drake's Comet," is said to be due to a telephonic mishearing of the words, "great comet." Halley's comet is due to pass between the sun and the earth on the 19th of May, and there is some half-serious speculation as to what it may do to the earth with its tail on that date. If its tail reaches us at all, we may feel it, but certainly we shall not be able to see it.

In the Home Mission Pioneer, Dr. H. J. Hunter reviews the progress made in nationalizing and, we might say, civilizing the Ruthenian settlements in the Northwest. Incidentally, the movement for the improvement of English spelling receives strong support in the review. "The greatest difficulty," he says, "with all the foreigners is difference in language. The greatest hindrance to the acquirement of English is our awful method of spelling. There are thousands of the older immigrants who would already have a fair knowledge of English if it were not for this unfortunate obstacle. The Russians, Ruthenians, Poles and Scandinavians have all taken up and completed spelling reform in their several languages. Their children do not need to learn to spell. All that they require is to learn the alphabet, and get a little practice in its use, when they can spell any word in their language. I have met case after case of immigrant who started to study English, but gave it up in despair, simply on account of its spelling."

The Presbyterian Witness editorially comments upon Dr. Hunter's report, and adds that a similar situation exists in Quebec, where the English and French languages are striving for pre-eminence. "Our grand old Saxon tongue is placed at a disadvantage beside the French, in which, though there are silent and superfluous letters, yet there is system in the irregularity which we do not find in English."

"American Medicine" (New York) states that the use of the cinematograph for the teaching of surgery, will soon become an accomplished fact. In Norwalk, Conn., one has been installed in one of the schools for the purpose of teaching about foreign countries, the habits of animals, etc. It is to be hoped that such use will speedily put to rout the vulgarities of the ordinary moving-picture "show" and cheap vaudeville uses, or, rather, abuses, with which the moving-picture machine, with all its possibilities for good, has been so long identified.

Hatters' Union for seeking to cripple and destroy the business of the former. The goods of the firm were placed on the "unfair list," and its sales practically stopped, even to the Pacific coast. It was also held that interstate commerce was interfered with, and the presiding judge, under the Sherman Anti-Trust Act, trebled the damages. Appeal was taken against this, however.

The United States is spending over \$32,000,000 per year in rural-mail delivery, but were a parcel-post system inaugurated, at, say, one cent per pound on merchandise, books, magazines, etc., it is estimated that, instead of a deficiency of \$18,000,000, the Post-office Department might show a profit. At present the wagons carried, on an average, only about 25 pounds, but could convey 600 or 700 pounds. What is it that stands in the way of this great reform and service of the people? Why, the monopolistic express companies.

danger of "sinking" into duplicates of these "rustics"; they are our equals in most things, but lack our opportunities for improvement. I don't quite understand what J. C. W. means by "educated people of caste," for of castes or classes there are, broadly, three: upper, middle, and lower, each class having several strata, and each stratum hundreds of variations. There are educated people in the lower class, and ignoramuses in the "upper ten." We in Ontario are tending towards an aristocracy (if I may call it so) of wealth; surely we have no right to condemn an aristocracy of birth or blood, which has produced many of the greatest men the world has seen. Apart from the above, I agree with J. C. W., that the farmer should take more interest in education. Some are doing so, and setting a good example by sending their children to High School before settling them down on the farm. In my own opinion, the greatest evil of our school system is in the teachers, or, rather, the lack of good ones. I don't blame them because they make teaching a stepping-stone to some more lucrative profession, as the best of them do. If their salaries more nearly approached those paid in other professions, no doubt many good men would stay with the teaching. But, in securing a teacher, the farmer always wants the cheapest, forgetting the sayings, "cheap and nasty," and "the best is cheapest." The Macdonald-school idea is one that appeals to me, but that seems to touch the farmer's pocket too closely, too. But, so far, it seems the only way in which our rural population can receive as good an education as the urban. And if it costs a few dollars more than the old system, surely the farmer reaps the benefit. "FENBOIS."

**The Windrow.**

A new book, "The Roughrider and Other Poems," by Bliss Carman, is on the market.

Arthur Stringer has gone to Bermuda to complete a novel of Canadian life in the far north.

An American woman, Miss Anna Barber, who is at present connected with a London firm engaged in the manufacture of heating apparatus, has been selected to perfect the plans for the installation of a modern heating system in the palace of the Sultan of Turkey.

At the first performance of "Chanticleer," or "Chanticleer," which was puts on the boards in Paris before the floods had abated, the receipts reached the figure of £2,800. In this play the actors take the part of various barnyard fowl and animals, and a philosophy of life is revealed through their actions and moralizing. The authorship of the play, generally attributed to M. Rostand, is now being contested by Mr. S. Gross, of Chicago, who claims that M. Rostand plagiarized from a play written by him, but never placed on the stage.

The King has presented the skeleton of his famous Derby winner, Persimmon, to the Natural History Museum, South Kensington.

Mr. J. C. Eaton, head of the "T. Eaton Co.," Toronto, has given \$250,000 for a surgical wing in the new General Hospital. The hospital, which will be erected on the upper end of "St. John's Ward," will cost \$2,500,000.



Trillium Grandiflorum.

**Education for Farmers, Again.**

Editor "The Farmer's Advocate": "Comparisons are odious," but sometimes necessary. J. C. W.'s comparison of Ontario farmers with Old Country "rustics" is both odious and unnecessary. If by "rustics" he means the farm laborers, he evidently does not know them, or misrepresents them. For the farm hands and rural population of the Old Country are as well, if not better, educated than the average farmer of Ontario. I have often heard Canadian ladies say of English children, "How nicely they speak and behave." You can draw your own conclusions. So there is no

The proclamation of the constitution in Turkey has thrown open the doors of Palestine to the incoming of Jews from all parts of the world. They are speedily taking advantage of the opportunity, and are buying up and settling tracts in every part of the Holy Land. The Anglo-Palestine Company (Zionist) are doing especially energetic work in assisting the immigration.

Decisions of United States courts indicate that the boycott, as a means of making strikes effective, must be abandoned as illegal. A jury at Hartford, Conn., in the case of a Danbury hat manufacturer, returned a verdict for \$71,000 against the

\$4.10; cows, \$6; bulls, \$3.10; \$5.80; \$6 to \$9.65; light mixed, \$9.50 to \$9.60; pigs, \$9 to \$9.60; \$6.15 to \$5; yearlings.

the markets.

Mrs. Ella Flagg Young, Superintendent of the Chicago school system, draws a salary of \$10,000 a year. She was born in Buffalo, but took her degree of Ph. D. from the University of Chicago. She has been a teacher since 1862.

In Japan, as stated by Baron Kikuchi, formerly Minister of Education for the little Oriental kingdom, regular lessons are given in the schools on such subjects as morals, cleanliness, honesty, regularity, frugality, charity, gratitude, friendship, self-help, etc.

Mr. A. J. Roberts, Australia, is applying the gyroscope to the aeroplane, to induce the necessary balance. The first gyroscope railway in America is now being built by the C. P. R., to circle Okanagan Lake, B. C.

**Best Native Plants for Cultivation.**

"Some of the Best Native Plants for Cultivation" is the title of a very interesting and suggestive article by Prof. W. T. Macoun, which first appeared in *The Ottawa Naturalist*, and has been subsequently reprinted in pamphlet form.

"There are in Canada about 4,000 species of flowering plants, and 76 species of ferns," begins the Professor, and then he proceeds to give very good reasons why a selection should be made from these when providing for home decoration, instead of sending away so continually, as is ordinarily done, for plants utterly foreign to our climate, and so harder to rear, and less likely to look "at home" than our native species.

"There is no difference among lovers of plants," he notes, "as to the beauty of the Canadian flora. The great variety, the charming forms, the lovely colors, and the blending of the whole when under natural conditions, give us innumerable and varied pictures of which we may well feel proud. There is a growing sentiment in Canada in favor of Canadian things. We are becoming more proud of our country every year. We are looking for an individuality which will stand for Canada, and one of the best ways we can impress our individuality . . . is to make Canadian trees, shrubs and herbaceous plants a prominent feature of our landscape."

Among native trees, he recommends Hard Maple, the American Elm, the Red Oak, the Silver and Red Maples (for wet ground), the Basswood, Beech, Yellow Birch, Canoe Birch, Mountain Ash, White Ash, Hickory, Scarlet Haw, Honey Locust, and Tulip Tree and Sassafras (for Western Ontario). Coming to evergreens, he strongly favors our own. "The Scotch Pine cannot be compared in beauty with our White Pine, the most beautiful pine that grows. . . . The Austrian Pine is a fine tree, but it also has a stiffer outline than our Red Pine. . . . The Norway Spruce is a beautiful tree when young, but for permanent effect it cannot be compared with our native White Spruce."

"The Hemlock," he notes, "is a very graceful tree, and while a rather slow grower, there is no other tree which does well in Eastern Canada that looks anything like it."

Among native shrubs, which are especially good, he mentions High-bush Cranberry, some of the wild roses, Flowering Dogwood (Southwestern Ontario), the Amelanchiers and Sumach, with, for hedges, the Cedar, the White Pine, Moosewood, Scarlet Hawthorn, and, when a hedge for holding back stock is required, the Honey Locust.

Native vines give the choice of Virginian Creeper, Wild Clematis, Climbing Bittersweet, and the Wild Grape. In regard to the Virginian Creeper, he says: "There is a self-fastening variety, brought into notice by the Experimental Farm, Ottawa, which is now becoming quite common about Ottawa. This does not need support, but climbs walls by means of its discs and tendrils, almost as well as *Ampelopsis Veitchii* (Boston Ivy)."

"The Climbing Bittersweet should

be more planted than it is, as it has a very clean, attractive foliage, and the orange and scarlet fruit in autumn and early winter lengthens its season of usefulness very much."

In regard to our herbaceous plants: "It has often been remarked, especially by those coming from other countries, how few species of Canadian wildflowers are found growing along the roadsides or borders of cultivated fields in Eastern Ontario. If we take out the Goldenrods and Asters, there are few prominent plants left. But one might say: 'There is the Canada Thistle; that, surely, is common enough!' But the Canada thistle is a European plant, and we should protest against its being called under that name. Furthermore, practically all our bad weeds are European plants. The reason why so few attractive Canadian wildflowers are found along our road-

(often confused with Bergamot), the Cardinal Flower, *Lilium superbum*, native Orchids, Violets, Anemone, *Dicentra* (Dutchman's Breeches and "Ladies and Gentlemen"), Hepatica, Bloodroot, Asters, Goldenrod. A number of the ferns, also, respond readily to cultivation.

Prof. Macoun, it will be remembered, is Horticulturist and Curator of the Arboretum and Botanic Garden at the Central Experimental Farm, Ottawa. He is one of our Canadian authorities on plant-life, and his recommendations should commend themselves to all who are interested in gardens and in our native flora.

How far that little candle throws its beams!

So shines a good deed in a naughty world.

—Shakespeare.



Canoe Birch.

With young Red Pine trees in foreground.

**Hope's Quiet Hour.**

**Some Questions Facing Our Rural Population.**

By Hope Lawrence.

(Continued from page 313.)

I know a city woman who, when she goes into the out-of-the-way districts where there is many a lonely farmhouse, has a large box fitted to be placed under the seat of her automobile or carriage, which she fills with reading matter and inexpensive toys for the children; and many a lonely woman's and child's face brightens as she leaves something in their hands. And when she has an empty seat in her touring car, and overtakes some weary mortal trudging along the highway, she gives him a lift, in a true, democratic, social spirit, thus im-

parting pleasure to many who would never have an opportunity to ride in an automobile. . . .

Many country ministers are groping for methods to rouse their parishes to activity. I heard of one successful clergyman who was uniting all the members of his parish in work social and spiritual; by an adaptation of Dr. Hale's "ten-times-one" plan. He chose ten of the most progressive, adaptable, and yet spiritually-minded members of his church (five men and five women.) To these he apportioned out the different lines of work in the parish, asking them to choose ten workers to work under each of them, and to be themselves responsible for the work of these ten persons. Sometimes the minister met his ten assistants in conference as to methods and means; sometimes he met one branch of ten and discussed their kind of work, sometimes he met individuals alone in personal talk. This church was a living, active, spiritual power in the community—meeting all questions of labor, Christian socialism, poverty, intemperance. A sick church is not a working church. Spiritual life shows itself in work. The life of a church does not consist only in beautiful services and fine sermons. The work of each church should depend on the needs of the community in which it is located. Let every church study the needs of the surrounding community, both social and spiritual.

One country minister was complaining to me recently that all the people in his parish were so well-to-do that there was no work to interest his parish societies. I asked him in regard to the following three points: 1.—Was the poorhouse in his neighborhood? 2.—Was there no intemperance in the town? 3.—Were all the poor mothers in his parish able to attend church regularly? How many tired mothers and farmers' wives could have the spiritual refreshment their lives need, if only every church would have a room set apart where babies and young children could be cared for during the hours of service? Would this not be pleasant volunteer work for King's Daughters, Christian Endeavor members, or for many an old maid whose heart yearns for what life has denied her? And by each society, or a number of members, dividing the Sundays of the year among them, no one who could attend would absent herself from church for many Sundays in succession.

2nd. Intemperance is a harder problem to meet in the country than in the city, where there are many societies and means to call to one's aid. Therefore, the country churches should take active measures to stamp it out. It was forcibly brought to my notice in the following way: The woman who brought me eggs inquired one day if I had "any old baby clothes," and then I learned the following story: She and her husband lived in an old farmhouse four or five miles away in the country, and the nearest house was one mile from her. Her husband had periodic attacks of insanity in which he threatened her life with any instrument at hand. At such times she fled to the woods for hours, or to her friends for days. He belonged to a well-to-do family, and felt above work. She supported them both by selling eggs to the summer people. She was devoted to him and would not have him taken away to an asylum, and the neighbors were powerless to persuade her to take any means to protect her life. They had recently rented half their old farmhouse to another family who had lost their own farm through the intemperance of the father. This family consisted of father, mother, five children (another being expected, for whom she wished the baby clothes). The father, although he had formerly owned a large farm, was going out to work wherever he could get a job; but if his pay was given to him personally, he went immediately to the nearest town to spend it all for drink. . . . No persuasion would induce the mother to complain of her husband and have him committed for drunkenness. With agonizing terror on her face, she answered, "Oh, if I did, he would kill me and the children when he came out. . . . I went to all the officers of the town, overseers of the poor and others, only to hear: 'That story is absolutely true, but there is nothing to be done. Unless she will complain, or something actually happens, we cannot convict him.'"

From the three country churches, I only

heard in turn, "They do not belong to my church." In the cities there are societies, but what is to cope with such questions as these if the churches do not.

I asked another question of the minister who complained to me that there was not work for the societies of his church to do. Is there no poorhouse in your neighborhood? "Why, yes," he replied, "there is one with twenty inmates." I asked him, "Do these inmates ever get to church, or are there ever any services at the poorhouse? Could not members of these societies visit and sing to them, arrange for festivities or services for the inmates, at Thanksgiving, Christmas, Easter, and on other occasions?"

My attention was drawn to the poorhouse of one country place in a very forcible way. I was obliged, on account of ill health, to spend the Christmas season in the country away from home and friends. . . . I was very lonely, and a few days before Christmas, driving past the Poor Farm, I thought that there might be some souls lonelier than I was, not even having friends at a distance, and that I might be able to bring them some Christmas cheer. I ascertained at the post office the names of the inmates, and spent my Christmas eve preparing a few gifts for them, and the following afternoon drove out to the Poor Farm. . . . Most of the inmates had no idea that it was Christmas, as no notice had been taken of the day in any way. How their faces lighted up with the simple bags of candy, cards and little gifts which I gave to each one! I could not see a single calendar in the entire house, and the dreariness was something appalling. This was the poorhouse for quite an extent of country, and as I drove home I could count up seventeen churches of all denominations within five miles, and no one in any of these churches had thought of these poor people. . . . We remember the unfortunate who are in asylums, prisons and hospitals; but how about those in county poorhouses, many of them there through no personal fault. . . . May there not be much work for the country church at their very doors, which, as yet, they have not undertaken? I know many invalid members of the Shut-in Society who complain that they feel intense loneliness, and also have lack of reading matter in the country. If the younger members of these country churches would only hunt up these sick and shut-in members and minister to them; bring them books from the library, sing to them, and keep them in touch with the church, from whose services they are often shut out by some lifelong infirmity!

The best Christian is he who most reminds the people with whom he lives of the Lord Jesus Christ. He who never reminds anyone of the Lord Jesus Christ, is not a Christian at all. "Inasmuch as ye have done it unto one of the least of these My brethren, ye have done it unto Me."

### The Ingle Nook

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

#### The Woman's Vote, and Other Questions.

It is so long since I visited your interesting corner, I did not have the pleasure of being in the last two "Conferences of the Shades," but, although you did not know it, Katharine was hovering perhaps nearer than you know.

What a busy world this is! We meet and we speak, and we part like "ships that pass in the night," and with this thought comes a train of thoughts and visions of the past, present and future. I see the dark night and the storm, and from an elevated window, see the scattered lights of a city, and then I return to the hearth and the vision extends and grows broader, and I see cities and cities, and homes scattered on the hills and in the valleys, on the prairie and on the sea—for we must not forget some live on the sea. Then I hear the soft,

restful sounds from a guitar, the closing of a book, the clish of the first bite from a juicy apple, then another musical chord from the guitar, then the patter of children's footsteps and merry laughter and the evening story, and the sweet confidences between parents and children. O, what might home be where love, knowledge, truth and purity reign. Then comes the picture of an ill-kept home, where the lamp is dim from neglect, and everything else in harmony, where the babies cry themselves to sleep, and where older ones learn to break home ties because there are no real love and sweet, homely joys to bind those ties. Then, again, do I see a home of culture and comfort, which might be a source of great power for good, but slowly, slowly, surely and steadily does time work the change. The light and one-time queen of home gets overmuch interested in philanthropic, social or political duties, and

the heart hunger of the husband and children (big and little) seeks its sympathy elsewhere, or else remains unsatisfied, and they go out to meet the world so much the poorer. Where, in all the literature of the world, can we find a more beautiful picture of woman than Solomon gives. "She stretcheth out her hand to the poor; yes, she reacheth forth her hands to the needy." But we see her pictured in her home, not leaving it to the care of others without her oversight. She is skilled in the arts of homemaking, and knows how to govern her household and treat her maidens.

Then, again, do I see the lights of the cities, and feel the throb of the multitudes of human hearts, some full of delight and joy, others aching and breaking in trouble, loneliness, and despair. It is the human heart's thirst and cry for God, for the Love which we cannot comprehend. Has not woman her share

in the work of smoothing life's rough pathway through and in this Love? O, mothers and daughters and sisters, you say, "How can we better the world? We are so bound by fetters (?) We cannot vote, and we cannot make laws, and, poor little beings, we are so trampled on (?). We have no opportunity of doing anything." Poo-poo! Is this so? Of course not. Let us look back hundreds of years and find the reason of such ill conditions that woman finds it necessary to ask for "rights." What is the cause of these conditions if not that woman has not made the proper use of rights and privileges already given her so abundantly by her Creator. It is when woman deviates from the highest conception of the feminine, that conditions become so that she finds it necessary to go out reforming, demanding rights, etc. If for two hundred years all women lived true and pure lives, and followed occupations for which they were intended, social conditions would not be so appalling as at the present time.

So, then, it is surely very unbecoming for us to demand other duties, when we have so failed in our appointed duties as mothers, wives, sisters, and friends.

Let all the women of the world fit themselves into the places they were made for; let them cease this public speaking (Katharine includes herself), and, instead, use their intellects and hands in their own and other homes where needed. If this were done, would the change be for better or worse? There are thousands of homes needing help in the kitchen, in the dining- and sewing-rooms. There are millions of children crying for the sympathy, care and training which only woman can give. Is this man's work? No. Is not woman honored that such work is hers, and yet, alas! we find many of our clever and intellectual girls and women, who are full of aims to do good and noble work in the world, blindly leave this most honorable and health-giving occupation, and ask for and take on themselves higher (?) and broader (?) duties. Occupations are chosen which lead away from domestic life, and gradually she enters public life, which has a tendency to harden and sharpen the lines in the face and manner, and to deaden the sweet, domestic graces. Shall we, my sisters, sell our birthright for a mess of pottage? Shall we not rather be in reality man's helper and companion, not his rival in business and politics? Let the energy now expended at work for which she is needed, let the highest thought and intelligence be used, and the beautiful characters portrayed in the Bible, in the writings of Shakespeare and Tennyson, be kept before the mind as ideal women, and this world could be a happier place. Then would conditions be so that she would not imagine her voice needed in the lawmaking of the nation; instead, woman would be fulfilling her mission, and we should find our high-born and cultured ladies of the land, after completing their education, not knocking at the bar for admittance, nor looking with longing eyes towards entering the various professions which belong to men, but she should be found entering homes, doing the work of a woman in the home. Why should her social position be lowered because of that work. Let her be skilled and master of her work, and should she not receive double honor and esteem? Do we admire a man of feminine manner? No, no; and equally undesirable is a mannish woman. Let us look at matters fairly, as they are. The most wonderful and perfectly-working machine ever invented, will not do its work properly if one little part is placed where something else ought to be. Let the human heart be linked in and abide in Him who is Love, and all the life naturally falls into perfect harmony; so social and political conditions can never be happy until woman retires into and is happy in her true sphere, and in that sphere is true to her God and her womanhood, and so doing she could then duly appreciate the greatness and chivalry of noble and true manhood.

KATHARINE BLINKBONNY.

#### School Lunches.

Dear Dame Durden and Chatterers,—I have read Aunt Nan's letter, and thought I would like to write and tell her how I used to do about "lunches" when I went to school, and perhaps it may be an idea for someone else, too.

In our school, as in most country



The American Elm.

Photo by J. J. Parker, Rock Island, Que.

schools, there was a large box stove, with a fairly flat top, so that a tin cup or dish could be easily set on it, and it would heat in a few minutes.

I hated cold lunches so, mother used to prepare tea, coffee, or cocoa, all ready for reheating. This was put in a bottle, and we were provided with a tin cup with our name printed on it. This we kept in our desk.

Then, when they would have soup at home, a bottle was always put away for the little folk to take to school next day, and it was also reheated in the "tin cup." After the soup was finished, we would heat a little water in the cup to wash it out. At other times it was washed in cold water.

Then, some of the girls used to get the boys to whittle them a long, thin stick, with a sharp point. This they would run through a slice of bread and toast it. This did not prove very satisfactory, as you could only toast one side and the butter would melt and run off, and sometimes the stick would start to blaze.

As I was particularly fond of toast, I persuaded mother to get us a small toast rack. As the handles were too short, we got father to make wooden handles, and the toaster was securely fastened to this, then it was taken to school, where it became common property.

After this, almost all the scholars used to bring slices of plain bread and a little bit of butter, and, unless you have tried it, you can't imagine how that fresh, crisp toast was enjoyed, especially when we had a cup of hot cocoa with it.

Perhaps you will say your children are too small to do this, but at our school the older girls would always do it for the little ones.

I have a little girl of my own going to school now, and she has had something hot every day this winter.

Hoping this will be an idea for some whose children have a long walk to school, I will leave the cozy corner, as I have made quite a lengthy call.

AUNT MARJORIE.

Wellington Co., Ont.

#### A Letter from Quebec.

Dear Dame Durden and Ingle Nook Friends,—I have often longed to write to you, and, indeed, have written several times, but upon rereading, have consigned my letters to the flames; but here goes this time. What has become of Jack's Wife? I would like to thank her for her recipe on "how to prepare milk for bottle-fed babies." It is now almost

a year ago since that subject came up for discussion. Our little boy, then five months old, was suffering from indigestion. I adopted her recipe, and it worked like a charm. He is now fourteen months old, and is running about, a healthy, happy little lad. Many thanks, Jack's Wife. I agree with Aunt Nan, and wish we had some badge of distinction, for many interesting and instructive chats we miss by not recognizing our Ingle Nook friends.

Now, I must not stay too long for the first time. Wishing all a very happy and prosperous year.

HUNTINGDON.

Quebec.

Jack's Wife has gone away to Arizona to live, but she still takes "The Farmer's Advocate." We shall hope for a letter from her soon.

#### Another Quebecite.

Dear Dame Durden,—I am a reader of "The Farmer's Advocate" and enjoy the Home Magazine part of it very much, and see many helpful suggestions for busy mothers. As I am a farmer's wife, and have little ones, I try every plan to make my work as easy as possible. I save all our old white worn-out clothing. If I don't need it just then, I put it away and keep it till I do. If we have hard colds, or if any of the family has a bad discharge from the nose, we take a square of the cloth and use it in place of a handkerchief, then burn it. If there is a baby in the house, and you are going away from home and have to take it, just take a large piece of cloth and place inside its napkin, and if it is soiled, burn it.

When we have baked beans, I make sandwiches of them for school lunch. Potato salad also makes good sandwiches.

ANOTHER BUSY MOTHER.

Beauharnois, Que.

#### Old Tapestry Carpet.

Dear Dame Durden,—Would you kindly give the directions how to prepare a tapestry carpet, to make into a linoleum. It was given in "The Farmer's Advocate" some time ago, but the paper has been mislaid. Thanking you in advance.

A CONSTANT READER.

Tack the carpet down with the wrong side, which is now to be the right side, upward. Brush paste or thin glue all over the surface to act as a filler. Let dry, then apply two coats of paint.

#### Flower Queries—Nut Cake.

Dear Dame Durden,—I have been an interested reader of "The Farmer's Advocate" for fifteen years, and we could hardly be without it now in our home. I have never written before to the Ingle Nook, but have been learning all I could from it in every edition.

I would like if someone would tell me what to do with Hyacinth bulbs after flowering; also how to grow and water a Christmas cactus.

I will close by sending a recipe for nut cake.

Nut Cake.—Four eggs, 1½ cups sugar, 1 cup butter, 1½ cups milk, ½ cup walnuts, 4 teaspoons baking powder, 3 cups flour. Beat together butter and sugar. Mix well, or beat after flour is added.

I would like if someone would print in "The Farmer's Advocate" a good recipe for mustard pickles. Some of mine spoiled this year. I shall be glad to help anyone at any time I can.

JOLLY WIFE.

Huron Co., Ont.

In answer to this question we quote you from "Bulb Culture for the Amateur," by W. T. Macoun and R. B. Whyte. The same bulbs will not force the second time with any satisfaction. An exception, however, must be made for Freesia. . . . Most hardy bulbs need not, however, be thrown away, if one has a garden. If the bulbs are ripened off gradually in the pots after forcing, by discontinuing watering and putting them where they will dry slowly, they may be planted in the autumn, and, although the following year there will be little or no bloom, the year after will usually bloom.

. . . Roman Hyacinths, Chinese Sacred Lily, and Paper-white Narcissus, are tender bulbs, and will winter-kill if planted outside; hence these should be thrown away after forcing."

As you no doubt refer to hyacinths which have been "forced," or made to bloom during the winter, the above quotation probably answers your question.

In regard to the cactus, Baily says: "For potting soil, use one-half good fibrous loam and one-half very old lime rubbish, secured from some old torn-down brick building, taking care to sift from it the fine, dusty particles, to ensure material of perfect drainage. To this may be added good clean sand. . . . When potting, use a rather large pot, fill it one-third with rough lumps of coke or other such material, on the top of which place a liberal supply of broken crockery. Now add the soil, putting the coarsest

on top of the crockery. Take care to plant very little below the surface. Be sure that the soil is fairly dry, and carefully abstain from watering for some time; but if the weather is very warm and bright, a very light syringing may be given once each week. If the pots are plunged in open ground, this light daily syringing will be sufficient until the plants shows sign of growth."

Having thus started the cactus, increase the supply of water, and for the winter place in a good light. As the cactus is a native of arid countries, you will note that it needs very little water in summer, corresponding to the dry summers of the South, with more during the winter, or wet season. You will note also that very good drainage is an essential.

#### Whipping Cream.

During the cold weather it is easy to have that most delicious, as well as most nourishing of delicacies,—that is, if one knows how to obtain it. It may be used on pudding, on canned fruit, on pie, and instead of icing for cake, and a spoonful of it placed on top of a cup of tea or coffee (with, of course, a little plain cream in the tea or coffee, as usual), will transform a common, every-day beverage into a drink for the gods.

The following directions for making it have been condensed from a bulletin issued by the Maryland Agricultural Experiment Station:

Either gravity or separator cream, containing at least 20 per cent. butter-fat, should be used. For good results, the cream should be from 12 to 24 hours old, and should be held at as low a temperature as possible (35 to 45 deg. F.) for at least two hours before whipping. (Another authority says cream is sure to whip if taken from milk that has been standing 24 hours in a cool place.) The whipping also should be done in a cool room. Some people find difficulty in whipping pasteurized cream, but it was found at the station that pasteurized cream whips as easily as any if it is thoroughly cooled and held at 35 degrees to 45 degrees F. for at least two hours before whipping.

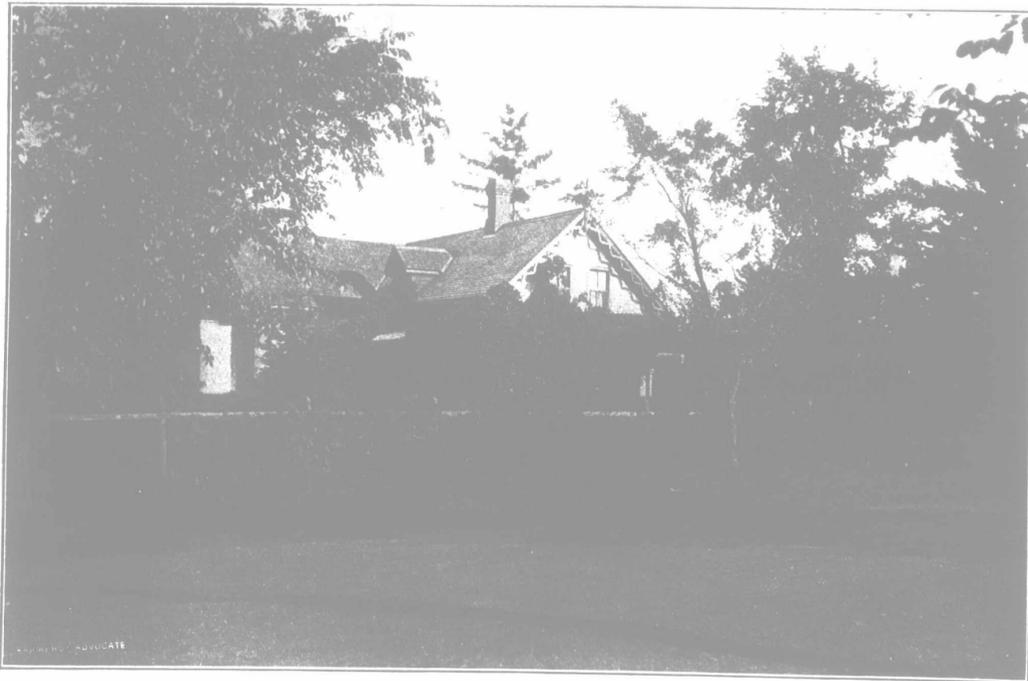
For best results, cream should whip in from 30 to 60 seconds. When a longer time is required, there is danger of some of the butter-fat churning. Experiments were made in adding powdered sugar, powdered milk, salt, caramel, gelatine, junket, and cornstarch, but none of them proved as effective as a low temperature. The addition of one-tenth to three-tenths of commercial lactic acid, however, proved beneficial in hastening the whipping, and making it possible to whip cream which was fresher. The use of white of egg when whipped separately and mixed, produced a lighter foam, but had no effect upon the time required to whip, while the use of cream from cows near the end of their lactation period, whipped with slightly more difficulty than did cream from fresh cows.

Whipped cream will not keep sweet as long as unwhipped cream, hence, just enough should be made to answer the purpose required. The cream-whipper, which may be bought at the hardware store, is the best for speedy work, but a Dover egg-beater answers very well if the cream is put in a round-bottomed bowl. It is, of course, necessary to make the beater revolve as rapidly as possible.

#### Some Egg Dishes.

Baked Eggs with Tomato Sauce.—Make a tomato sauce with canned tomatoes, thickening to taste with flour. Place in an earthen or granite baking dish a layer of the sauce, and place poached eggs over the top. Cover with grated cheese, and put in the oven for two or three minutes.

Creamed Eggs.—2 tablespoons butter, 2 small tablespoons flour, 1 pint milk, 4 eggs, salt and pepper, ½ a small onion, 6 slices toast. Boil the eggs for 20 minutes and lay them in cold water. When cold, remove shells, and cut each egg into 6 pieces. Cut the onion fine. Place the butter in a small frying pan, and, when hot, slowly cook the onion in it until of a light yellow hue. Remove the onion, add the flour, and stir until the paste is smooth and frothy, but not brown. Draw the pan back, add the milk gradually, return to the heat, and when the sauce boils put in salt, pepper,



A Cozy Home.

(Photo by P. T. Shutt.)

"The house is partially covered with the climbing Bittersweet, a native climber, and the grounds are surrounded by the native Arbor Vitae. On the front lawn is a native White Spruce, and the dark trees in the background, to the right, are native White Pine. In front of the grounds are two Elm trees, part of the Elm avenue. The tree on the right, which is in good condition, is the American Elm. The tree on the left, which looks sickly, and which has been injured by winter, is an English Elm. These English Elms are very unsatisfactory in the colder parts of the country, and I think this would be a striking example of the desirability of using American Elms in most places."—W. T. Macoun.

Take care to the surface. Be dry, and care- for some is very warm but syringing may be. If the pots are round, this light sufficient until the with." cactus, increase for the winter. As the cactus is water will note the dry summers during the win- you will note also is an essential.

**Cream.**

er it is easy to as well as most—that is, if one It may be used nit, on pie, and and a spoonful a cup of tea or e, a little plain coffee, as usual), every-day be- the gods. s for making it om a bulletin Agricultural Ex-

ator cream, con- cent. butter-fat, ood results, the 12 to 24 hours at as low a (35 to 45 deg- ars before whip- y says cream is n milk that has a cool place.) l be done in a find difficulty in am, but it was hat pasteurized s any if it is d at 35 degrees least two hours

should whip in When a longer anger of some Experiments powdered sugar, ramel, gelatine. t none of them as a low tion of one- of commercial ed beneficial in and making it ich was fresher. when whipped duced a lighter upon the time e use of cream of their lacta- slightly more rom fresh cows. keep sweet as m, hence, just o answer the cream-whipper. the hardware eddy work, but s very well if ound-bottomed necessary to as rapidly as

ishes. Sauce.—Make ned tomatoes. our. Place in ng dish a layer ched eggs over ed cheese, and or three min- oons butter, 2 pint milk, 4 a small onion, e eggs for 20 n cold water, n and cut each the onion fine. ll frying pan, e the onion in ue. Remove and stir until othy, but not back, add the the heat, and a salt, pepper.

and eggs. When well heated, turn out upon buttered toast and serve at once. A few drops of onion juice may be used instead of the onion.

**Cuban Eggs.**—8 eggs, 1 teaspoon minced onion, 4 tablespoons sausage meat, salt and pepper. Cook meat and onion over a hot fire five minutes. Beat the eggs, and add seasoning. Put the pan on a cooler part of the stove and pour in the eggs. Stir until the eggs become thick and creamy, then pour into a warm dish and serve at once with buttered toast. Pour the eggs over the toast if you like. Enough for six people.

**Omelet with Fish.**—Beat up 3 eggs with a quantity equal in bulk to one egg of the remnants of any cold fish, finely shredded, a pinch of minced parsley, pepper and salt to taste. Pour into a buttered frying pan, and, when cooked, but still creamy on top, fold over and serve at once.

**Eggs a la Maitre d' Hotel.**—Cut some hard-boiled eggs in two, toss them in butter in a pan on the stove until quite hot, add pepper, salt, minced parsley, and a little lemon juice, and serve.

**Hail to Halley.**

Such strange news from Halley's comet Do we hear by latest mail. Scientists have just discovered It has poison in its tail.

Never mind the strife of nations, Sigh no more o'er troubles deep. If we just meet Halley's comet It will put our woes to sleep.

Bargain days will be forgotten, All the mad dogs will be killed, Anguish over civic grafting Will just flutter and be stilled.

Good old Halley! He's a wonder! Just as fun is growing stale, Whish! He sends a lovely comet Which has poison in its tail.

—Courier.

**The Beaver Circle.**

[All children in second part and second books, will write for the Junior Beavers' Department. Those in third and fourth books, also those who have left school, or are in High School, between the ages of 11 and 15, inclusive, will write for Senior Beavers'. Kindly state class at school, or age, if you have left school, in each letter sent to the Beaver Circle.]

**Our Letter Box.**

Dear Puck and Beavers,—I thought I would write a letter to the Beaver Circle. My father has taken "The Farmer's Advocate" for about twenty years. I like reading the Beaver notes as soon as "The Advocate" comes. I often read the letters over and over, and often wish "The Farmer's Advocate" came every day. I am in the Fourth book at school. I passed first out of the Third book at midsummer. I have a Collie dog, kind of a yellow ochre, white around his neck, and a bit of black. His name is Ponto.

We have a pony which is black. His name is Doc. We drive him to the village of Thorndale every once in a while, and on Sunday to Sunday school.

Well, I must not take up too much room in this corner, but before I close I will put a few riddles down.

1. Did you ever hear the story of the two black holes in the ground? Ans.—Well, well.

2. What is greatest neglected vegetable in the world? Ans.—A policeman's beat.

MARGUERITE BELTON (age 9.)

Thorndale, Ont. (Class IV.)

Dear Puck and Beavers,—My father takes "The Farmer's Advocate," and I always like to read the letters to the circle, but have never written before myself.

I wonder if any of the Beavers have read any of the books that I have. I have read five of the Alger books, and I like "Tom the Bootblack" the best, but they always end better than real things do. I like animal stories better, like Earnest Seton Thompson writes. I have read "Biology of a Grizzly," "Krag and Johnny Bear," "Wild Animals I Have Known," and "Lobo, Rag and Vixen,"

and "Mooswa," and "The Call of the Wild."

I go to school, and get most of my books from the school library. I am in the Junior Third class.

We have a horse that will bow, shake hands, laugh, show how he acts when he is angry, stand on a box, and kiss a person, and say "No." My sister trains him.

JACK HORNING (age 9.)

Ancaster, Ont. (Class III.)

Dear Puck and Beavers,—My father takes "The Farmer's Advocate," and I don't know how I could get along without it; I always read the Beaver Circle. This is my first letter to the Circle. We live on a 100-acre farm. I will close with some riddles.

1. What is it that grows in the winter, dies in the summer, and grows with its roots upwards? Ans.—An icicle.

2. As I was going to Saint Ives, I met a man with seven wives; each wife had seven sacks, each sack had seven cats, each cat had seven kits. Kits, cats, sacks, and wives, how many were going to Saint Ives? Ans.—One.

3. Black and white, and red (read) all over. Ans.—A newspaper.

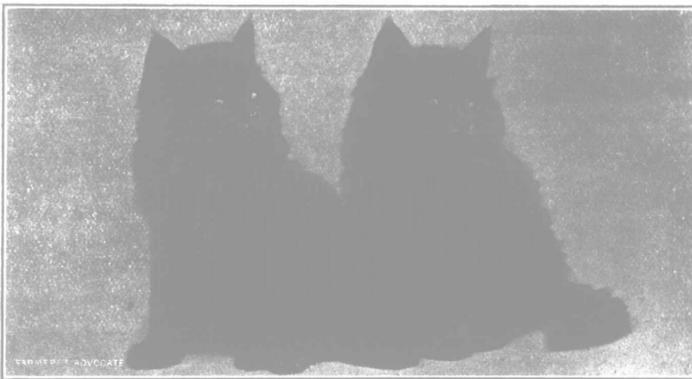
4. What makes more noise than a pig under a gate? Ans.—Two pigs.

CARL NICHOLS (age 11.)

Ratho, Ont.

Dear Puck,—This is my first letter to the Beaver Circle. I am ten years old, and I am in the Third class. My uncle takes "The Farmer's Advocate," and I enjoy reading it.

I have read many interesting books, such as "The Doctor," "Uncle Tom's Cabin," and "Evangeline."



"A camera's coming," said Jack to Jill, They'll want us to sit unusually still."

I will finish with some riddles:

1. Round as an apple, as flat as a chip, four little eyes and can't see a bit. Ans.—A button.

2. Why is it that an elephant cannot ride in a train? Ans.—Because he can't check his trunk.

VERDA TELFER (age 10.)

Morristown, Ont. (Class III.)

**Our Junior Beavers.**

Dear Puck,—This is my first letter to the Beaver Circle. Papa takes "The Farmer's Advocate," and I always read the Beaver Circle first.

I go to school and am in the Second class. I have a cat named Spot and a dog named Fido for pets. Fido is muzzled.

I live on a farm, and my little sister and I have lots of fun feeding the ducks and chickens. We also have lots of fun riding down snowbanks on the sleigh.

If I see this in print I may write again.

Will some of the little girls please respond with me?

ELSIE CARTER (age 8.)

Moulton, Ont. (Class II.)

Dear Puck,—I am six years old; I have two sisters. They are two years old. Their names are Margaret and Janet. I had a dog, but he ran away. I have two kittens; one is Fluff and the other one is Trix.

I go to school, and sit with Mary Mark.

HELEN SMITH.

New Hamburg, Ont.

**Beaver Circle Notes.**

Several letters were thrown away again because age and class (that is book) at school were not given. Remember, Beavers, this is the rule. All in Books III., IV. and High School students, up to the age of fourteen, go as Senior Beavers; those in Books II., Part II., and those who have not started to school, are Junior Beavers.

**The Roundabout Club**

**The Common House-fly.**

Dear Sir,—Will you kindly give us the life history of the common house-fly, and oblige.

A READER.

Essex Co., Ont.

The common house-fly (*Musca domestica*) belongs to the order known as Diptera, and is found in almost every part of the known world. On the approach of winter, in the temperate regions, they creep into the crevices of houses or outbuildings. In spring, a few survivors, chiefly females ready to reproduce, make their appearance, and lay their eggs, preferably in horse manure, but, lacking this, in any decaying vegetable or animal matter. In six or eight hours, the eggs hatch into white, pointed maggots. These grow rapidly, cast their skin twice, and usually reach full growth in four or five days. The outer skin then hardens, swells, turns dark brown in color, and within it the true pupa is formed. In about five days more the last transformation is complete, and the full-grown fly issues through a round hole in the pupa-case. This process is

represented; but in the Dominion Parliament, the actual farmer members are very few.

There is, no doubt, a reason for this; most farmers can leave their work for a few hours at a time, to look after municipal affairs, and quite a number are capable of doing so. There is, too, a class of farmers who, being fairly well-educated, and with a gift for public speaking, are able to hold their own in a Provincial House. But the farmer is an exception who can fittingly take his place in the Dominion Parliament, where, it is assumed, the brightest stars of the political sky shed their light.

It is not at all necessary, either, that farmers should be represented only by farmers. There are, no doubt, many members in other professions who would be willing to push the farmers' interests. But they must try to please all, and that is most easily done by pleasing their urban constituents; for, anyhow, "many farmers do not read the newspapers, and they will not know whether their member serves them well or ill." This is just where the farmer who does not read "fools himself"; a dollar or two a year, invested in a good weekly newspaper (not a local rag), would enable him to "keep track" of his M. P., and vote in future accordingly.

There is, too, the fact that a good deal of the legislation in favor of farmers comes by way of "soft soap"; very often it is a case of "throwing a sprat to catch a mackerel," or, in other words, a vote. The farmers, judging by their numbers and assessment, should be able to demand, not beg, what they want. Farmers, as a class, seem to regard as a favor any legislation or appropriation in their interest; whereas they should take it as their right.

There is, however, a great deal of power for government lying within reach of the farmers if only they would grasp it. When all will read their paper, and make a serious study of politics; rid themselves of party and sectarian feeling; organize themselves into co-operative and kindred associations; and, generally, throw off their present indifference or carelessness—then, and then only, will they be able to command the respect and consideration due them from the rest of the nation. Then they can demand, from their candidates, guarantees to study and forward farming interests. Then, rural-mail delivery, free to all, would come as a matter of course; the railway companies would be forced to protect their level crossings, which take such an awful toll of farmers' lives each year; and manufacturers and railroads would have to do without bonuses, or get out of business, as the farmer has to.

How is this state of affairs to be brought about? The answer is one that fits many other questions as well as this—education. The grown-up farmer may be too firmly grounded in his opinions to be very receptive, though there is good ground to work on amongst the younger ones. But the work must commence at the bottom, with the future farmers, the children. They must be educated, not only to read, write and figure; but to use their own brains, and their own judgment. They must have good, unbiased history, and be allowed to draw their own conclusions; and politics (not partisanship) should be a subject for the older scholars. A plan that works well in some countries, is to give the older children a well-written, independent newspaper, on occasional days, instead of the usual reading lesson. The children take the papers home, thus carrying whatever they contain to their parents too.

Treat the children as embryo citizens, placing more and more responsibility upon them as they advance in their education; then, as they grow to maturity, they will not only influence the older members of their community, and be examples for the younger ones; but, as farmers, will hold that power in Government which belongs of right to the farmer in an agricultural country.

W. HARGRAVE.

Waterloo Co., Ont.

**The Farmer as a Power in Govern-**

ment.

(Prize Essay.)

In all the different grades of Government—that is, municipal, Provincial and Dominion—the farmer's power is felt; but it may be noticed that, as he ascends the scale, his power (as represented by numbers, at all events) is distinctly on the decrease. In rural government, the farmer has almost unlimited sway; in the Provincial Houses, he is still fairly well-

Sir John A. Macdonald once said that the farmers gave him the least trouble of any class of people, which practically means that the farming class had the



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**Clydesdales.**

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least power of any class represented in Parliament, and made the fewest demands for their own interests—and what was true then is true to-day. This is, without doubt, their own fault. All statesmen agree that agriculture is most important in a nation, but, though they are emphatic in the declaration, are not so zealous in keeping it to its proper place, so, on the farmer himself falls the task of raising it to its proper standard.

According to the number of people engaged in farming, they have the fewest representatives of their own calling in Parliament—only 25 out of 221 in the Dominion House—and there is much doubt if they are all practical farmers.

The position of members of Parliament is such an unaccustomed one to the farmer, that he has very little confidence in himself, and so, of course, does not inspire it in others. Seldom is he the equal in education of his associates, certainly not in the little graces that usually accompany the politician, but in all probability he is more upright in character, can take a broader view of the questions presented to him, and is more willing to live and let live. For just these reasons he frequently finds himself no match for the shrewd, calculating lawyer or manufacturer. The time is rapidly passing when the extreme simplicity and innocence of the farmer is a standing joke; nevertheless, it is true that, owing to his life in the open country, amongst simple surroundings, he is most ignorant concerning much of the sharp practices and "get-rich-quick" schemes of the large cities. Sometimes, the very so-called "smartness" is the other fellow's downfall, and in bas-relief stands out the sterling qualities of the farmer. He is slowly, but surely, winning his way. As his position is to-day, the farmer is almost powerless to check the unnecessary advantages given to large corporations. Large sums of money are used by railroad companies that would much more benefit the country if spent on country roads, bridges, etc. The farmer must pay unduly-high taxes, and every improvement on his farm means still higher tax. As the farmer has very few representatives in Parliament, he can place no restriction on the Government, while other business concerns have representatives, and so have a certain control over it.

True, there are the Township Councils, by which neighborhood improvements are in the hands of the people, and this is as it should be; yet the farmer is claiming his right to have a voice in the higher Government, so that he may have equal rights with every class of people over whom it has power.

The time when agriculture will be looked up to as a science, and the farmer considered one of the most capable and intelligent men of our country, we firmly believe, is near at hand. Then the farmers will take their place in Parliament, and look after their own interests. To accomplish this it is necessary to begin with the education of the child in the Public School. He will not be educated away from the farm, but given a good, practical education, and a love and admiration for farming and farm life.

Even now, nature study is being introduced into the schools, and cultivating their plots of land and learning how to get the best results from it is part of the scholar's daily routine. Then the High School is the next step which is an advanced line of similar work, with the addition of a few subjects, which, though not termed practical subjects, will prove to be of great enjoyment and interest in later life.

Farms and farm life are continually improving. So with such a life, who would be better fitted to assist in ruling the country than the farmer? As there is not so much light amusement to distract in the country, we frequently find the farming class a well-read, observant people. The very air seems freer of jealousy and prejudice, and, as money is well earned, so it is spent with careful thought. So in spending his country's money, the farmer would use careful thought and reasoning. Farmers' clubs are springing up all through the country, courses in agriculture, judging courses, Farmers' Institutes, Debating Clubs, are all educating the farmer until, ere long, he may take his place with any business or professional man, and farming will be judged one of the most im-

portant works in which anyone could be engaged.

As yet, farmers have shown no understanding of the value of a "combine," while the manufacturers have accomplished much by this method of standing by each other; but we believe that with further education, and knowledge gained by travel, the farmers will realize that if they organize they would do much better for themselves, and also could do much to break up restrictive "combines." If this were once accomplished, it would be the means of bringing cheaper food, clothing, and other necessary articles to the people, so would greatly help the ordinary people, and they could have the money they used, which at present goes into the pockets of the wealthy. Would it not be better for everyone to stop this tendency of having a few gain all the wealth and setting up a rich aristocracy in this country, and so avoid the strife such as is in progress in England at the present time? There is little likelihood of the farmer becoming a faddist about the militia or navy, yet he will be foreseeing enough to wish to give his country proper protection from possible invasion of other countries. To give the country rural-mail delivery and good telephone lines, will be one of his greatest aims, for he knows that the betterment of the financial and social life will mean a more contented class of people, and what is for the betterment of the farmer is evidently advantageous to every other class. Without doubt, with the farmer in power, we would have more restrictions placed on the autos, which would mean a guard placed over the peace and lives of the majority of our people, and many who must forego the pleasure of driving on account of the danger of motor-cars, might again enjoy their little jaunts with pony and carriage. Level crossings on the railroads have been greatly talked of, but still remain a danger to the public. Had we some clear-thinking, sensible men in the Government, who could not be bought over by railroad corporations, these would have to be changed, and safer means of crossing provided. Also, we would have cheaper transportation and travelling. Anyone can see how this would be an advantage, particularly to the poorer classes. If we have a happy, contented laboring class, do we not come near to solving the problem that the Socialists find such a heavy one to-day?

M. E. G.

(This competition is now closed.)

### Our Fire Horses.

Chief Spencer of the Chelsea fire department sat chatting with friends in his office the other evening when he abruptly excused himself and called someone by telephone. "I promised to call him at five minutes of nine," he apologized.

"But how did you know it was five minutes of nine?" asked an observant visitor a few minutes later, after he had satisfied himself that there was no watch or clock in sight.

"Why, I heard those horses pawing in their stalls downstairs," replied the chief. "They are very accurate timekeepers."

"You see," explained the chief, "we have a test blow on the fire alarm system every night at just 9 o'clock. The doors of the stalls open automatically, the horses run out and take their respective places under the swinging harnesses of the different pieces of apparatus. They are hitched into the harnesses and then, after this nightly drill is over, they go back into their stalls for the night."

"Every night, just before that alarm strikes at 9 o'clock," continued Chief Spencer, "those horses begin to paw the wooden floors of their stalls. They never vary more than two minutes either way, and almost never more than one minute. I've observed this thing for years. Every horse that enters the fire service does this after he has been here a few weeks."

"How do they tell the time so closely? I give it up. I simply know that they do it—that in some mysterious way they are able to pick out that minute—that almost exact point of time from the 1440 minutes that occur within every 24 hours," concluded the chief.—Boston Evening Herald.

Hope not sunshine every hour.

Fear not clouds will always pour.

—Burns.

The "Farmer's Advocate" Fashions.



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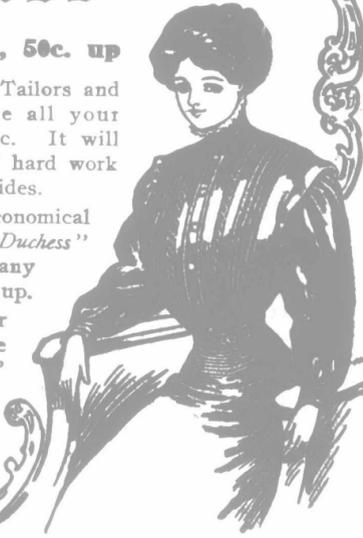
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Now.

When I was in yon town, and had Stones all around me, hard and cold, My flesh was firm, my sight was keen, And still I felt my heart grow old. But now, with this green world around, By my great love for it! I swear, Though my flesh shrink, and my sight fail, My heart will not grow old with care. When I do hear these joyful birds, I cannot sit with my heart dumb; I cannot walk among these flowers, But I must help the bees to hum. My heart has echoes for all things, The wind, the rain, the bird and bee; 'Tis I that—now—can carry Time, Who in that town must carry me. I see not now the great coke fire With ten men seated there, or more, Like frogs on logs; and one man fall Dying across the boarded floor. I see instead the flowers and clouds, I hear the rills, the birds and bees; The squirrel flies before the storm He makes himself in leafy trees. —William H. Davies.

SPRING AND SUMMER THE SIMPSON COMPANY LIMITED. TORONTO CANADA. No 119

This Catalogue Now Ready for Mailing. Though Easter comes very early this year, it was decided not to publish this Catalogue until we could illustrate the Authentic Spring Styles.

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## The Golden Dog

(Le Chien D'Or.)

A Canadian Historical Romance.

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### CHAPTER LII.—Continued.

An hour ago Amelie had been the envy and delight of her gay bridesmaids. Her heart had overflowed like a fountain of wine, intoxicating all about her with joy at the hope of the speedy coming of her bridegroom. Suddenly the idols of her life had been shattered as by a thunderbolt, and lay in fragments around her feet.

The thought came upon her like the rush of angry wings. She knew that all was over between her and Pierre. The cloister and the veil were all that were left to Amelie de Repentigny.

"Heloise, dearest sister!" exclaimed she, "my conscience tells me I have done right, but my heart accuses me of wrong to Pierre, of falseness to my plighted vows in forsaking him; and yet, not for heaven itself would I have forsaken Pierre. Would that I were dead! Oh, what have I done, Heloise, to deserve such a chastisement as this from God?"

Amelie threw her arms around the neck of Heloise, and leaning her head on her bosom, wept long and without restraint, for none saw them save God.

"Listen!" said Heloise, as the swelling strain of the organ floated up from the Convent chapel. The soft voices of the nuns mingled in plaintive harmony as they sang the hymn of the Virgin:

"Pia Mater! Fons amoris!  
Me sentire vim doloris  
Fac, ut tecum lugeam!"

Again came the soft, pleading notes of the sacred hymn:

"Quando corpus morietur,  
Me sentire vim doloris  
Paradisi gloria! Amen!"

The harmony filled the ears of Amelie and Heloise like the lap of the waves of eternity upon the world's shore. It died away, and they continued praying before Our Lady of Grand Pouvoir.

The silence was suddenly broken. Hasty steps traversed the little chapel. A rush of garments caused Amelie and Heloise to turn around, and in an instant they were both clasped in the passionate embrace of the Lady de Tilly, who had arrived at the Convent.

"My dear children, my poor, stricken daughters," exclaimed she, kissing them passionately and mingling her tears with theirs, "what have you done to be dashed to the earth by such a stroke of divine wrath?"

"Oh, aunt, pardon us for what we have done!" exclaimed Amelie, "and for not asking your consent, but alas! it is God's will and doing! I have given up the world; do not blame me, aunt!"

"Nor me, aunt!" added Heloise; "I have long known that the cloister was my sole heritage, and I now claim it."

"Blame you, darling! Oh, Amelie, in the shame and agony of this day I could share the cloister with you myself forever, but my work is out in the wide world, and I must not withdraw my hand!"

"Have you seen Le Gardeur? Oh, aunt! have you seen my brother?" asked Amelie, seizing her hand passionately.

"I have seen him, and wept over him," was the reply. "Oh, Amelie! great as is his offence, his crime—yes, I will be honest calling it such—no deeper contrition could rend his heart had he committed all the sins forbidden in the Decalogue. He demands a court-martial to condemn him at once to death, upon his own

self-accusation and confession of the murder of the good Bourgeois."

"Oh, aunt, and he loved the Bourgeois so! It seems like a hideous dream of fright and nightmare that Le Gardeur should assail the father of Pierre Philibert, and mine that was to be!"

At this thought the poor girl flung herself upon the bosom of the Lady de Tilly, convulsed and torn by as bitter sobs as ever drew human pity.

"Le Gardeur! Le Gardeur! Good God! what will they do with him, aunt? Is he to die?" cried she, imploringly, as with streaming eyes she looked up at her aunt.

"Listen, Amelie! Compose yourself and you shall hear. I was in the Church of Notre Dame des Victoires when I received the tidings. It was long before the messenger found me. I rose instantly and hastened to the house of the Bourgeois, where its good master lay dead in his bloody vesture. I cannot describe the sad sight, Amelie! I there learned that the Governor and La Corne St. Luc had been to the house of the Bourgeois, and had returned to the Castle."

"Oh, aunt, did you see him? Did you see the good old Bourgeois? And you know he is dead?"

"Yes, Amelie, I saw him, and could have wished my eyesight blasted forever after. Do not ask me more."

"But I must, aunt! Did you see—oh, why may I not yet utter his dear name?—did you see Pierre?"

"Yes, Amelie. Pierre came home unexpectedly while I was weeping over the dead corpse of his father. Poor Pierre! my own sorrows were naught to his silent grief! It was more terrible than the wildest outburst of passion I ever saw!"

"And what did he say? Oh, aunt, tell me all! Do not spare me one word, however bitter! Did he not curse you? Did he not curse me? And above all, Le Gardeur? Oh, he cursed us all; he heaped a blasting malediction upon the whole House of Repentigny, did he not?"

"Amelie, be composed; do not look at me so wildly with these dear eyes, and I will tell you." Her aunt tried to soothe her with fond caresses.

"I will be composed! I am calm! Look now, aunt, I am calm!" exclaimed the grief-stricken girl, whose every nerve was quivering with wild excitement.

The Lady de Tilly and Heloise made her sit down, while each held forcibly a hand to prevent an access of hysteria. Mere Ste. Verge rose and hastily left the chapel to fetch water.

"Amelie, the nobleness of Pierre Philibert is almost beyond the range of fallible mortals," said the Lady de Tilly. "In the sudden crash of all his hopes he would not utter a word invective against your brother. His heart tells him that Le Gardeur has been made the senseless instrument of others in this crime."

"A thousand thanks, dearest aunt, for your true appreciation of Pierre! I know he deserves it all; and when the veil covers my head forever from the eyes of men, it will be my sole joy to reflect that Pierre Philibert was worthy, more than worthy, of my love! But what said he further, aunt? Oh, tell me all!"

"He rose from his knees beside the corpse of his father," continued the lady, "and seeing me kneeling, raised me and seated me in a chair beside him. He asked me where you were, and who was with you to support and comfort you in this storm of affliction. I told him, and he kissed me, exclaiming, 'Oh, aunt—mother, what shall I do?'"

"Oh, aunt! did Pierre say that? Did he call you aunt and mother? And did he not curse me at all? Poor Pierre!" And she burst into a flood of tears which nothing could control.

"Yes, Amelie! His heart is bleeding to death with this dreadful sword-stroke of Le Gardeur's," said the Lady de Tilly, after waiting till she recovered somewhat.

"And will he not slay Le Gardeur? Will he not deem it his duty to kill

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my brother and his?" cried she. "He is a soldier, and must!"

"Listen, Amelie. There is a divinity in Pierre that we see only in the noblest of men; he will not slay Le Gardeur. He is his brother and yours, and will regard him as such. Whatever he might have done in the first impulse of anger, Pierre will not now seek the life of Le Gardeur. He knows too well whence this blow has really come. He has been deeply touched by the remorse and self-accusation of Le Gardeur."

"I could kiss his feet! my noble Pierre! Oh, aunt, aunt! what have I not lost! But I was betrothed to him, was I not?" She started up with a shriek of mortal agony. "They never can recall that!" she cried, wildly. "He was to have been mine! He is still mine, and forever will be mine! Death will reunite what in life is sundered! Will it not, aunt?"

"Yes; be composed, darling, and I will tell you more. Nay, do not look at me so, Amelie!" The Lady de Tilly stroked her cheek and kissed the dark eyes that seemed flaring out of their sockets with maddening excitement.

"When I had recovered strength enough to go to the Castle to see the Count, Pierre supported me thither. He dared not trust himself to see Le Gardeur, who from his prison sent message after message to him to beg death at his hand."

"I held a brief conference with the Governor, La Corne St. Luc, and a few gentlemen, who were hastily gathered together in the council-chamber. I pleaded long, not for pardon—not even for Le Gardeur could I ask pardon, Amelie!" exclaimed the just and noble woman—"but for a calm consideration of the terrible circumstances which had surrounded him in the Palace of the Intendant, and which had led directly to the catastrophe."

"And what said they? Oh, be quick, aunt! Is not Le Gardeur to be tried by martial law, and condemned at once to death?"

"No, Amelie! The Count de la Galissoniere, with the advice of his wisest counsellors, among whom is your godfather and others, the dearest friends of both families, have resolved to send Le Gardeur to France by the Fleur de Lys, which sails tomorrow. They do this in order that the King may judge of his offence, as, also, to prevent the conflict that may arise between the contending factions in the Colony, should they try him here. This resolution may be wise, or not, I do not judge; but such is the determination of the Governor and Council, to which all must submit."

Amelie held her head between her palms for some moments. She was violently agitated, but she tried to consider, as best she might, the decision with regard to her brother.

"It is merciful in them," she said, "and it is just. The King will judge what is right in the sight of God and man. Le Gardeur was but a blind instrument of others in this murder, as blind as the sword he held in his hand. But shall I not see him, aunt, before he is sent away?"

"Alas, no! The Governor, while kind, is inexorable on one point. He will permit no one, after this, to see Le Gardeur, to express either blame or approval of his deed, or to report his words. He will forbid you and me and his nearest friends from holding any communication with him before he leaves the Colony. The Count has remitted his case to the King, and resolved that it shall be accompanied by no self-accusation which Le Gardeur may utter in his frantic grief. The Count does this in justice, as well as mercy, Amelie."

"Then I shall never see my brother more in this world—never!" exclaimed Amelie, supporting herself on the arm of Heloise. "His fate is decided, as well as mine, and yours, too, O Heloise."

"It may not be so hard with him as with us, Amelie," replied Heloise, whose bosom was agitated with fresh emotions at every allusion to Le Gardeur. "The King may pardon

him, Amelie." Heloise in her soul hoped so, and in her heart prayed so.

"Alas! If we could say God pardoned him!" replied Amelie, her thoughts running suddenly in a counter-current. "But my life must be spent in imploring God's grace and forgiveness all the same, whether man forgive him or no."

"Say not life, but our lives, Amelie. We have crossed the threshold of this house together for the last time. We go no more out to look upon a world fair and beautiful to see, but so full of disappointment and wretchedness to have experience of!"

"My daughters," exclaimed the Lady de Tilly, "another time we will speak of this. Harken, Amelie! I did not tell you that Pierre Philibert came with me to the gate of the Convent to see you. He would have entered, but the Lady Superior refused inexorably to admit him even to the parlor."

"Pierre came to the Convent—to the Convent?" repeated Amelie, with fond iteration, "and they would not admit him? But I should have died of shame to see him. They were kind in their cruelty. Poor Pierre! he thinks me still worthy of some regard." She commenced weeping afresh.

"He would fain have seen you, darling," said her aunt. "Your flight to the Convent—he knows what it means—overwhelms him with a new calamity."

"And yet it cannot be otherwise. I dare not place my hand in his now, for it would redden it! But it is sweet, amid my affliction, to know that Pierre has not forgotten me, that he does not hate me; nay, that he still loves me, although I abandon the world and him who to me was the light of it. Why would they not admit him?"

"Mere Migeon is as hard as she is just, Amelie. I think, too, she has no love for the Philiberts. Her nephew Varin has all the influence of a spoiled son over the Lady Superior." Amelie scarcely regarded the last remark of her aunt, but repeated the words, "Hard and just! Yes, it is true, and hardness and justice are what I crave in my misery. The flintiest couch shall be to me a bed of down, the scantiest fare a royal feast, the hardest penance a life of pleasure. Mere Migeon cannot be more hard nor more just so me than I would be to myself."

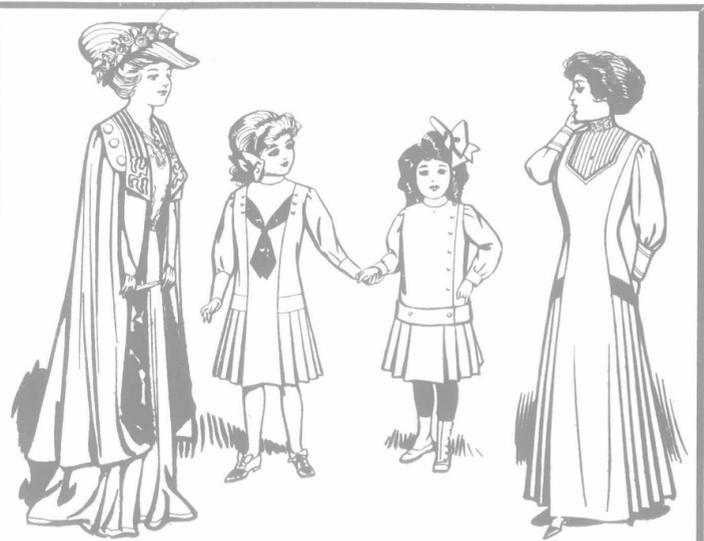
"My poor Amelie! My poor Heloise!" repeated the lady, stroking their hair and kissing them both alternately; "be it as God wills. When it is dark, every prospect lies hid in the darkness, but it is there all the same, though we see it not; but when the day returns, everything is revealed. We see naught before us now but the image of our Lady of Grand Pouvoir, illumined by the lamp of Repentigny, but the sun of righteousness will yet arise with healing on his wings for us all! But oh, my children, let nothing be done hastily, rashly, or unbecoming the daughters of our honorable house."

CHAPTER LIII.

"Lovely in Death the Beauteous Ruin Lay."

The chant of vespers had long ceased. The Angelus had rung out its last summons to invoke a blessing upon life and death at the close of day. The quiet nuns filed off from their frugal meal in the long refectory and betook themselves to the community or to their peaceful cells. The troop of children in their charge had been sent with prayer to their little couches in the dormitory, sacred to sleep and happy dreams.

Candles flickered through the long passages as veiled figures slowly and noiselessly passed towards the chapel to their quiet devotions. Scarcely a footfall reached the ear, nor sound of any kind, except the sweet voice of Mere Madelaine de St. Borgia. Like the flow of a full stream in the still moonlight, she sang her canticle of praise to the guardian of the house, before she retired to rest.



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There is no time so miserable but a man may be true.

—Shakespeare.

"Ave, Joseph! Fili David juste!  
Vir Mariæ de qua natus est Jesus!"

Lady de Tilly sat listening as she held the hands of her two nieces, thinking how merciless was Fate, and half rebelling in her mind against the working of Providence. The sweet song of Mere St. Borgia fell like soft rain upon her hard thoughts, and instilled a spirit of resignation amid the darkness, as she repeated the words, "Ave, Joseph!" She fought bitterly in her soul against giving up her two lambs, as she called them, to the cold, scant life of the cloister, while her judgment saw but too plainly that naught else seemed left to their crushed and broken spirits. But she neither suggested their withdrawal from the Convent, nor encouraged them to remain.

In her secret thought, the Lady de Tilly regarded the cloister as a blessed refuge for the broken-hearted, a rest for the weary and overlaid with earthly troubles, a living grave, which such may covet and not sin; but the young, the joyous, the beautiful, and all capable of making the world fairer and better, she would inexorably shut out. Christ calls not these from the earthly paradise; but the afflicted, the disappointed, the despairing, they who have fallen helplessly down in the journey of life, and are of no further use in this world, these he calls by their names and comforts them. But for those rare souls who are too cold for aught but spiritual joys, He reserves a peculiar, though not His choicest benediction.

The Lady de Tilly pondered these thoughts over and over, in the fulness of pity for her children. She would not leave the Convent at the closing of the gates for the night, but remained the honored guest of Mere Migeon, who ordered a chamber to be prepared for her in a style that was luxurious compared with the scantily-furnished rooms allotted to the nuns.

Anelie prevailed, after much entreaty, upon Mere Esther, to intercede with the Superior for permission to pass the night with Heloise in the cell that had once been occupied by her pious kinswoman, Mere Madeleine.

"It is a great thing to ask," replied Mere Esther, as she returned with the desired boon, "and a greater still to be obtained! But Mere Migeon is in a benevolent mood to-night; for the sake of no one else would she have granted a dispensation of the rules of the house."

That night Lady de Tilly held a long and serious conference with Mere Migeon and Mere Esther upon the event which had driven her nieces to the cloister, promising that if, at the end of a month, they persisted in their resolutions, she would consent to their assumption of the white veil; and upon the completion of their novitiate, when they took the final vows, she would give them up with such a dowry as would make all former gifts of the house of Repentigny and Tilly poor in comparison.

Mere Migeon was especially overjoyed at this prospect of relieving the means of her house, which had been so terribly straitened of late years. The losses occasioned by the war had been a never-ending source of anxiety to her, and Mere Esther, who, however, kept their troubles as far as possible to themselves, in order that the cares of the world might not encroach too far upon the minds of the community. Hence they were more than ordinarily glad at this double vocation in the house of Repentigny. The prospect of its great wealth falling to pious uses they regarded as a special mark of divine providence and care for the house of St. Ursule.

"Oh, Mere Esther! Mere Esther!" exclaimed the Lady Superior. "I feel too great a satisfaction in view of the rich dowry of these two girls. I need much self-examination to weed out worldly thoughts. Alas! Alas! I would rather be the humblest aunt in our kitchen than the Lady Superior of the Ursulines. Blessed old Mere Marie used to say, 'a good turn

in the kitchen was as good as a prayer in the chapel.'"

Mere Esther reflected a moment and said, "We have long found it easier to pray for souls than to relieve bodies. I thank good St. Joseph for his prospective blessing upon our monastery."

During the long and wasting war, Mere Migeon had seen her poor nuns reduced to grievous straits, which they bore cheerfully, however, as their share of the common suffering of their country. The cassette of St. Joseph, wherein were deposited the oboli for the poor, had long been emptied. The image of St. Joseph au Ble, that stood at the great stair, and kept watch over the storeroom of corn and bread, had often guarded an empty chamber. St. Joseph au Labreur, overlooking the great kitchen of the Convent, had often been deaf to the prayers of "my aunts," who prepared the food of the community. The meagre tables of the refectory had not seldom been the despair of the old depositeaire, Mere St. Louis, who devoutly said her longest graces over her scantiest meals.

"I thank St. Joseph for what he gives, and for what he withholds, yea, for what he takes away!" observed Mere St. Louis to her special friend and gossip, Mere St. Antoine, as they retired from the chapel. "Our years of famine are nearly over. The day of the consecration of Amelie de Repentigny will be to us that marriage at Cana. Our water will be turned into wine. I shall no longer need to save the crumbs, except for the poor at our gate."

The advent of Amelie de Repentigny was a circumstance of absorbing interest to the nuns, who regarded it as a reward for their long devotions and prayers for the restoration of their house to its old prosperity. We usually count Providence upon our side when we have consciously done aught to merit the good fortune that befalls us.

And now days came and went, went and came, as Time, the inexorable, ever does, regardless of human joys or sorrows. Amelie, weary of the world, was only desirous of passing away from it to that sphere where time is not, and where our affections and thoughts alone measure the periods of eternity. For time, there, is but the shadow that accompanies the joys of angels, or the woes of sinners—not the reality. It is time here, eternity there!

The two postulates seemed impressed with the spirit that, to their fancies, lingered in the cell of their kinswoman, Mere Madeleine. They bent their gentle necks to the heaviest yoke of spiritual service which their sorrow would consent to lay upon them.

Amelie's inflexible will made her merciless towards herself. She took pleasure in the hardest of self-imposed penances, as if the racking of her soul by incessant prayers, and wasting of her body by vigils and cruel fastings, were a vicarious punishment borne for the sake of her hapless brother.

She could not forget Pierre, nor did she ever try to forget him. It was observed by the younger nuns that when, by chance or design they mentioned his name, she looked up and her lips moved in silent prayer; but she spoke not of him, save to her aunt and to Heloise. These two faithful friends alone knew the inexpressible anguish with which she had heard of Pierre's intended departure for France.

The shock caused by the homicide of the Bourgeois, and the consequent annihilation of all the hopes of her life in a happy union with Pierre Philibert, was too much for even her naturally sound and elastic constitution. Her health gave way irretrievably. Her face grew thin and wan without losing any of its spiritual beauty, as her soul looked through its ever more transparent covering, which daily grew more and more etherealized as she faded away. A hectic flush, like a spot of fire, came and went for a time, and at last settled permanently upon her cheek. Her eyes, those glorious

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—Dickens.

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**BARRED** Rocks, Minorcas and Houdans, winners at Guelph, Toronto, Montreal, Nanaimo and Lindsay. Stock and eggs for sale. Circular free. C. Day, Highgate, Ont.

**BRED** for size and eggs. White Wyandottes. Beautiful white birds. Eggs: 15, \$1; 55, \$3; 110, \$5. R. J. Gibb, Galt, Ont.

**BUFF ORPINGTONS**—Pure bred. Stout cockerels. Price \$3. Order eggs for hatching early. Hugh A. Scott, Caledonia, Ont.

**BEST** five-fold Barred Plymouth Rock cockerels in Canada. Holders of two championship cups. You cannot improve your stock with the one and two-doll kind. Twenty-five dollars on deposit with The Advocate to guarantee satisfaction to all customers. Jno. Pringle, London, Ont.

**CANADA'S** best Anconas. Winter layers. Very profitable. Free circulars. Tells all about Anconas and Leghorns. Edmund Carlyle Apps, Box 224, Vice-President International Ancona Club, Branford, Ontario.

**EDELWEISS WHITE ROCKS**—Eggs for hatching, \$2.00 for 15. Breeding pen: "Edelweiss 1" (3rd Ontario cock, 09), with 10 yearling hens, trap-nested, which have as pullets proven themselves "worth while." A grand utility pen. J. A. Butler, M. D., Baden, Ont.

**FOR SALE**—M. B. turkeys. Fine heavy birds, bred from first-prize winning stock. R. G. Rose, Glanworth, Ont.

**FOR SALE**—Ten choice nicely laid Andalusian hens, bred from first-class stock, at two dollars each; about all of them laying now. C. Richardson, Gourock, Ont.

**KELLERSTRASS** Cook Strain White Orpingtons. Helver's strain Buffs. Eggs, \$1 and \$2 setting. Stock for sale. H. Ferns, 715 William Street, London, Canada.

**LANGSHANS**—Dual-purpose. Glenlock Farm Black Langshans are the best for eggs and meat combined. Thoroughbred eggs, \$3 a dozen. City Office. 396 Yonge St., Toronto.

**PURE-BRED POULTRY**—Eggs for sale from any of the following varieties: Buckeye Reds, English Red Caps, Silver Dorkings, Black Minorcas, White and Barred Rocks. Price \$2 for 15 eggs. Geo. Pollock, Kelso, Ont.

**STOCK** for sale in Buff Orpingtons, S. C. White Leghorns and White Wyandottes. Eggs from Buff Orpingtons \$1.50, and White Leghorns at \$1 per 15. Fertility guaranteed. Robt. Houser, Cambridge, Ont.

**WHITE** and Brown Leghorns.—Prizewinning stock; also eggs for hatching. Arthur Master, Highgate, Ont.

**PURE-BRED POULTRY!**  
Barred Plymouth Rocks.  
White Orpingtons.  
We have the finest strains in North America. Stock and eggs in season. **Enivar Poultry Farms, Lansing P. O., Ont.**

**SHOEMAKER'S BOOK ON POULTRY**  
and Album for 1910 has 224 pages with many colored plates of fowls true to life. It tells all about chickens, their prices, their care, diseases and remedies. All about incubators, their uses and their operation. All about poultry houses and how to build them. It is an encyclopedia of chickendom. You need it. Only 15c. **G. C. SHOEMAKER, Box 874, Freeport, Ill.**  
Think well. Do well. Will follow thought.  
—Tennyson.

orbs, filled with unquenchable love, grew supernaturally large and brilliant with the flames that fed upon her vital forces. Amelie sickened and sank rapidly. The culture of quick consumption had fastened upon her young life.

Mere Esther and Mere Migeon shook their heads, for they were used to broken hearts, and knew the infallible signs which denote an early death in the young and beautiful. Prayers and masses were offered for the recovery of Amelie, but all in vain. God wanted her. He alone knew how to heal that broken heart. It was seen that she had not long to live. It was known she wished to die.

Pierre heard the tidings with overwhelming grief. He had been permitted but once to see her for a few brief moments, which dwelt upon his mind forever. He deferred his departure to Europe in consequence of her illness, and knocked daily at the door of the Convent to ask after her and leave some kind message or flower, which was faithfully carried to her by the friendly nuns who received him at the wicket. A feeling of pity and sympathy for these two affianced and unfortunate lovers stole into the hearts of the coldest nuns, while the novices and the romantic convent girls were absolutely wild over the melancholy fate of Pierre and Amelie.

(To be continued.)

### Buffalo.

Cattle.—Prime steers, \$6.65 to \$7. Veals.—\$6 to \$11.50; a few, \$11.75. Hogs.—Heavy, \$9.95 to \$10; mixed, \$9.85 to \$10; Yorkers, \$9.75 to \$9.95; pigs, \$9.75 to \$9.80; roughs, \$9.20 to \$9.40; dairies, \$9.75 to \$9.95. Sheep and Lambs.—Lambs, \$6.25 to \$9.80; yearlings, \$8.50 to \$9; wethers, \$7.50 to \$7.85.

### British Cattle Markets.

Liverpool and London cables quote live cattle (American), at 12½c to 13½c, dressed weight; refrigerator beef, at 10c to 10½c per lb.

### GOSSIP.

A pure St. Lambert Jersey bull, 16 months old, son of a high-class cow, is advertised for sale by Mrs. F. A. Rolph, Markham, Ont.

W. E. Buttar, Faskally, Scotland, has sold his grand Shorthorn bull, British Leader, which he purchased at the Perth sale last year, to go to the Argentine.

Fifty-four Percheron stallions and mares, the property of J. C. Robinson, Wichita, Kansas, were sold by auction Feb. 15th, realizing an average of \$606.40. Twenty-nine stallions brought an average of \$730.85, and twenty-five mares an average of \$462. The highest price was \$1,660, for a three-year-old stallion.

Arthur Johnston, Greenwood, Ont., writing re his dispersion sale of Shorthorns, says: I have never offered at public sale, or by private contract, a finer lot of young bulls than I am going to offer at my sale on March 8th. They are big, sappy, wealthy fellows, in just the nicest condition. Marr Missie, Killbuck Beauty, Cruickshank Nonpareil, Bruce Mayflower, Kinellar, Mina, Wedding Gift, and others equally attractive in individuality and breeding, ranging in ages from eleven months to nearly two years.

### PERTH ABERDEEN-ANGUS SALE.

The Aberdeen-Angus bull show and sales at Perth, Scotland, February 15th, were very successful, considering the large number catalogued. The total number sold was 306 head, and the average price realized was \$105. The first-prize senior yearling, Emerald, sold for 300 guineas, over \$1,500. The junior yearling, Eligible of Ballindalroch, placed sixth in his class, brought 210 guineas, while the first-prize winner in the same class sold for 110 guineas.

# Wear Ruthstein's STEEL SHOES

Absolute Protection Against Colds, Rheumatism, Stiffness, Discomfort No More Blistered, Aching Feet GOOD-BYE to CORNS and BUNIONS!



## How Our 1910 Model Steel Shoes Are Made. The Wonderful Steel Bottoms

Steel Shoes solve the problem of the Perfect Work Shoe for all time to come. The soles of Steel Shoes and an inch above the soles are stamped out of a special light, thin, rust-resisting steel. One piece of seamless steel from toe to heel. As a further protection from wear, and a means of giving a firm foothold, the bottoms are studded with adjustable steel rivets. The adjustable steel rivets of the 1910 model Steel Shoes add the finishing touch of perfection. Practically all the wear comes on these steel rivets. When steel rivets wear down you can instantly replace them with new rivets. And the rivets at the tip of toe and ball of foot are the only ones that wear. Steel Shoes never go to the Repair Shop, for there's nothing to wear but the rivets. And the Steel Soles shed mud almost as easily as they shed water. The cost is only 30 cents for 50 extra steel rivets. No other repairs are ever needed. The uppers are made of the very best quality of pliable waterproof leather, and firmly riveted to soles. There is greater strength and longer service and more foot comfort in Steel Shoes than in any other working shoes in existence. It's in the steel and the pliable leather, and the way they are put together.

### Low Prices on Steel Shoes

Sizes, 5 to 12. 6 inches, 9 inches, 12 inches and 16 inches high. Steel Shoes, 6 inches high, \$2.50 a pair; better grade of leather, \$3.00 a pair; extra grade of leather, black or tan color, \$3.50 a pair; Steel Shoes, 9 inches high, \$4 a pair; extra grade of leather, black or tan color, \$5 a pair; Steel Shoes, 12 inches high, \$5 a pair; extra grade of leather, black or tan color, \$6 a pair; Steel Shoes, 16 inches high, \$6 a pair; extra grade of leather, black or tan color, \$7 a pair.

### One Pair Will Outwear 3 to 6 Pairs of Leather Shoes

The comfort of Steel Shoes is remarkable. Their economy is simply astounding! Practically all the wear comes on the rivets in the bottoms, and the rivets can be replaced very easily. Don't sweat your feet in rubber boots or torture them in rough, hard, twisted, shapless leather shoes. Order a pair of Steel Shoes today. Sizes, 5 to 12.

### Order Steel Shoes Today!

We strongly recommend the 6-inch high, at \$3.50 a pair, or 9 inches, at \$5, as they give best satisfaction for general service. In ordering, state size shoe you wear. Enclose \$3.50 a pair for 6-inch high, and the best and most comfortable working shoes you ever wore will promptly be shipped to you. Your money refunded if Steel Shoes are not exactly as represented when you see them. Send today!

N. M. Ruthstein, Sec'y and Treas.

STEEL SHOE CO., Dept. 369 Toronto, Canada

Main Office and Factory: Racine, Wis., U. S. A. Great Britain Factory: Northampton, England

### Order Blank for Steel Shoes

Steel Shoe Co., Dept. 369 Toronto, Can.  
Gentlemen:  
I enclose \_\_\_\_\_ for \$ \_\_\_\_\_  
In payment for \_\_\_\_\_ pair Steel Shoes,  
Size \_\_\_\_\_  
Name \_\_\_\_\_  
Town \_\_\_\_\_ Province \_\_\_\_\_  
County \_\_\_\_\_  
Dealer's Name \_\_\_\_\_

### Throw Away Rubber Boots, Felt Boots and "Arctics!"

Rubber or felt boots heat the feet and make them sweaty and tender. Nothing more uncomfortable or more harmful to the feet. One pair of Steel Shoes will outlast at least three pairs of felt or rubber boots.

### Secret of Steel Shoe Elasticity

Steel Shoes have thick, springy Hair Cushion Insoles, which are easily removable for cleansing and airing. They absorb perspiration and foot odors—absorb the jar and shock when you walk on hard or stony ground. They keep your feet free from callouses, blisters and soreness.

### Steel Shoes Save Doctor Bills

Wear Steel Shoes and you need not suffer from Colds, Rheumatism, Neuralgia, Lumbago, Stiffness of the Joints and other troubles and discomforts caused by cold, wet feet. Keep your feet always warm, dry and comfortable in Steel Shoes. They protect your health and save doctor bills, while adding to your comfort.



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

TERMS—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

**FOR SALE**—Five acres of good half-mile south of Thamesford, with land ten-roomed brick house with furnace. Good barn and stabling. Young orchard. Suitable for poultry farm. H. E. Golding, Thamesford, Ont.

**FOR SALE**—Rubber and leather belting, pulleys, shafting, hangers, iron pipe. All sizes and lengths. Write for free list and prices, stating sizes. Imperial Waste & Metal Co., 7 Queen St., Montreal.

**FOR SALE**—100,000 feet iron pipe—good as new—for water, steam, fencing and fence posts, drains, etc. Any size. Write for prices, stating sizes. Imperial Waste & Metal Co., 13 Queen St., Montreal.

**FOR SALE**—Seed barley, O. A. C. No. 21. Good sample, pure and clean, at \$1 per bush. Also emmer; good sample, clean, 75 cents bush. Our barley won first prize in field-crop competition (Mt. Forest) 1907 and first prize at fall fair (Mt. Forest) 1907, 1908 and 1909. Chester Nicholson, Mt. Forest, Ont.

**LANDS** for sale—640 acres of fine wheat lands, near Belle Plaine, on the Canadian Pacific Railway between Moose Jaw and Regina, 2½ miles from elevator and village. A great bargain to close an estate, and can be sold on good terms. No reasonable offer refused. It has about 100 acres already under cultivation, and nice buildings on it. For particulars apply to Messrs. Seaborn & Taylor, solicitors for Reading Estate, Moose Jaw, Sask.

**O. A. C. No. 21 Barley.** Another grand lot now ready. I increased one pound to nine hundred bush, in three crops. Filled eighty-five orders last spring. One dollar. Jno. Elder, Hensall, Ont.

**PRACTICAL** working farmer to take charge. Must thoroughly understand the care of stock. State experience and salary, with references. Apply: Box, Farmer's Advocate, London, Ont.

**RESPONSIBLE** agents wanted—Heavy Woven Fencing, Gates, Coiled and Barbed Wire, Stays and Locks. Write for agents' prices. National Wire Fence Co., Prescott, Hamilton and Walkerville. Write to Prescott, Ont.

**SEED** Oats for sale—Thousand-Dollar oats at 80c per bush. Chas. W. Moser, Box 702, Berlin, Ont.

**WANTED**—Siberian oats for seed. E. G. Barker, Celina, Ohio.

**WANTED**—Girl for general housework. Good wages. Good home. Every convenience. Small family. Railway fare paid. Apply: Mrs. Lester Weaver, Hespeler, Ont.

**WANTED**, married man, with small or no family, who thoroughly understands the care and feeding of all kinds of farm stock, and make himself generally useful. Apply: Box 73, South Woodlee, Ontario.

**YOUNG** men with small capital. Good profits await you in sunshine, mild climate. Vancouver Island offers opportunities in business, professions, fruit-growing, poultry, farming, manufacturing, lands, timber, mining, navigation, fisheries, new towns. For authentic information, free booklets, write Vancouver Island Development League, Room B102 Law Chambers Bldg., Victoria, B. C.

**200-ACRE** farm for sale. One of the best in County of Simcoe. 45 acres is solid hardwood bush. Excellent soil. Fine large brick house. New barns built last year—one 45 x 90, the other 35 x 70. Good water system. Located three miles from town. Anyone looking for a high-class farm should write or see D. Horrell, Midland, Ont.

**Delhi Tannery** Custom robe and fur tanned hide or horse hide you want tanned or made into a robe or a fur coat, or have any kind of hides, skins or furs you want tanned, send them to me and have them dressed right. **B. F. BELL, DELHI, ONT.**

When Writing Mention The Advocate

## A Talk On Telephones!

For twenty-five years the "Bell" monopoly refused to supply the farmer with Telephone service, and ridiculed his efforts to furnish himself with this utility. The monopoly spared no effort to discourage the building of rural lines, and placed every obstacle in the way of those farmers who were progressive enough to construct their own system.

As a result of the educational policy instituted by Independent Telephone men and manufacturers in opposition to the "Bell" monopoly, it is now possible for every farming community to own and operate a telephone service at a minimum cost.

Iowa, which has a population approximating to that of Ontario, has nearly twice as many telephones as there are in the whole Dominion of Canada, the majority of these being rural systems organized by the farmers themselves. When the "Bell" had a monopoly in Iowa, up to 1896, there was not a farm telephone in this State.

The Canadian Independent Telephone Association will help the farmers of Ontario to accomplish what has been done in Iowa, and will furnish all the necessary information to enable them to organize a company, or establish a system under the "Local Municipal Telephone System Act, 1908."

The Canadian Independent Telephone Association does not sell telephones or supplies, therefore in accepting its assistance you are not placing yourself under an obligation to purchase from any particular manufacturer or supply house.

If you are interested, write to the  
**SECRETARY-TREASURER**  
**Francis Dagger,**  
21 Richmond St., W.,  
Toronto, Ont.

### PRIME SEED CORN FOR SALE

Our own growth. White Cap Yellow Dent, Early Leeming, Pride of the North, King of the West, Bailey, Compton's Early. Guaranteed the best that can be found. Write for prices.

**L. C. PALMER, Kingsville, Essex Co.**

**For Sale: A PURE ST. LAMBERT BULL**  
16 months old. Solid color. Dam Adelaide of Glen Rouge 187855; sire Exile Roster King 59326. For particulars address: **F. A. Rolph, Glen Rouge Farm, Markham, Ont.**

## Victor Herbert works and plays for the Edison Phonograph

Victor Herbert has written some of the most popular music produced by an American composer. The Edison Phonograph makes the best of it available for you.

Victor Herbert has trained one of the best orchestras in this country. Its music is reproduced upon Edison Records.

Victor Herbert is musical adviser to the National Phonograph Company. No other sound reproducing machine has the advice of so distinguished a musician as Mr. Herbert.

This is just one of the many things which Mr. Edison is doing to make the Phonograph the most perfect music reproducing machine in the world. You can enjoy it at an expense so small that you cannot afford long to hesitate. Hear the Edison Phonograph today. Hear it play Amberol Records; hear it play Victor Herbert's music, and then you will know why Mr. Edison said "I want to see an Edison Phonograph in every home."



Edison Phonographs - - \$16.50 to \$162.50  
Edison Standard Records - - - - 40c  
Edison Amberol Records  
(twice as long) - - - - 65c  
Edison Grand Opera Records - - - - 85c

There are Edison dealers everywhere. Go to the nearest and hear the Edison Phonograph play both Edison Standard and Amberol Records. Get complete catalogs from your dealer or from us.

**NATIONAL PHONOGRAPH CO.**  
100 Lakeside Avenue, Orange, N. J., U. S. A.

The electrically-welded, solid-piece frame gives strength and stiffness to

## Peerless Farm and Ornamental Gates

We build Peerless Gates to last a lifetime—handy, convenient and attractive. They remain staunch and rigid through all kinds of rough usage. The frame is

**THE BANWELL HOXIE WIRE FENCE CO., Ltd., Box B, Hamilton, Ont., Winnipeg, Man.**

Aberdeen-Angus bulls, fit for service, are advertised for sale by James Sharp, Rookside, Ont., near Cheltenham, C. P. R., and G. T. R.

The attention of fruit-growers, and farmers generally, is called to the advertisement of prepared spraying mixtures, Neco Soap and Bordeaux, the former a remedy for sucking insects, and the latter a fungicide. Spraying has come to be indispensable to successful fruit-growing, and orchards rightly managed are profitable.

## CIVIL SERVICE

The next examination will be held in May, 1910. Get ready for it. We give you instruction in the full course for regular examination: Writing, spelling, arithmetic, grammar, composition, transcription, British, Canadian and French History, typewriting. Also in optional subjects if desired. Bookkeeping and shorthand. Fee good until you pass. Write for information to-day.

**Canadian Correspondence College,**  
Dept. E. TORONTO, CAN. Limited

## BOOK REVIEW.

### SOIL MANAGEMENT.

The fact that agriculture is coming to have a literature of its own, for the most part admirable in design and execution, dealing with its vast range of principles and practice, is altogether hopeful. It means that farming is taking its rightful place in the estimation of thinkers. Some twelve years ago, Dr. L. H. Bailey, now head of the New York College of Agriculture at Cornell University, began, with the assistance of different specialists, the classification and interpretation of the facts of agriculture, in a Rural Science Series designed for popular reading and general use by farmers and others. About two dozen volumes have already appeared. He has now projected another line of more advanced books, to be called The Rural Text-book Series, for classroom work, which will be of special value in consultation and reference. The first volume is before us, and deals comprehensively with the principles of soil technology and their application in practice. In other words, it aims to present in an orderly way the systematic knowledge available of the soil. The authors are Professors T. O. Fippin, B. S. A., and T. L. Lyon, Ph. D., of the New York College of Agriculture. Its sub-title is "The Principles of Soil Management." The former series also began with a work on the soil, and this is right, for the soil, as Dr. Bailey observes, is our greatest natural resource, and a well-maintained soil is the first essential to agricultural progress and human prosperity. Very properly, a large section of the book is devoted to soil-moisture control, now recognized as one of the most important problems of agriculture. The present remarkably-fine winter over a large area of the country, suggests that an extended reference to the beneficial effects of snow-fall on the land would have been appropriate, but the book contains so much in its over 500 pages, that little exception can be taken. The work is generously illustrated, and is published by The Macmillan Co., of Toronto, Canada, or may be ordered through this office at \$1.75.

## GOSSIP.

Mr. Sinclair, manager of Lord Roseberry's Home Farm, Dalmeny, Scotland, has acquired, on behalf of a Canadian breeder, from David R. Arnot, Mains of Edzell, the five-year-old cow Violet III. of Congash (39314). She was bred by John McAinsh, Congash, is of the very old family of Victorias of Balwilly, and by Dispatch of Wyrley (21740), which is by the 140-guinea son of the noted Delamere. Violet III. was third in 1908 at the Highland, and second at the Royal English Shows, while at the Stirling Show of Highland she was first in her class.

## MORE HOLSTEIN-FRIESIAN COWS ACCEPTED IN CANADIAN RECORD OF PERFORMANCE.

Sherwood Edna's Faforit (6199), at three years: 12,605.25 lbs. milk, and 394.73 lbs. fat, in 365 days; average per cent. fat, 3.13. Owned by C. H. Shaver, Marysville, Ont.

Mary Anderson 3rd (7262), at two years: 9,385.5 lbs. milk, and 358.07 lbs. fat, in 358 days; average per cent. fat, 3.82. Owned by G. W. Clemons, St. George, Ont.

Laura Albino De Kol (7344), at two years: 9,074 lbs. milk, and 269.02 lbs. fat, in 365 days; average per cent. fat, 2.96. Owned by R. Honey, Brickley, Ont.

Lulu Glaser (5099), at four years: 12,499.987 lbs. milk, and 463.173 lbs. fat, in 260 days; average per cent. fat, 3.70. Owned by S. Lemon, London, Ont.

Julia Arthur 2nd (6977), at three years: 9,919 lbs. milk, and 312.17 lbs. fat, in 365 days; average per cent. fat, 3.16. Owned by G. W. Clemons.

Lilly Westwood 2nd (3966), at full age: 11,593.35 lbs. milk, and 370.59 lbs. fat, in 323 days; average per cent. fat, 3.19. Owned by Thos. Hartley, Downsview, Ont.

Lucy Staple (7850), at two years: 10,321.5 lbs. milk, and 381.06 lbs. fat, in 342 days; average per cent. fat, 3.70. Owned by Wm. E. Mason, Tyrrell, Ont.

G. W. CLEMONS, Secretary.

### Make this 60-Day Test of Brantford Roofing—then Test Any Other Make

Write us, or your dealer, for sample of *Brantford Asphalt Roofing*. Place it in water for sixty days. When you remove it, rip open with heavy knife, and you'll find inside—the vital part—perfectly dry, life-like, solid—as before test. Just think of severeness of this test! The result is evidence you cannot overlook. Then make this test with any other Roofing. You'll find the wood pulp—jute or cotton-cloth inside soaked—softened—lifeless. It cannot withstand severe weather, which is, at its worst, not one-twentieth so severe as *Brantford's Test*. Wood pulp is like paper. It acts like paper, when soaked—writs away. How could you expect such a foundation to fight off Roofing Enemies! For resistance, it must depend upon animal fat, grease, or other refuse coating, themselves veritable mines of danger. They evaporate—wear off—expose shameful foundation to awaiting enemies. This coating cannot prevent penetration—protect defenceless insides from harm. But *Brantford Asphalt Roofing Foundation* is one sheet of evenly-condensed, long-fibred *pure Wool*, with life and body of its own. A secret mixture of *Asphalt* is forced into it, soaking every fibre. After mixture dries, foundation possesses resisting-power no amount of soaking or bending can effect.



## Brantford Roofing

after special Water-proof Coating, into which Silica Sand is rolled under pressure, is applied, becomes a solid mass of resistance. It is weather, acid, alkali, frost, water-proof. Cannot freeze, crack or melt. Wonderfully pliable. Brantford has but one cost—first. Write for free Book and Samples.

**Brantford Asphalt Roofing, No. 1, 2, 3.**  
**Brantford Rubber Roofing, No. 1, 2, 3.**  
**Brantford Crystal Roofing, one grade only, (heavy).**  
**Mohawk Roofing, one grade only.**  
**BRANTFORD ROOFING CO., Ltd., BRANTFORD, CAN.**

ulture is coming to its own, for the most design and execution, range of principles together hopeful. It s taking its rightful ntion of thinkers.

Dr. L. H. Bailey, New York College of University, began, different specialists, interpretation of re in a Rural Sci- for popular reading farmers and others. lumes have already w projected another books, to be called k Series, for class- ill be of special and reference. The us, and deals com- principles of soil application in prac- s, it aims to pre- way the systematic of the soil. The s T. O. Fippin, B. on, Ph. D., of the Agriculture. Its ciples of Soil Man- er series also began soil, and this is as Dr. Bailey ob- natural resource, soil is the first tural progress and Very properly, a ook is devoted to now recognized as tant problems of ent remarkably-fine ea of the country, ended reference to snow-fall on the appropriate, but much in its over exception can be generously illus- trated by The Mac- e, Canada, or may s office at \$1.75.

ns.—We do not think it wise to at- tempt to break up and seed down at once again, unless the field is indis- pensably required for pasture. However, if this is your object, we can recommend nothing more likely than Prof. Zavitz's mixture of oats, 1 1/2 bushels; Early Amber sugar cane, 30 pounds, and common red clover, 7 pounds per acre. This crop, sown in spring, is supposed to be ready for pasturing in about six weeks' time. The oats come on first, then the sugar cane, and, finally, the clover. If you want to secure a catch of clover, do not graze the field too close, nor very late in the fall. Possibly some timothy, al- sike, and even a little alfalfa might be added to the above mixture. For our part, we would prefer to take off a crop of rape, corn, or roots, then seed down the following year with the standard permanent-pasture mixture so often recom- mended through these columns.

AGE TO BREED HEIFERS—DIS- POSING OF OLD COWS. Being a subscriber of your paper for a few years with entire satisfaction, and having had all questions asked answered with good results, I am going to ask a few more.

1. What is Mrs. Russell Sage's proper address?  
2. What is the correct age to breed a heifer?  
3. Does it stunt a heifer's growth to breed her from one year to eighteen months?  
4. Is it wise to keep a dairy cow after she passes fifteen years, and what is the proper age to do away with dairy cows?

MRS. S. MacM. Ans.—1. We infer this information is desired in order that a request for a contribution to some charitable or beneficent purpose may be addressed to her, and would recommend that postage be saved, as the secretaries of millionaire givers are accustomed, we presume, to pigeon- hole or discard such letters, many thou- sands of which must be yearly received. Besides, even if there were a chance of success, why should a community com- promise its independent self-respect by begging assistance from persons on whom it has no possible claim?

2 and 3. It depends on her develop- ment and the purpose for which she is kept. A well-grown heifer of the dairy breeds may be satisfactorily bred at eighteen months, producing her first calf at about two years and three months of age. If this is done, she should be milked quite a while before breeding again, not dropping her second calf until three years and a half of age. This is believed to help develop a persistent and deep-milking habit. While this latter point is probably well grounded, we confess that for our own part, we have never been convinced that it was wise to have the first calf dropped before two and a half or two and three-quarter years of age, with the second, say, fif- teen months later. Persistent early breeding, unless accompanied with extra- good feeding, care and selection, is liable, it seems to us, to tend toward degeneracy in size and vigor. It is practiced, however, by many breeders, some of whom occasionally have heifers calving at two years, or even less, espe- cially when desiring to make a good showing in heifer classes at exhibitions.

4. Yes; if her teeth are good, and she is milking well; more especially if she is a good breeder of producing stock. The proper time to dispose of a cow is just when you can fatten her before her mouth gives out, or if it does fall, she may be fattened on soft feed. No period can be set, but usually this time comes before the age of fifteen years. There are, of course, some old dairy cows which it is hardly worth trying to beef, and these may be milked as long as they yield profitably.

(6199), at 5 lbs. milk, and 5 days; average per by C. H. Shaver, (7262), at two and 358.07 lbs. ge per cent. fat, W. Clemons, St. (7344), at two and 269.02 lbs. ge per cent. fat, toney, Brickley, at four years: and 463.173 lbs. ge per cent. fat, London, London. (6977), at three and 312.17 lbs. ge per cent. fat, Clemons. (966), at full age: 370.59 lbs. fat. cent. fat, 3.19. ey, Downsview, at two years: 381.96 lbs. fat. cent fat, 3.70. Tyrrell, Ont. Secretary.

QUESTIONS AND ANSWERS. Miscellaneous.

ANNUAL AND PERMANENT PASTURE.

Have about two acres of a pasture lot in sod at present time that is getting run out for pasture; have been using it also for feeding turnips on, etc., for four years, so it must be in good condition, being clay loam. What can I sow on it to give me the most pasture for the coming season and seed it down also. I use it for night pasture, and pigs, as it is near the barn. M. A.

Ans.—We do not think it wise to at- tempt to break up and seed down at once again, unless the field is indis- pensably required for pasture. However, if this is your object, we can recommend nothing more likely than Prof. Zavitz's mixture of oats, 1 1/2 bushels; Early Amber sugar cane, 30 pounds, and common red clover, 7 pounds per acre. This crop, sown in spring, is supposed to be ready for pasturing in about six weeks' time. The oats come on first, then the sugar cane, and, finally, the clover. If you want to secure a catch of clover, do not graze the field too close, nor very late in the fall. Possibly some timothy, al- sike, and even a little alfalfa might be added to the above mixture. For our part, we would prefer to take off a crop of rape, corn, or roots, then seed down the following year with the standard permanent-pasture mixture so often recom- mended through these columns.

AGE TO BREED HEIFERS—DIS- POSING OF OLD COWS.

Being a subscriber of your paper for a few years with entire satisfaction, and having had all questions asked answered with good results, I am going to ask a few more.

- 1. What is Mrs. Russell Sage's proper address?  
2. What is the correct age to breed a heifer?  
3. Does it stunt a heifer's growth to breed her from one year to eighteen months?  
4. Is it wise to keep a dairy cow after she passes fifteen years, and what is the proper age to do away with dairy cows?

MRS. S. MacM. Ans.—1. We infer this information is desired in order that a request for a contribution to some charitable or beneficent purpose may be addressed to her, and would recommend that postage be saved, as the secretaries of millionaire givers are accustomed, we presume, to pigeon- hole or discard such letters, many thou- sands of which must be yearly received. Besides, even if there were a chance of success, why should a community com- promise its independent self-respect by begging assistance from persons on whom it has no possible claim?

2 and 3. It depends on her develop- ment and the purpose for which she is kept. A well-grown heifer of the dairy breeds may be satisfactorily bred at eighteen months, producing her first calf at about two years and three months of age. If this is done, she should be milked quite a while before breeding again, not dropping her second calf until three years and a half of age. This is believed to help develop a persistent and deep-milking habit. While this latter point is probably well grounded, we confess that for our own part, we have never been convinced that it was wise to have the first calf dropped before two and a half or two and three-quarter years of age, with the second, say, fif- teen months later. Persistent early breeding, unless accompanied with extra- good feeding, care and selection, is liable, it seems to us, to tend toward degeneracy in size and vigor. It is practiced, however, by many breeders, some of whom occasionally have heifers calving at two years, or even less, espe- cially when desiring to make a good showing in heifer classes at exhibitions.

4. Yes; if her teeth are good, and she is milking well; more especially if she is a good breeder of producing stock. The proper time to dispose of a cow is just when you can fatten her before her mouth gives out, or if it does fall, she may be fattened on soft feed. No period can be set, but usually this time comes before the age of fifteen years. There are, of course, some old dairy cows which it is hardly worth trying to beef, and these may be milked as long as they yield profitably.

They Pass the British Government's Acid Test for Galvanizing

Do you know that PRESTON Safe-Lock Shingles are the ONLY kind you can buy that are made according to British Government Specifications for Galvanized Sheet Metal?

The British Government is the most particular buyer in the world. The sheet metal it buys for public works must be made and galvanized far better than ordinary sheet metal.

Each sheet must be carefully sheared to exact dimensions, thoroughly cleaned, and afterwards galvanized with best Virgin Spelter, which must consist of not less than 98 per cent. pure zinc—Extract from British Government Specifications.

Each steel sheet is cut to the exact size of a PRESTON Shingle before it is galvanized with 98 per cent. pure zinc. In this way even the edges are thoroughly galvanized.

The sheets must be heavily and uniformly coated with zinc.—Ex. from B. G. S.

Ordinary galvanized sheets are not nearly so heavily coated with zinc as those galvanized according to British Government Specifications. To secure a thin coating the spelter is heated to a very high temperature. When the steel sheets are dipped into it only a small portion adheres to the surface.

Your eye cannot tell a thinly coated sheet from one heavily coated. That is why there are such a lot of cheap steel sheets on the market. They are considered good enough for ordinary shingles. But they couldn't pass the rigid specifications required of the steel sheets we use for PRESTON Shingles.

The steel sheets for PRESTON Safe-Lock Shingles are dipped into spelter kept at a lower and correct temperature. The sheets thus become very heavily coated. And, the coating is made perfectly smooth and even.

The sheets must stand bending without cracking the galvanizing.—Ex. from B. G. S.

Unless the steel sheets for PRESTON Shingles were of perfect quality and galvanized according to British Government Specifications not only would the galvanizing crack, but the metal also, where our top lock is folded to produce three thicknesses of metal. Look at a PRESTON Safe-Lock Shingle and you'll find the steel and the galvanizing perfect at our top lock as well as everywhere else on the shingle.

THE ACID TEST

The galvanizing must be able to stand the test of dipping the sheet into a solution of sulphate of copper at a temperature of 60 degrees Fahrenheit, allowing it to remain in the solution for the space of one minute, and then withdrawing it and wiping it clean. The galvanizing must allow of this being done FOUR times without

This Acid Test is more severe on the galvanizing than twenty years of Canadian weather. You see, sheet steel galvanized according to British Government Specifications is galvanized to last. PRESTON Shingles are good for twice the service of ordinary galvanized shingles.

The construction of PRESTON Safe-Lock Shingles is far ahead of all others.

Other shingles merely slip or slide together at the sides and are easily pulled apart. PRESTON Shingles are securely locked together at the sides on the principle of the "sailor's grip." The heavier the strain, the firmer the grip. You cannot pull them apart.

The top lock of PRESTON Shingles is TWICE as strong as our wonderfully secure side lock.

The top of the shingle is where the greatest strain falls. PRESTON Safe-Lock Shingles have a top lock consisting of three thicknesses of sheet steel, so that they can easily withstand the strain due to shrinking of sheeting or settling of building.

No other shingles can have such a top lock, because this feature is patented by us. The top lock of most shingles isn't as strong as the side lock of ours.

Lightning causes the loss of thousands of dollars each year to Canadian farmers. With every PRESTON roof you get a FREE Lightning Guarantee which secures you against this terrible destroyer.

You do not get a Free Lightning Guarantee with other shingles. Neither do you get shingles safe-locked on all four sides. Nor shingles with the nailing fully protected against the weather. Nor shingles made according to British Government Specifications. Nor shingles so easy to lay.

We have just issued a new booklet "Truth About Roofing." We should charge something for this, as it contains information of real value to anyone who has a building to roof. But we will send it FREE as a reward to all who cut out, fill in and mail the coupon to us. Just you send it to-day.

METAL SHINGLE AND SIDING CO., LIMITED

Head Office, Queen Street Factory, PRESTON, ONT. Branch Office and Factory, Montreal, Que.



showing signs of a reddish deposit of Copper.—Ex. from B. G. S.

The reddish deposit shows up the thinly galvanized spots. Ordinary galvanized sheets, treated to this test, would be thickly spotted with reddish deposits. Yet you are asked to pay the same prices for shingles that cannot pass this test as you are for PRESTON shingles, which will easily do so.

PRESTON SAFE-LOCK SHINGLES. Please send me your new booklet, "Truth About Roofing." I am interested in roofing and would like complete information about PRESTON Shingles. Name, P.O. Address, County, Prov.

MAKE YOUR SAVINGS WORK HARDER. Don't be contented to let your Savings earn the usual 3% interest. Make them work harder for you—make them earn 3 1/2%. They will earn 3 1/2% for you in our Savings Department. Their safety is secured by over \$2,000,000 assets. If you have \$100 or more to invest at 4% ask us about our Debentures. 3 1/2% Agricultural Savings 4% & Loan Co., 109 Dundas St., London, Ont.

## FRUIT GROWERS

Do you want other fruit growers to tell you how

### Nico Soap AND Prepared Bordeaux Mixture

helped them to turn insect destruction into profitable production?

Bordeaux Mixture is a fungicide, and Nico Soap is an absolutely sure death to sucking insects.

Information will be sent you if you send your address to

**BLACKIE BROS.**  
Halifax, Nova Scotia.  
OR  
**A. S. HATFIELD**  
Kaladen, British Columbia.

## GRAND TRUNK RAILWAY SYSTEM

### ONE-WAY COLONIST RATES

Vancouver, B. C.  
Seattle, Wash.  
Portland, Ore. } \$41.05

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Los Angeles  
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MARCH 1st TO APRIL 15th

Above rates are one-way second-class, and apply from LONDON. Proportionate rates from all stations in Ontario.

Secure tickets and full information from

E. DE LA HOOKE, City Pass. Ticket Agent.  
E. RUSE, Depot Agent.

Just sit down and write us for full particulars of the best business proposition you are likely to hear this year. Let us tell you, in plain words, how very little money will start you in the profitable business of poultry-raising The Peerless Way. Let us show you why it will pay you well to

adopt the Peerless methods, to make use of the Peerless Board of Experts—pay you well, and profit you speedily.

Scores and hundreds—ten thousand people in fact—all over Canada, are following The Peerless Way to their profit. More than eleven million dollars' worth of eggs were sold in Canada last year. Yet with all this output prices stay high for every sort of good poultry and eggs. The market is far bigger than the present product—and it grows bigger day by day. Poultry-raising is the best business for any farmer, any farmer's child. Pays better for the time and money invested. Profit is sure. Isn't over-crowded—and never will be.

**Poultry ought to be a side-line on every farm—**

The poultry-crop is the one crop that never fails. Every farmer certainly ought to make poultry a 'side line, at least—it is a certain profit for him, no matter how bad a year he may have with his other crops. And the Peerless customer need feel no worry about finding a market for all he wants to sell in the way of poultry or eggs. We look after that for him. We find him a buyer who pays the best market prices in spot cash.

**Your credit with us makes it very easy to start—**

Your credit is perfectly good with us. You can equip yourself fully for successful poultry-raising, and you don't need ready money to do it. We trust you, and we will make the terms so easy for you that you will never feel the outlay. In fact a Peerless Order pays for itself, and quickly, too.

We carry ample stocks in our big distributing Warehouses at Winnipeg, Regina, Calgary, Edmonton and Vancouver, for the convenience of our Western friends. Address all letters to Head Office at Pembroke, Ontario. They will receive prompt attention.



## Sixty Years of Success

WE ARE this year celebrating the 60th Anniversary of the establishment of this business, and we are justly proud of its record, one which has been attained by very few seed houses in America.

The excellence of our stocks, which are carefully tested for purity and germination, our long experience and connection with the best growers in the world, prices reasonable consistent with quality, and the great care exercised in every detail of our business is the secret of our success; this, with our largely increasing trade, the trade of many that we have held year after year, and the many unsolicited testimonials from our customers, substantiates our claim to the "Oldest and Most Reliable Seed House in Canada."

No better seeds can be procured anywhere, even at ten times our price.

All we ask from those who have not patronized us is a trial.

**FREE**—Our handsomely illustrated 104-page catalogue of Vegetable, Farm and Flower Seeds, Plants, Bulbs, Poultry Supplies, Garden Implements, etc., for 1910. Send for it.

**JOHN A. BRUCE & CO., Ltd., Hamilton, Ont.**

Kills the Bugs.  
Feeds the Plant.



## BUG DEATH

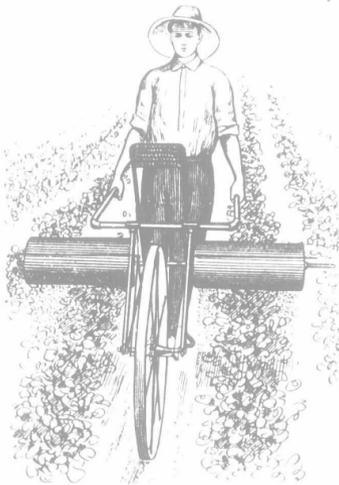
The up-to-date insecticide, 14 years it has stood the test. Use BUG DEATH and prove, while you kill the bugs, you improve the quality and increase the yield of your crops. BUG DEATH is sold in convenient packages as follows: 1-lb. pk., 15c.; 3-lb. pk., 35c.; 5-lb. pk., 50c.; 12½-lb. pk., \$1.00; 50-lb. pk., \$3.75; 100-lb. pk., \$7.00.

## THE FARNHAM DUST MOTOR

Applies BUG DEATH in dry form, two rows at one time as fast as a man can walk. If your dealer does not keep BUG DEATH, send to us, and we will have it shipped to your nearest station free of freight charges.

**BUG DEATH CHEMICAL COMPANY, LIMITED**  
St. Stephen, New Brunswick.

**PLEASE MENTION THE FARMER'S ADVOCATE.**



**PEERLESS users get valuable help and service free**

Besides finding a buyer for our customers' poultry-products (which we do free of any cost to you) our Board of Experts stands ready always to advise, counsel, help with practical suggestions—free, entirely so, to Peerless users. These practical men have developed the greatest poultry business in Canada—The Poultry Yards of Canada Limited. Long experimenting in the hatcheries of this great plant brought the Peerless to perfection, and proved it as the one successful incubator for use in every section of the Dominion.

**More than 10,000 PEERLESS users are successful—**

Poultry-raising with the difficulties taken out of it—that is the reason why The Peerless Way has proved profitable for over ten thousand people, scattered all over Canada. There is not a reason on earth why it would not do as much for you as it has for the most successful of them. No matter where your farm is, you can do well The Peerless Way—and you won't need to depend much on plain farming, either.

**Send right away for interesting offer and FREE very valuable information.**

You will know why The Peerless Way is the way to get profit from poultry, once you have read the big and plain-spoken free book we want you to ask for. With the book will come an offer to outfit you for poultry profit on terms that will meet your wishes and fit your means. Please write and ask for this now—make your start now—it will pay you to.

## GOSSIP.

Dalgety Bros. have lately sold to Charles Dean & Sons, Brinsley, Ont., the big, thick, quality Clydesdale stallion, Pentland Pride (imp.) (14780), bay, four-year-old son of the noted sire, Prince of Brunstane, by the Cawdor Cup champion, Prince Alexander, dam by the renowned Prince Sturdy. He is a horse up to a ton in weight, of grand character and quality, and exceedingly smooth. He was first as a yearling and as a two-year-old at Dalkeith, and third at Edinburgh as a two-year-old, in a very strong class. He is the kind of sire that is calculated to do much good for the breeders in North Middlesex.

Walnut Stock Farm, the property of Duncan Brown & Sons, Essex County, Ont., two miles from Iona Station, on the Michigan Central and Pere Marquette Railroads, is the home of a richly-bred herd of Shorthorn cattle and a splendid flock of Oxford Down sheep. The Shorthorns represent the Bruce Mayflower, Strathallan, and Campbell Rosebud families. Seaweed (imp.) is a Bruce Mayflower, by the great bull, Luxury. Sea Gem is a daughter, by Rosy Morning (imp.). Another daughter is a yearling, by Sittytton Marquis, an Amaranth-bred son of the great Marquis of Zenda (imp.). Scottish Rose 2nd (imp.) is a Campbell Rosebud, by Lovat Champion. Two daughters of hers are by Imp. Spector and Imp. Lord Lieutenant. Pan Strathallan is a Strathallan, by Lord of the Manor 7th; daughters of hers are by Sittytton Marquis. The present stock bulls are Trout Creek Wonder =56167=, by Imp. Prince Sunbeam, dam Lavender Rose 2nd (imp.), a Cruickshank Lavender, by Prince of Sanquhar. He is a most richly-bred Lavender, and a grand sire. The other is Prince Missie =57658=, by Imp. Favorite, dam Missie 159th (imp.), by Spicy Robin. There are three young bulls about nine months of age, one by Sittytton Marquis, out of Sea Gem; another by same sire, out of Sea Weed (imp.), the dam of Sea Gem. Another is a Strathallan, by the same sire, a thick, straight trio of young bulls. Anything in the herd is for sale. In Oxford Down sheep, there are for sale twelve ewe lambs, two aged and two ram lambs. There are also Clydesdale and Standard-bred horses, mares and fillies.

The Glenhurst herd of Ayrshires, property of James Benning, Williamstown, Ont., to be sold by auction on April 20th, were never seen in better form than at present. This is one of the best Canadian-bred herds in the Dominion, and has been the foundation of several splendid herds, both in Canada and the Eastern and Western States, and was never stronger as a herd of heavy-producers and high-testers. Thirty cows have had an average test of 4.4 per cent. butter-fat. There are now 75 head in the herd, all of which are full of the richest of breeding. The present stock bull, Drongan Mains Guarantee (imp.) 26637, sire Whitehill Prince Alexander, dam Violet of Drongan Mains 10028, is one of the finest two-year-old bulls ever imported; a dozen young bulls of his get, from six to twelve months old, go to show his prepotency as a sire. In this herd are to be seen ten females of the famous Floss family. Floss of Glenhurst 9947, half-sister to White Floss 5664, champion female at Chicago World's Fair, with her four daughters, a four-year-old, a three-year-old, a two-year-old and a yearling, are a rare bunch of heifers; also Floss 3rd of Glenhurst 16313, another half-sister of White Floss 5664, with her three daughters, a three-year-old, a two-year-old, and a yearling, showing what grand breeders these cows are. There are twenty more young cows due to freshen this spring, which are a credit to any herd, large, strong cows, carrying large, level vessels, with splendid teats. There are also thirty heifers under two years old, mostly white in color, a grand lot, which will, from appearances, make records for themselves, both in the showing and at the pail. Breeders and dairymen wishing to improve their milking stock, should attend this sale. For catalogues, which will be out first of March, apply to James Benning, Williamstown, Ont.



If you have a wagon needing new wheels, get **DOMINION LOW, WIDE-TIRE STEEL WHEELS.** Stronger, lighter, cost little, save roads and make pulling easier. Fit any axle. Distributes strain equally. Out-last wooden wheels many times. Guaranteed not to break in rocky roads or coldest weather.

The wide tires and low wheels of **DOMINION HANDY WAGON** make pulling easy. It saves half in time and labor in loading and unloading. Low and convenient—no high lifting. Can be changed into platform wagon in a few minutes. Enables one man to do work of two. Lasts a lifetime. Parts arranged for easiest draft. Write for free booklet on Wheels and Wagon. 5 **DOMINION WROUGHT IRON WHEEL CO.,** Orillia, Ontario. Limited



**Do You Intend Building a House, Barn, Greenhouse or Silo?**  
Send us your list of **LUMBER (rough or dressed), LATH, SHINGLES, DOORS, SASH, TRIM,** or anything in woodwork for building construction, and we will quote you promptly.  
**John B. Smith & Sons,** LIMITED, TORONTO, ONTARIO. Established 1851.

A clergyman went to have his teeth fixed by a dentist. When the work was done, the dentist declined to accept more than a nominal fee. The parson, in return for this favor, insisted later on the dentist accepting a volume of the reverend gentleman's own writing. It was a disquisition on the Psalms, and on the fly leaf he had inscribed this appropriate inscription, "And my mouth shall show forth thy praise."

**Caught Cold By Working In Water.**

**A Distressing, Tickling Sensation In The Throat.**

Mr. Albert MacPhee, Chignecto Mines, N.S., writes:—"In Oct., 1908, I caught cold by working in water, and had a very bad cough and that distressing, tickling sensation in my throat so I could not sleep at night, and my lungs were so very sore I had to give up work. Our doctor gave me medicine but it did me no good so I got a bottle of Dr. Wood's Norway Pine Syrup and by the time I had used two bottles I was entirely cured. I am always recommending it to my friends."

Dr. Wood's Norway Pine Syrup combines the potent healing virtues of the Norway pine tree with other absorbent, expectorant and soothing medicines of recognized worth, and is absolutely harmless, prompt and safe for the cure of Coughs, Colds, Bronchitis, Croup, Sore Throat, Pain or Tightness in the Chest, and all Throat and Lung Troubles.

Beware of imitations of Dr. Wood's Norway Pine Syrup. Ask for it and insist on getting what you ask for. It is put up in a yellow wrapper, three pine trees the trade mark, and the price 25 cents.

Manufactured only by The T. Milburn Co., Limited, Toronto, Ont.

**GOSSIP.**

As a last call for the dispersion sale of pure-bred and high-grade Holsteins, belonging to Nelles & Woodley, Boston, Norfolk Co., Ont., to take place on Wednesday, March 9th, we are requested to intimate that, in case of a stormy day, the sale will be conducted under cover, and that there will be, positively, no reserve.

The Quebec branch of the Holstein-Friesian Association of Canada, will hold their annual meeting, for election of officers, etc., on March 3rd, at Dr. Harwood's, Les Chenaux Farm, near Montreal, and will be the guests of the Doctor from the time of leaving Montreal to the return there. Other trains coming from the East and West will be met at Vaudreuil, either C. P. R. or G. T. R.

Official records of 156 Holstein-Friesian cows were accepted by the American Holstein Association, from January 16th to January 24th, 1910. This herd of 156 animals, of which a trifle over one-third were full aged cows, produced in seven consecutive days, 61,608.2 lbs. of milk, containing 2,133.74 lbs. of butter-fat, thus showing an average of 3.46 per cent. fat. The average production for each animal was 394.9 lbs. milk, containing 13.678 lbs. of butter-fat; equivalent to 56.4 lbs. or 27 quarts of milk per day, and nearly 16 lbs. of the best commercial butter per week. No remarkable records are reported for the older classes to aid in producing these fine averages; and again, as in the last issue of these reports, it is the high average quality of the cattle tested that gives such results.

**GLASGOW STALLION SHOW.**

At the Glasgow Spring Stallion Show, February 8th, the principal winners in the Clydesdale class were: Aged class—1, Perfect Motion, by Baron of Buchlyvie; 2, Sir Dighton, by Sir Hugo; 3, Montrave Viceroy, by Hiawatha. Three-year-olds—1, Royal Salute, by Hiawatha; 2, Scott Again, by Lothian Again; 3, Sir Winston, by Hiawatha. Two-year-olds—1, Dunure Footprint, by Baron of Buchlyvie; 2, Cadzow Fashion, by Hiawatha; 3, Royal Record, by Oyama. Yearlings—1, a brown son of Hiawatha; 2, a son of Everlasting; 3, a son of Montrose Mac.

The Cawdor Cup went to the first-prize two-year-old colt, Dunure Footprint, by Baron of Buchlyvie, the reserve being the three-year-old, Montrave Viceroy, by Hiawatha. The Brydon 100-guineas Shield, open only to three-year-olds and aged horses, went to Montrave Viceroy, the reserve being Rennie's Laird of Erskine.

**IMPORTED CLYDESDALES.**

Prominent among the leading importers of Clydesdale horses in Ontario is Alex. F. McNiven, of St. Thomas, Ont. In his stables, two miles west of the city of St. Thomas, just now, are about a dozen head of imported and Canadian-bred mares and fillies, an exceptionally big, choice lot, and exceptionally well bred, among which are several choice show animals, winners in Scotland and winners in Canada. Another shipment from Scotland is expected to land early in March. Among those on hand are such good ones as Lady Grant (imp.) [19784], a brown, rising three, by Macilroy, dam by Prince of Albion. Maggie Ann (imp.) [19577], a bay, rising four, by General Hunter, dam by Gay City. Amelia (imp.) [19573], black, rising two, is by Polar Star, dam by Holyrood's Heir; this is a Guelph winner. Rosie Kerr (imp.) [19578] is a bay, rising two, by Royal Edward, dam by Botanist; this filly is also a Guelph winner. Clyde Park Bay Queen [16461], rising two, is by Keir Democrat (imp.), dam Novan Queen (imp.), by Lord Fauntleroy. This filly was never beaten, winning first at St. Thomas and London, both as a foal and as a yearling. Hiawatha Queen [16421] is a bay, rising two, by Scottish Baron (imp.), dam Keir Diadem (imp.), by Hiawatha. Burgh Starlight (imp.) is a bay four-year-old Shire mare, a big, thick, right good one, by King Albert 3rd, dam by Sir Garnet 3rd. Parties looking for breeding stock should look after these, as they have the kind wanted. The farm is connected with long-distance phone.

**It Won't Rub Off**

VISIT the finest hotels, the costliest homes, and you will find Alabastined walls. Alabastine is used in these palatial places, not because it is the most expensive wall decoration, but because it is the most artistic and effective. An Alabastined wall is a delight to the eye—so soft, velvety and beautiful. It will not rub off or fade. Alabastine is cement, and hardens with age. Its beauty is permanent. It is the most sanitary and inexpensive wall coating known. Alabastined walls are now the general vogue, in cottage and mansion alike. Wall Paper is out of fashion. The sales of Alabastine in Canada have doubled in two years.

**CHURCH'S COLD WATER Alabastine**  
None Genuine without Little Church on Label

**FREE STENCILS**  
To still further popularize Alabastine and again double its sales, we have organized a Decorative Department, and are prepared to offer FREE COLOR SCHEMES and FREE STENCILS to users of Alabastine. Write today for particulars. Our advice is free. Let us help you to beautify your home at a moderate cost.

Please send free particulars of your Color Scheme and Free Stencil offer to

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Street.....  
City..... Prov.....  
The Alabastine Co., Ltd., 31 Willow St., Paris, Ont.

**Don't Sow Your Grain in February**

But order your drill now and get it home and ready for Spring, but before you decide be sure to look into our Leader Drill.

The Leader Seeder has made good, simply because it is built as strong and good as it can be made. So simple, so easy understood, and so nearly automatic is all its operations that anyone who can drive a team can run it, and control all its operations. It does not bunch the grain, but distributes it evenly and uniformly from one end of the field to the other, and every seed is deposited in the ground and properly covered.

Saves seed. Increases yield. Insures crop. Finishes the work as it goes.

**The PETER HAMILTON CO., Limited, PETERBORO, ONT.**

WHEN YOU BUY, BE SURE THAT IT IS A

**Tolton Harrow**

**ALL STEEL** **ALL STEEL**

Section and Flexible All-Steel Harrows with an unequalled record. A large variety suitable for the requirements of any country, made in different widths to suit purchasers. Pre-eminently the most efficient, strongest, and longest-wearing Harrows is our unqualified guarantee. Parties wishing a first-class Harrow will do well to write us direct or apply to the local agent. Address Dept F.

**OUR MOTTO—"Not How Cheap, but How Good."**

**TOLTON BROS., LIMITED, GUELPH, ONTARIO.**

**TRADE TOPIC.**  
REDUCED ONE-WAY SECOND-CLASS COLONIST RATES to California, British Columbia, Mexico, Oregon, Washington, etc., via Grand Trunk Railway System, March 1st to April 15th, inclusive. Full information from Grand Trunk Agents, or address J. D. McDonald, D. P. A., G. T. Ry., Toronto, Ont.



Frictionless Empire

## Our New 25c. Book

is a most interesting and instructive book for dairy-men. It tells the truth about the two standard methods of cream separation. It is the most unbiased book on separators ever published. It gives many pointers worth dollars to you. You can procure one copy of this book if you will fill in, cut out and mail the coupon to us promptly. Extra copies are 25c. Don't miss this new book. Send the coupon immediately. Send it by next mail.

Please send me your new book No. 12 I am interested in dairying and promise to read your book carefully. I have at present ..... (state number) cows.

Name.....  
P. O. Address.....  
County..... Province.....

# Important Facts You Should Know about Cream Separators

There are six important things a cream separator should do in order to be a paying investment.

**First:** It should get all the cream.  
**Second:** It should get the cream in perfect condition.

**Third:** It should save you money.

**Fourth:** It should save you work.

**Fifth:** It should be durable.

**Sixth:** It should make money for you.

Unless a cream separator does every one of these six things it is not a really good cream separator. It is a losing, instead of a paying, investment. It is not the machine for you.

There are a host of machines that are claimed to do these six things. But Empire separators are the only ones that are actually doing the whole six. That's certainly a bold statement. It's the truth, nevertheless.

For example, we will show you how the Frictionless Empire meets these six requirements.

**First:** The Frictionless Empire skims to .02 of one per cent. and often less. That means the loss of only one pound of butter fat in every five thousand pounds of milk, which is equal to the loss of one pound of butter in all the milk a cow gives in one year. The Frictionless Empire gets all the cream.

**Second:** The few smooth skimming parts of the Frictionless Empire are as easily and thoroughly washed as a glass tumbler. This cannot truthfully

be said of skimming devices with corners, slots and crevices that soon get clogged up and cannot be thoroughly cleaned. Cream in perfect condition—cream without a taint—can only be obtained from a separator that can be thoroughly cleaned.

**Third:** The Frictionless Empire gets thirty per cent. more cream than old style methods. The more cream saved the more money saved.

**Fourth:** The Frictionless Empire does the skimming in a small fraction of the time required with old style methods. It saves many hours of work. It almost runs itself. So nearly frictionless that it will run for half an hour after you've completed the skimming unless you use our brake to stop it.

**Fifth:** The very best materials that money can buy are used in the Frictionless Empire. The working parts are perfectly turned—true as a die. They fit together accurately, thus reducing friction and wear close to the vanishing point. You can judge the durability of Empire Separators when we tell you that the average cost per machine has been but thirty cents per year for repairs during ten to fifteen years of service—years of service prove their worth.

**Sixth:** The Frictionless Empire gets thirty per cent. more cream than old methods. The cream is first quality—commands a higher price than gravity cream. More cream and higher price

cream necessarily mean more money.

No other separators will fulfill all these six requirements. They cannot do so, because they cannot use the Empire patented devices and mechanism.

These patented features are found only in the Frictionless Empire (cone method) and Empire Disc. They are both high-grade machines. And in these machines you have your choice of the only actually standard methods of cream separation.

Whichever machine you choose you are bound to be satisfied, for every Empire Separator is sold under a binding guarantee—a guarantee as good as a gold bond.

## Some day you'll Own an Empire

No matter what machine you buy now sooner or later you'll buy an Empire Separator. An Empire is the only separator really good enough for you. An Empire will make more dollars for you, cost less to run, save you more time, than any other make you can purchase. There is nothing in cream separators equal to an Empire, remember that.

# The EMPIRE Line of Cream Separators

All Sizes of Both Cone and Disc Machines

We give you your choice of either the cone or the disc method. Both are good methods. The most important thing is the choice of the make. So be sure your new separator is Empire-make.

## The Empire Cream Separator Company of Canada, Limited

Winnipeg, Man. - - TORONTO, ONT. - - Sussex, N. B.

Chicago, Ill.; Portland, Ore.; Port Huron, Mich.; Bloomfield, N. J.; Columbus, O.; Essex Junction, Vt.; Minneapolis, Minn.; Wichita, Kans.; Kansas City, Mo.; Des Moines, Iowa; Detroit, Mich.; Mason City, Iowa.



The Empire Disc

## Northern Ontario

The forest and mineral wealth of Northern Ontario has attracted many people from all parts of the civilized world.

One ninth of the world's reported output of silver in 1908 was taken from Ontario mines.

New discoveries of undoubted richness are being constantly reported from sections far distant from the far-famed Cobalt. Yet a more certain reward is insured to the settler who acquires for himself 160 acres of the rich agricultural lands now open for settlement and made accessible through the construction of railways and Colonization Roads.

The fertility of the soil is unsurpassed. The timber is in demand at a rising price. Mining, railway and Colonization Road construction, lumbering, etc., afford work in abundance to those who have not the means to remain on their farms continually. These also provide a market for farm produce at prices unequalled anywhere.

Cochrane, the terminus of the T. & N. O. Ry., on the G. I. P. Transcontinental Railway, now under construction, is in the same latitude as the southern part of Manitoba, and 800 miles nearer the seaboard.

That the experimental stage is past is clearly demonstrated. The country is rapidly filling up with settlers from many of the other Provinces, the United States and Europe.

For information as to terms of sale, homestead regulations and for special colonization rates to settlers and for settlers' effects write to

**D. SUTHERLAND,** The Director of Colonization,  
Parliament Buildings, TORONTO.  
**HON. J. S. DUFF,**  
Minister of Agriculture.

## GOSSIP.

### THE MARKHAM SALE.

Friday, March 11th, is the date announced for the dispersion sale of the Shorthorn herd of Ed. W. Robinson, at his farm at Markham, Ont. Thirty head of Scotch-bred Shorthorns are catalogued, including representatives of several very desirable families, some of the cows having calves at foot, sired by the Duthie-bred bull, Royal Fancy, which is in the sale, a son of the Marr-bred Scottish Fancy, and of the Cruickshank Secret tribe. A young imported bull, Masterpiece, of the Kinellar Claret tribe, and sired by the Bruce-bred bull, Dominic, is also in the sale. Geo. Jackson, of Port Perry, will officiate as auctioneer, and the morning trains will be met at Markham, G. T. R., and Locust Hill, C. P. R.

### SHORTHORNS, CLYDESDALES AND OXFORD SHEEP.

"The Farmer's Advocate" representative had the pleasure a few days ago of a most pleasant call on McFarlane & Ford, of Dutton, Ont., and, as usual, found them in their happiest mood. A few minutes' conversation with genial John McFarlane will cure a man of the worst case of "grumps" that ever afflict-

ed a worldly mortal. Clydesdale horses, Shorthorn cattle, Oxford Down and Lincoln sheep are the specialties in pure-bred stock with McFarlane & Ford. In Clydesdales for sale are two imported mares, both in foal to Imp. Keir Democrat; Sonora, by Up-to-Time, and Rosie of Newhouse, by Montrave Sentinel, both of the low, thick type. Another is a three-year-old, imported in dam, Maggie of Greenock, by Prince of Brunstane; also one filly and one horse colt, both rising a year old, with imported sire and dam. Here is some choice buying that will be priced right. The Shorthorns number about forty head, a number of the breeding cows being imported, sired by such well-known bulls as Prince of Archers, Royal Prince, Abbotsford Star, etc. The sires in service are Blossom's Joy =73741=, a son of the great Joy of Morning (imp.). Another is a son of the noted sire, Imp. Bapton Chancellor. Most of the young things are sired by Imp. Protector, of which there are a number of two- and three-year-old heifers, and five red bulls about ten months of age, three of them out of the imported cows, Lady Bess, Tidy Lass and Alexandria. These are the best lot of young bulls ever bred in this noted herd. In Oxford Down sheep, there are a number for sale, of all ages, the stock ram being Hantonian 204th (imp.). In Lincolns for sale are shearing ewes.

## TRENCH'S REMEDY -FOR- EPILEPSY AND FITS

IMPORTANT NOTICE  
A BRANCH OFFICE has been established at 107 St. James' Chambers, Toronto.

REDUCTION IN PRICE  
This important change permits of prices being reduced to those prevailing in Europe, namely:—Full package, \$12.00; half do., \$6.00; quarter do., \$3.75; postage of express charges extra.

THE ONLY CANADIAN AND U.S. ADDRESS

TRENCH'S REMEDIES, LIMITED

107 ST. JAMES' CHAMBERS, TORONTO

Pamphlet mailed free on application.

Beware of spurious imitations. All packages of Trench's Remedy must bear our trademark seal in unbroken condition on each end.

## Camphor Ice VASELINE

FOR CHAPPED SKIN AND LIPS, GOLD SORES, WINDBURN.

12 Vaseline Remedies in Tubes

Capiscum, Borated, Mentholated, Carbated, Camphorated, White Oxide of Zinc, etc. Each for special purposes. Write for Free Vaseline Book.

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379 Craig St. W., Montreal

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QUESTIONS AND ANSWERS.  
Miscellaneous.

DAYLIGHT ON CREAMERY  
METHODS.

I see quite a few writing in your paper and other papers in reference to Essex County as being a hog and corn and fruit county, and not much for dairying, which, to a large extent, is true. One of the drawbacks to dairying in this county is the cost of manufacturing cheese or butter, on account of the small number of cows being kept, as haulers have to go farther for the cream, therefore it costs more to gather the same. What do they charge per pound of butter in the Eastern dairies? For making and hauling, do they pay per pound of butter-fat, or per pound of butter produced out of cream? Would you kindly let me know, through your paper, the amount of butter there should be in cream testing 25 and 30 and 35 and 40 per cent. butter-fat? We have creameries in Essex that are claiming to haul cream and make butter for 2 cents per pound. The way they do, suppose your cream tests 30 per cent butter-fat, and they sell butter at 22 cents per pound, they pay you at the rate of 20 cents per pound of fat; 30 per cent. fat. That gives you \$6 per 100 pounds cream, and they try to make you believe they are making your butter for 2 cents per pound, and paying you for all the butter that is in your cream. Now, in a 30-per-cent. cream, is there not an overrun of five pounds of butter or more? Is not the maker getting \$1.80, or more, instead of 60 cents, as he would try to make you believe?

BENJAMIN BROWN.

Essex Co., Ont.

Ans.—The writer of this letter has, evidently, cut his eye teeth. His communication bespeaks an intelligent grasp of the subject of which he writes. If there were more like him, the creamery business in Essex and some other counties would be soon placed on a better basis. Now, to answer the questions: There is a considerable overrun in buttermaking. Taking it on the average, the overrun amounts to about one-sixth in ordinary creamery practice, varying somewhat, according to a variety of conditions. From thirty pounds of butter-fat, about thirty-five pounds of butter should be, and usually is, made. Where the creameryman pays on a basis of so much per pound of fat, and keeps the overrun, he is virtually being paid a much higher price for making than appears on the surface. For instance, suppose butter is worth 22 cents a pound. Suppose we have a hundred pounds of cream, testing thirty per cent. fat. The creameryman would be making five extra pounds of butter and pocketing the proceeds of it (\$1.10), besides the 60 cents he assumes to be getting, making \$1.70 in all, in place of 60 cents. This figures out as equivalent to 4.85 cents per pound of butter made, or 5.66 cents per pound of fat. If the creameryman wished to play the whole hog, he might base his nominal charge for making on the amount of butter made, making it 70 cents (instead of 60 cents, as we have assumed), with a total revenue from commission and overrun of \$1.80 from the manufacture of the thirty pounds of fat. Perhaps we should explain that the patrons ought to keep the overrun and pay the creameryman so much per pound of butter made, but this should not be allowed when he is keeping the overrun. The ruling charge for hauling and making in the creameries of Western Ontario is 3½ cents to 4 cents per pound of butter. From this, it will be plain to the patrons of those creameries who give the maker the overrun, just about where they get off. The system is vicious, and should not be tolerated. Insist upon your creameryman publishing a complete statement, showing, among other things, the amount of fat received, amount of butter made, and the cost of manufacture figured on a basis of fat, and also of butter.

TRADE TOPIC.

Farmers will do well to secure early their seed grain, clover, grass and root seed, while they may have choice of the best and cleanest seed. Geo. Keith & Sons, seed merchants, Toronto, an old and reliable firm, offer the most improved varieties, and send samples and catalogue free to intending purchasers making application.

# RUBEROID ROOFING

Stands On Its Record

It is the **only** Roofing that has met the **test of time.**

There are upwards of 300 imitations and substitutes, and they cost more in the end.

**Only One Genuine**



Beware Imitations

It is the **only** Roofing that is made in **impregnated** colors **Red, Brown and Green.**

Before deciding on any Roofing for any purpose

**Get Our FREE BOOK**

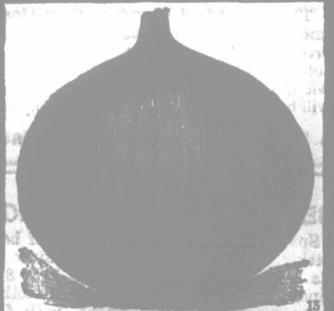
It gives you information **you** should have about **All Roofings.** Write to-day.

Fac-simile of the "Ruberoid Man" appears on the outside wrapper, and the word "Ruberoid" is stamped on the underside of the fabric every few feet.

The Standard Paint Company of Canada, Limited  
Manufacturers, MONTREAL.  
DEALERS EVERYWHERE.

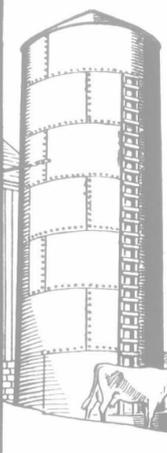
## RENNIE'S SEEDS ARE CAREFULLY GROWN HONESTLY TESTED & GIVE GOOD RESULTS

BUY THEM FROM YOUR DEALER OR DIRECT FROM:  
WM. RENNIE CO. LIMITED, TORONTO, MONTREAL, WINNIPEG, VANCOUVER.



In the ordinary cement or wood silo there is usually formed about the wall a rim of ensilage of considerable width, which is frozen and decayed, and therefore unfit for use. This waste is reduced to practically nothing and the ensilage is kept sweet and clean for the whole feeding season in the

## Waterous Steel Silos



These silos are composed of heavy steel plates firmly rivetted together to be tight and absolutely waterproof and when set on a cement foundation are self-supporting. They are shipped out complete with plates rolled and punched and rivets for same, all ready for assembling. The erection can be done in any weather and is comparatively easy. Four or five men should do the work without trouble in about three days.

The initial cost of the steel silo may at first appear to be somewhat higher than the ordinary cement silo, but when you consider the fact that it takes at least three times as long to erect a cement silo, that it is impossible to work when the frost will affect the setting of the cement, and add to this the cost and time taken for hauling gravel—often a considerable item—you will see that the final costs are practically identical, and if anything in favor of the steel silo.

They can be added to at any time, and if necessary, can be dismantled and re-erected at little cost. Write and let us tell you all about them.

Waterous Engine Works Co., Ltd., Brantford, Can.

## WIRE FENCE at Factory Price

Why don't you buy your fencing same way as United States farmers—direct from factory at one small profit. I can sell you any kind of fencing (gates too) you want and save you jobber and agent's profits. Get my prices—I pay the freight—give you bank reference and guarantee satisfaction or money back. Only Canadian firm selling fencing this way. Over 15 years at it in Canada. Send a post card for my free booklet to-day.

E. L. DYER, Manager Crown Fence & Supply Co., TORONTO, Canada

## Invest in Our Debentures

If you seek a safe investment, put your money in the Debentures of this Company. Simply deposit any amount over \$100 for a fixed period. The Debenture form you receive entitles you to the sum invested at expiration, with 4 per cent. interest payable semi-annually in the meantime. A Debenture investment in this Company is absolutely safe, being secured by carefully-selected assets of over \$4,000,000. Call or write to-day for details.

Temporary address:  
434 Richmond St.,  
London,  
Canada.

## The Ontario Loan and Debenture Co.

A. M. SMART MGR.  
DUNDAS ST. MARKET LANE.

When Writing Mention The Advocate

## SHORTHORNS BY PUBLIC AUCTION

At **MAPLE LODGE STOCK FARM** on **Thursday, March 24th, 1910**

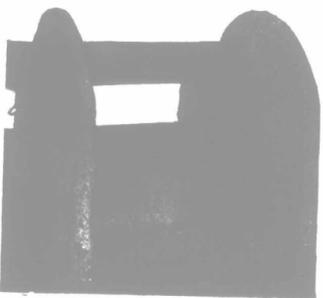


On above date I will sell about **30 head of Shorthorns**, four of them young bulls. All the heifers, one, two and three years old, in the herd will be offered. They are all an extra good lot, and include several Scotch-bred ones, as well as some with Scotch tops on good English foundation. A large number of them are splendidly bred for milk production. A rare chance to get the first-class milking quality combined with the best beef type.

Six months' credit on approved paper. Trains from Stratford, G. T. R., at 9.25 a.m. and 1.30 p.m., will stop at farm. Lucan Crossing is one mile. Trains on London and Wingham branch stop there. Send for catalogue and come to the sale.

**A. W. SMITH, Maple Lodge P.O., Ont.**

### STABLE MOULDS



The new **Ideal Manger, Partition and Water System** have solved the problem. Patented Oct. 26, 1909, and sold by A. D. Schmidt, North Woolwich, Ont. An illustration of moulds will be mailed on application. Apply to

**A. D. SCHMIDT, North Woolwich, Ont.**

#### Special Notice.

**BETTER THAN SPANKING.**  
Spanking does not cure children of bed-wetting. There is a constitutional cause for this trouble. Mrs. M. Summers, Box 821, Windsor, Ont., will send free to any mother her successful home treatment, with full instructions. Send no money, but write her to-day if your children trouble you in this way. Don't blame the child, the chances are it can't help it. This treatment also cures adults and aged people troubled with urine difficulties by day or night.

Don't Throw it Away. Buy your Mending Dish or Hot Water Bag Leak? USE **MENDETS** (MENDING DISH). They mend all leaks in all utensils—tin brass, copper, granite, hot water bags, etc. No solder, cement or rivet. Any one can use them; fit any surface; two million in use. Send for sample pkg. 10c. Complete pkg. assorted sizes, 25c. postpaid. Agents wanted. Collette Mfg. Co. Dept. K. Collingwood, Ont.

### For Sale: Imp. Hackney Stallion

**TRUMAN'S CADET (VOL. 21) NO. 8684.**  
Sire, Wood Ganymede (7674).  
Dam, Claygate Rose (Vol. XXI).

As a two-year-old he won first at the International Show, Chicago, and also reserve champion at the International same year, 1903. Also first at St. Louis World's Fair, 1904, and reserve for champion at same show. For particulars address:

**H. FARNCOMB, MASONVILLE, ONTARIO**

**WANTED!** By Dalhousie Agr. Society, **HOLSTEIN BULL**, two or three years of age, with pedigree. Must be from a good milking strain. Apply, stating price, etc., to: **Walter Geddes, Sec'y, Dalhousie Lake P. O., Ont.**

**Shorthorns, Clydesdales and Oxford Down Sheep.** Scotch Shorthorns: Several red bulls 10 months of age, by Protector, imp.; some with imp. dams; heifers 2 and 3 years of age. Clydesdale mares and fillies. Lincoln and Oxford sheep. All at reasonable prices. Phone connection. **McFarlane & Ford Dutton, Ont.**

**Shorthorns and Oxford Down Sheep** Young bulls and heifers of richest Scotch breeding and highest quality. Twelve ewe lambs, two aged rams and two ram lambs. None better. Phone connection. **Duncan Brown, Inga P. O., Ont.**

**Holsteins at Ridgedale Farm**—Eight bull calves on hand for sale, up to eight months old, which I offer at low prices to quick buyers. Write for description and prices, or come and see them. **R. W. WALKER, Utica P. O., Ont.** Shipping stations: Myrtle, C. P. R., and Port Perry, G. T. R., Ontario Co.

**Aberdeen-Angus** Young bulls fit for service. Cows with calves at foot. Heifers. If you want anything in this line write: **James Sharp, "Tweedhill," Rockside, Ont., Cheltenham Sta., C. P. R. and G. T. R., also Erin, C. P. R.**

### QUESTIONS AND ANSWERS. Miscellaneous.

#### MATERIAL REQUIRED FOR CONCRETE-VENTILATION PLAN.

I am getting ready to build a barn, and would like if you would publish plans for same, size of barn to be 80 x 36, with concrete or hollow brick wall underneath, 8 feet (not underground). Will use drive-house, 24 x 36, crosswise, for one end of barn, which will have 15-ft. posts, and top rafters 12 feet, bottom rafters 13 feet. Please give plan of upstairs, with one driveway in between two mows of equal width, not counting the 24 feet that will still be used for hay for horse stable, which will be under it. What width of drive-floor would you advise? Also give plan of stabling for basement to stable twenty cows and ten younger animals, with three box stalls for cattle, horse stable for eight tied horses and three box stalls. Would you advise stables crosswise or lengthwise?

1. Please give amount of material for basement wall of concrete, leaving room for four doors and as many windows as you think necessary; also separate amount for floors and mangers.

2. Please describe inexpensive plan of ventilation.

SUBSCRIBER.

Ans.—In the matter of barn and stable plans, we refer inquirer to those that have won prizes in our barn-plan competition. A plan that can be seen conveys information more definitely than is possible through mere description. Where the width of the barn is suitable, rows of stalls lengthwise are, we think, preferable to cross rows. By means of wide doors, properly placed, they allow for removal of manure with team and sleigh, and, even if wheelbarrow or litter carrier is used, there is the advantage of fewer sharp turns to be made. The same advantage is noticeable in the distribution of feed by ear.

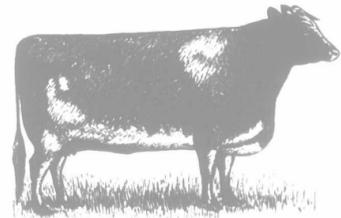
1. For wall of concrete, 10 feet in height, from bottom of foundation, under barn 80 x 36 feet, and mixed 1 to 8, there would be required about 18 cords of gravel and 70 barrels of cement. If the thickness of floor is four inches on the average, the half-inch face of which is mixed 1 to 3, and the under body 1 to 8, about 35 barrels of cement and 7 1/2 cords of gravel will be required for it.

2. The most simple and inexpensive method of ventilation possible, is to have a number of four-inch tiles imbedded horizontally across walls on all sides of basement, through which fresh air may enter from those on the windward side, and foul air be discharged from those opposite. Drafts may be checked in high winds by stuffing tiles with straw. Several of those who entered in barn-plan competition have upper half of window so hinged that top can be pulled inward to any desired angle, allowing entrance of fresh air, which finds egress up feed chutes. A more thorough system, one which reduces discomfort from draft, and does not involve much exposure, is to have foul air removed through chimney-like flues, the lower ends of which extend nearly to the stable floor, the top reaching to and above the ridge of barn. Fresh air may be let in through windows, or through short flues, either opening is near floor level and inner opening close to ceiling. The size of outlet flues should be one of 2 x 2 feet, inside measurement, for each 20 cows in the stable.

### SHORTHORNS AT AUCTION

ON

**Friday, March 11th, 1910**



E. W. ROBINSON, Markham, Ont., will sell by auction

## 30 Head of Shorthorns

All Scotch—including cows, 2-year-old and yearling heifers.

Some cows with calf at foot. Also the imported Duthie-bred bull, Royal Fancy (93217), a noted stock bull. The families represented in the sale are: Broadhooks, Jilt, Lady Dorothy, Roan Lady, Jessamine, Bellona.

FOR CATALOGUE AND FULLER PARTICULARS ADDRESS:

**ED. W. ROBINSON, Markham, Ont.**

GEO. JACKSON, PT. PERRY, AUCTIONEER.

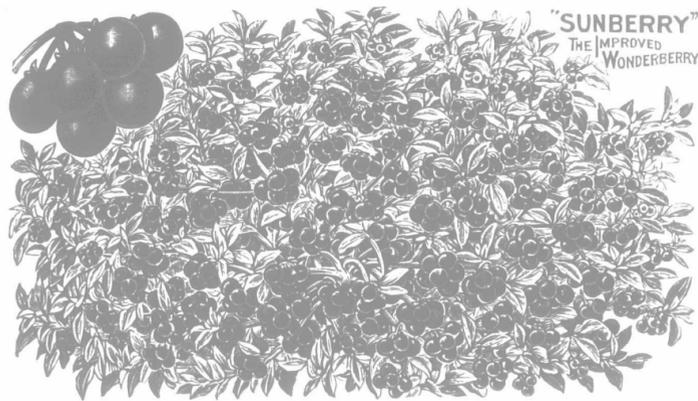
C. P. R. trains will be met on day of sale at Locust Hill station.

## Buy the Strongest Roller The "Bissell"

When you purchase the "Bissell" you get a land roller that packs the soil just the way you want it done. More than that, you get the strongest, sturdiest land roller made. We make the "Bissell" to withstand hard knocks. We fit the heavy steel drums with pressed steel heads. The seams are securely riveted every two inches. We make these drums so strong that we guarantee them not to dent or ding under the hardest work. Passing through these drums is a heavy two-inch solid steel axle that will never bend or break. We put lots of stiffness and rigidity into the well-braced frame. It has the strength to withstand all the hard strains you may place upon it. If you would like to know more about the "Bissell," write to Department W for catalogue, or ask your local dealer to show you our different styles.

**T. E. BISSELL  
Company, Ltd.  
ELORA, ONT.**

**Please Mention this Paper.**



"SUNBERRY" THE IMPROVED WONDERBERRY

SUNBERRY—THE IMPROVED WONDERBERRY LUTHER BURBANK'S GREATEST CREATION.

A Luscious Berry Ripening in Three Months From Seed SEED 20 CTS. PER PKT. 3 PKTS. FOR 50 CTS. POSTPAID.

This is positively the GREATEST new Fruit and the best NOVELTY of modern times. These are facts which no one can get away from. The proofs are overwhelming in number and conclusive in character. Grown last year by 350,000 people.

Fruit blue-black like an enormous rich blueberry in looks and taste. Unsurpassed for eating raw, cooked, canned or preserved in any form. This great garden fruit is equally valuable in hot, dry, cold or wet climates. Easiest plant in the world to grow, succeeding anywhere and yielding great masses of rich fruit all summer and fall.

JOHN LEWIS CHILDS, Floral Park, N. Y.

P. S. This offer will not appear again. Write for Sunberry seed, and Catalogue at once



CALF FOOD

BIBBY'S CREAM EQUIVALENT MEAL added to water, half a pound to six quarts, makes a gruel which CONTAINS ALL THE ELEMENTS of nutriment found in a like quantity OF FRESH MILK.

QUESTIONS AND ANSWERS. Veterinary.

DOCKING.

Explain the operation of docking a horse's tail. Can anyone do it, or has it to be done by a veterinarian?

J. R. H.

Ans.—At present, there is no statute that prevents any person from performing such operation, but there is at present a bill before the House dealing with such matters. While an amateur is allowed to operate, it is usually wise to employ a veterinarian, as he understands it, and has the proper instruments, and the animal is likely to suffer much less than in the hands of a person unfamiliar with the operation and without the instruments.

Miscellaneous.

SCRATCHES.

A three-year-old colt has very itchy hind legs; bites them until they bleed; swollen a little from hock down. What should I do for it?

G. B.

Ans.—Give a purgative ball made up of 6 drams aloes and 2 drams ginger. Feed bran only till purgation ceases. Follow up with 3 drams nitrate of potash (salt-petre), twice daily, for a week. Keep the parts clean, without washing. Dress twice daily with a lotion composed of one ounce each of sulphate of zinc and acetate of lead, and one dram carbolic acid.

MOLD ON CHEESE.

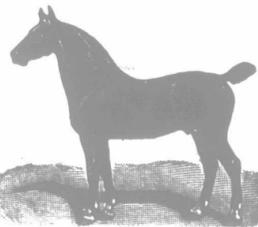
Please give one of the best plans for keeping cheese from molding, either in summer or winter.

SUSAN.

Ans.—We are not sure from the question, whether it is desired to combat mold in a dairy where cheese are made or to keep a cheese being used in the family from molding before it is used up. If the latter, we might state that a cloth dipped in vinegar and wrung out comparatively dry, laid on the cut surface of the cheese, will serve the double purpose of keeping the edges from drying out and helping to keep the surface from molding. We presume it would require to be renewed from time to time. Coating the cheese with paraffin wax will preserve it from molding, but this is some little trouble.

Warranted to Give Satisfaction.

Gombault's Caustic Balsam



Has Imitators But No Competitors.

A Safe, Speedy and Positive Cure for Curb, Splint, Sweeney, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lamenesses from Spavin, Ringbone and other bony tumors.

As a Human Remedy for Rheumatism, Sprains, Sore Throat, etc., it is invaluable. Every bottle of Caustic Balsam sold is warranted to give satisfaction.

The Lawrence-Williams Co., Toronto, Ont.

Ring-Bone

There is no case so old or bad that we will not guarantee

Fleming's Spavin and Ringbone Paste

to remove the lameness and make the horse go sound. Money refunded if it ever fails. Easy to use and one to three 45-minute applications cure. Works just as well on Sidebone and Bone Spavin.

Fleming's Vest-Pocket Veterinary Adviser

Ninety-six pages of veterinary information, with special attention to the treatment of blemishes. Durable bound, indexed and illustrated. Make a right beginning by sending for this book.

FLEMING BROS., Chemists, 76 Church St., Toronto, Ontario

ABSORBINE

Will reduce inflamed, strained, swollen Tendons, Ligaments, Muscles or Bruises. Cures the Lameness and Stop pain from a Splint, Side Bone or Bone Spavin.

W. F. YOUNG, P.O.F., 258 Temple St., Springfield, Mass. LYONS Ltd., Montreal, Canadian Agents.

Peachblow Clydesdales and Ayrshires!

CLYDES—2 four-year registered stallions, one imported. AYRSHIRE—3 very choice bull calves, all registered. All good colors, and from good milking dams. Prices right.

R. T. BROWNLEE, HEMMINGFORD, QUE.

MESSRS. HICKMAN & SCRUBY

Court Lodge, Egerton, Kent, England. Export pedigree live stock of every description. Owing to rapid increase in business, Mr. L. C. Scruby has been taken into partnership. During the spring months the export of horses will be a specialty.

NOTICE TO HORSE IMPORTERS

Gerald Powell, Commission Agent and Interpreter, Nogent Le Roton, France, will meet importers at any port in France or Belgium, and assist them to buy Percherons, Belgians, French Coach horses. All information about shipping, banking and pedigrees. Many years' experience; best references; correspondence solicited.

For Sale: CANADIAN-BRED CLYDESDALE

STALLION, PRINCE GARTLY. Foaled in June, 1907. Color seal brown, with white points. Sire Prince of London, by Baron's Pride; dam by Woodend Gartly. L.F. BROS., GALT, ONT.

For Sale Imported Clydesdale Stallion.

Royal Sovereign (7927), black face and feet white. An extra good one. Rising three. Sired by Earl of Angus (7109) (12134), dam Dedora (13397) (Vol. 29), by Woodend Gartly. Apply to: Alex. McIntyre, Cathcart, Brant Co., Ont.

Imported Clydesdales

Imported and Canadian-bred Clydesdale mares and fillies, from 1 to 5 years of age, of most fashionable breeding, up to a big size, with character and quality. A large range for selection. Phone connection. Alex. F. McIven, St. Thomas, Ont.

Agents Wanted!

ACTIVE SUBSCRIPTION AGENTS FOR THE FARMER'S ADVOCATE AND HOME MAGAZINE WANTED IN EVERY LOCALITY.

Send for terms and sample copies. Specially liberal commission allowed for obtaining new subscribers.

The Farmer's Advocate, London, Ont.

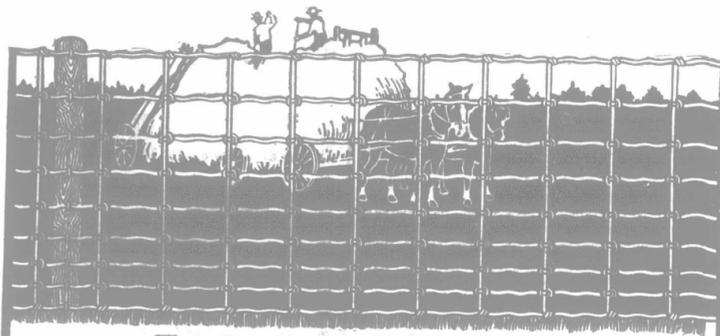
SEED POTATOES

A Change of Seed is Always Advantageous.

I am offering 5,000 bushels pure-bred seed potatoes grown from imported English, Scotch and American seed. Extra First Early, First Early, Second Early, Main Crop, Late Main Crop. For prices, etc., address:

W. P. NILES, WELLINGTON, ONTARIO Grower of Seed Peas, Beans, Potatoes, Oats and Barley.

Please Remember to Mention "The Farmer's Advocate" When Writing



**Here's a fence that is strong and springy—remains taut and will not rust—**

**Peerless the Fence that saves expense**

Put a Peerless fence around your farm and you'll get real service.

It will last through years of the hardest kind of use.

It will not rust—and rust is the greatest enemy of wire fencing.

It will not sag—when struck by a wagon or unruly animal it springs right back into position.

Our No. 9 Peerless fence is made of heavy English galvanized wire—all No. 9 gauge.

We tested all kinds of wire and found this English wire the best of all. No other wire we have tested

is drawn and galvanized with such care and thoroughness.

For this reason Peerless Fence will not rust—the spelter never chips off. The fence will last for years.

You can test and know how good any fence is before you buy it. Write for our simple formula for testing wire. We'll also send samples of Peerless Fence to test.

We know there is no fence made that will last as long and give you as much satisfaction as the Peerless Fence. Write to-day for our simple test and samples.

**THE BANWELL HOXIE WIRE FENCE CO., Limited**  
Makers of Farm, Poultry and Ornamental Fence and Gates  
Dept. E, Hamilton, Ont., Winnipeg, Man.



**UNION STOCK - YARDS Horse Exchange WEST TORONTO, CANADA.**

The Greatest Wholesale and Retail Horse Commission Market.  
Auction sales of Horses, Carriages, Harness, etc., every Monday and Wednesday. Horses and harness on hand for private sale every day.  
The largest, best equipped and most sanitary stables in Canada. Half-mile of railway loading chutes at stable door. Quarter-mile open track for showing horses. Northwest trade a specialty.  
**HERBERT SMITH, Manager.**  
(Late Grand's Repository.)

**WAVERLY CLYDESDALES AND HACKNEYS**  
My 1910 importation of Clydesdale stallions and fillies, and Hackney stallions and fillies, are now in my barns. One and two-year-old Clyde fillies of a character and quality never before excelled. My Hackney stud was never so strong in high-class animals. All are for sale and prices right. **ROBT. BEITH, BOWMANVILLE, ONT.**

**Clydesdales, Percherons and French Coachers**  
My 1909 importation of Clydesdale stallions and fillies, Percheron stallions and fillies, French Coach and Hackney stallions are now in my stables. In this lot I can supply the most exacting. Size, style, character, quality and breeding. Will sell on terms to suit. Phone connection.  
**T. D. ELLIOTT, BOLTON, ONTARIO.**

**MY NEW IMPORTATION TO HAND.**  
In my new importation of 4 Clydesdale Stallions and 6 Clydesdale Fillies, I have material that will stand comparison with anything ever imported. They have great size, beautiful mould, full of quality, right fashionably bred and perfect action.  
**JOHN A. BOAG & SON, QUEENSVILLE, ONTARIO.**

**Imported Clydesdales**  
My first importation for 1910 has just arrived. Stallions up to a ton in weight, from 1 to 5 years of age. Draft character and faultless underpinning are a predominating feature. Also a few big choice fillies 2 and 3 years of age. **WM. COLQUHOUN, MITCHELL, ONT.** Phone connection.

**HIGH-CLASS French Coach, Hackney and Clydesdale Stallions.**  
**HENRY M. DOUGLAS, Box 48, Stayner, Ont.**

**Clydesdales Home from the Shows**  
Intending purchasers would do well to see them before buying. Prices moderate.  
**Myrtle, C. P. R. SMITH & RICHARDSON, Columbus, Ont.**  
**Brooklin, G. T. R.**

**Imported Clydesdales**  
1910 have arrived. They were selected to comply with the Canadian standard, combining size, style, quality and faultless underpinning with Scotland's richest blood. They will be priced right, and on terms to suit. **C. W. BARBER, GATINEAU PT., QUEBEC.**

**CLYDESDALES and HACKNEYS**  
We have for sale a few choice Clydesdale mares, imported and Canadian-bred; also some Canadian-bred Clydesdale stallions. Hackney stallions and mares for sale always. Long-distance phone. **Hedgkinson & Tisdale, Beaverton, Ont. G. T. R. and C. N. R.**

**High-class Imported Clydesdales!**  
I have lately landed at my stables at Milverton, Ont., an exceptionally choice selection of Clydesdales—stallions and fillies. They are all prizewinners at the leading shows in Scotland. From one to five years of age. Full of quality and royally bred.  
**Jno. Semple, Milverton, Ont.**

**GOSSIP.**

Holstein breeders will do well to look up the advertisement in this issue of Walter Geddes, Dalhousie Lake, Ont.

W. H. Hunter, The Maples, Ont., makes a change in his advertisement of Hereford cattle, in which he offers for sale six young bulls and a number of young females, his older bulls having been disposed of.

It is reported that a cow belonging to Alex. Hunter, Craigie, Scotland, has given birth to four calves—two bulls and two heifers. Two of the calves were born dead, and one has succumbed since, but the remaining one is hearty and well. The cow, too, is in good condition. At her previous calving, the same cow gave birth to twins, so that she has produced six calves within twelve months.

**LAST CALL FOR ARTHUR JOHNSTON'S SHORTHORN SALE.**  
The dispersion sale of Arthur Johnston's fine herd of Scotch and English dairy-bred Shorthorns, on Tuesday, March 8th, at the farm, Greenwood, Ont. (railway stations Claremont, C. P. R., and Pickering, G. T. R.), should draw a large attendance of breeders. The cattle are of a very desirable class, both in individual merit and breeding. The bulls are an exceptionally good lot. The terms are easy. Trains will be met evening before and morning of sale, at stations above named, and every necessary facility afforded for comfortable shipment. The farm is sold; the cattle must go at the bidder's prices; the probability is that good bargains will be available.

**HOMEWOOD HOLSTEINS.**

With no superiors, and few equals, the Homewood herd of official-record Holstein cattle have, in less than four years, been brought to a standard of excellence never equalled by any other herd in Canada in the same, or considerably longer time. Three first prizes and two championships in the dairy test at Guelph in two years, is a most remarkable showing, a testimonial of the intelligent business acumen of the owners of this great herd, M. L. & M. H. Haley, Springford, Ont. All told, the herd is now about seventy strong, fourteen of them with official records of over 20 pounds of butter in seven days; twenty-three of them with records over 15 pounds in seven days; nine two-year-old heifers with records from 10 to 13.70 pounds in seven days. The highest is that of the cow Aaggie De Kol, the Guelph champion of 1909, with 88 pounds 11 ounces milk in one day, and 274 pounds butter in seven days. Another remarkable record is that of Queen Butter Baroness, winner of first in the Guelph dairy test, in the class 36 months and under, 65 pounds 2 ounces milk in one day, and 234 pounds butter in seven days. One of the most pleasing features of this herd is their high test of butter-fat, as shown in the official tests, many of them going over 4 per cent. The bulls in service have also high official backing. The sire of most of the younger things is Prince Abberkerk Mercena, whose four nearest dams have official records that average 85 pounds milk in one day, and 25 pounds butter in seven days. Another bull being used is King Baron Mercena, a son of the Guelph winner, Queen Butter Baroness, 234 pounds as a three-year-old, and his sire's dam has a record of 18.17 pounds, but the Messrs. Haley are banking on a young bull lately purchased, certainly one of the richest-bred bulls alive, Grace Fayne 2nd's Sir Colantha, by the renowned Colantha Johanna Lad, whose dam, Colantha 4th's Johanna, was, for a considerable time, the world's champion, with a seven-day record of 35.22 pounds. The dam of this young bull is Grace Fayne 2nd, with a record of 26 pounds, and she is also the dam of Grace Fayne 2nd's Homestead, who is now the world's champion butter cow, with a seven-day record of 35.55 pounds. This bull is thus a half-brother to the present world's champion, and a grandson of the late delirious world's champion, a line of breeding unequalled in the world's history of breeding along producing lines. From this great herd, for sale, are females of all ages, and three young bull calves. The farm is connected with long-distance phone from Springford.

**No Lame Horses**

If You Will Use

**Tuttle's Elixir**



Don't neglect the lame or blighted leg. Or don't give up because other things have failed. When you stop to think that there are hundreds of thousands of horses that have been made sound and are kept sound, kept at their hard work day in and day out—thanks to Tuttle's Elixir—you will realize that it's time you tried it, too. Let us prove to you that it

**CURES**

- Curb, Splints, Spavin Lameness, Ringbone, Knotted Cords, Cockle Joints, Sprains, Bony Growths, Swellings, Shoe Bolls and Founder, Distemper and Colic

It never fails to locate lameness, and the thousands who have tried it will tell you that it makes the finest leg and body wash they ever used. Send for the proof. We want you to know also of the remarkable curative powers of Tuttle's Worm Powders, Tuttle's Condition Powders, and Tuttle's Hoof Ointment. Your dealer sells Tuttle's remedies. If not, send us his name and 60c. in stamps and we will send a large size bottle prepaid. Don't tempt fate. Get Tuttle's and be sure.

**FREE** "Veterinary Experience," a 100-page book of valuable information to every horse owner. Enables you to be your own veterinary. Write for it to-day, enclosing 2 cents for postage.

**TUTTLE'S ELIXIR CO., 205 Beverly St., Boston, Mass.**

**Clydesdales and Percherons**



To my many friends, and the public generally, I wish to say that in my stables at Weston, Ont., I have my 1909 importation of 10 Clydesdale and 8 Percheron stallions; a lot that for true draft character, faultless underpinning, choice quality and breeding were never surpassed. Terms to suit and prices right.  
**J. B. HOGATE, Weston, Ont. and Brandon, Man.**  
**W. D. COLBY, Mgr. Weston, Ont.**

**DUNHAMS' PERCHERONS**

Next large importation stallions and mares here **FEBRUARY 10th**, which, added to our present stock, offers intending purchasers the finest collection in America. If you want the best horses, horses with bone, quality, size, action and best breeding, stallions or mares; if you want fair and liberal treatment; if you want lowest prices consistent with good merchandise, visit Oaklawn. Catalog shows the place and the horses.  
**W. S., J. B. & B. Dunham, Wayne, Ill.**

**Don't Have a Blind One**

**Wonderful Discovery "VISIO"**  
**MOON BLINDNESS** and all Diseases of the Eye successfully treated with this **NEW REMEDY**.  
**Money Back** if it fails to cure. \$3.00 per bottle postpaid on receipt of price.  
**Visio Remedy Ass'n, Dept. 10, 1933 Wabash Av., Chicago, Ill.**

**HILLSDALE FARM**

**OFFERS FOR SALE**  
**Clydesdale Stallions and Mares (5)**

From 4 to 6 years old, two of a Sir Everard mare, another bred through the dam of Darnley (222); big, sound horses, and selected with a special view to their stock-getting qualities. A prize mare by Marcellus, out of a Montrave Mac mare, is part of the offering. Also the prize Hackney, Dainty Duke of Connaught, by the great Garton Duke, dam Dainty by Denmark. Write me for further description and prices, and compare with others for similar quality of offering.

**B. ROTHWELL, Hillsdale Farm Ottawa P.O., Ontario.**

**For Sale: REGISTERED HACKNEY STALLION, COCK ROBIN.**

Three years old; 15 1/2 hands; chestnut; hind feet white. Sire Commodore 3rd, imp. (6695), by Chocolate Jr. (4185). Dam Ada Adair (181), by Robin Adair 2nd, imp. (3907). For description, terms, etc., address: **G. W. CLEMONS, ST. GEORGE, ONT.**  
**For Sale: Suffolk Punch Stallion.** Sired by pure-bred Suffolk Punch stallion, Ontario. Brown. Six years old. **THOS. KNAGGS, VANDECAR, ONT.**

# MOVING PICTURES OF THE WONDERFUL DAN PATCH 1:55

MAILED YOU ABSOLUTELY FREE AND WITH ALL POSTAGE PAID

IT COST \$2700.00 TO HAVE IT TAKEN AND REPRODUCED. THIS IS THE LATEST HORSE SENSATION AND GREATEST TRIUMPH IN THE MARVELOUS AND REALISTIC MOVING PICTURE ART.

It is a new invention that you can carry in your pocket and show your friends instantly day or night, either once or a hundred times and without a machine, curtain or light. It is the most attractive novelty and most valuable Dan Patch Souvenir ever invented and shows every motion of Dan Patch 1:55 in pacing one of his world record miles and absolutely true to life.

I want to assure you that it is the most successful moving picture of ever taken of a world champion horse in his wonderful burst of speed. If you love a great horse and want to be able to see him in thrilling motion pictures at any time as long as you live be sure and accept my remarkable offer before they are gone. I reserve the right to stop sending these moving pictures when 2,500,000 have been mailed.

The original photographic film contains

## 2400 MOVING RACE PICTURES OF DAN PATCH 1:55

and every one of these pictures shows the King of all Horse Creation as plainly as if you stood on the track and actually saw the mighty Dan Patch 1:55 in one of his thrilling speed exhibitions for a full mile. Just think of it! 2400 moving pictures taken of Dan in one minute and fifty-five seconds means 21 pictures taken for every second all of the way around the entire mile track from the back seat of a high power automobile.

tiful woolen blanket over him to prevent catching cold and then you can see him walk up the track before the madly cheering multitude.

Wherever this wonderful moving picture, of the fastest harness horse in the world, is shown, people involuntarily call out "Come on Dan"—"Come on Dan." This marvelous moving picture of Dan Patch pacing a great mile is the most realistic and thrilling picture you ever saw. We have taken a part of these 2400 wonderful and sensational pictures and made them into a newly invented pocket moving picture that you can easily carry with you in your pocket and show to your friends at any time, day or night. It does not need a machine, it does not need a curtain and it does not need a light. It is all ready to show instantly, either once or a hundred times and creates a sensation wherever shown. If you admire a world champion who has gone more extremely fast miles than all of the pacers and trotters combined that have ever lived then I am sure you will write me today for one of my wonderful moving pictures of the King of all Horse Creation, Dan Patch 1:55.

**THIS MOVING PICTURE WILL BE MAILED TO YOU ABSOLUTELY FREE, WITH POSTAGE PREPAID, IF YOU ARE A FARMER, STOCKMAN OR POULTRY RAISER AND IF YOU CORRECTLY ANSWER THE THREE QUESTIONS. YOU MUST ANSWER QUESTIONS.**

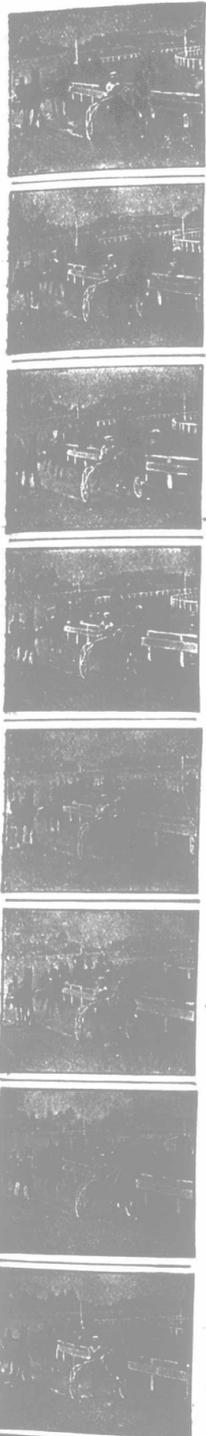
1st. In what paper did you see my Moving Picture Offer? 2nd. How many head each of Horses, Cattle, Sheep, Hogs and Poultry do you own? 3rd. How many acres of land do you own or how many acres of land do you rent?

I will not mail this wonderful moving picture of Dan Patch 1:55 free unless you are a Farmer, Stockowner or Poultry Raiser and unless you correctly answer these three questions.

**If You are Not a Stockowner and want the Moving Pictures send me 25 Cents**

In silver or stamps to pay postage, etc., on Moving Pictures. I will mail this wonderful Moving Picture of Dan Patch 1:55, the fastest harness horse the world has ever seen, to you if you send me Twenty-five Cents in silver or stamps even if you do not own any stock or land. It costs about \$2700.00 Cash to have one of the original pictures taken and reproduced. Write me today so that you will be sure to secure one before my supply is exhausted.

INTERNATIONAL STOCK FOOD CO., TORONTO, CAN.  
E. B. SAVAGE, Proprietor



### Use the Horses

name or...  
RES  
Arvin Lameness, Ring-b...  
Corks, Cockle Joints,  
Swells, Swellings, Sho...  
Distemper and Colic

and Percherons

To my many friends, and the public generally, I wish to say that in my...  
J. B. HOGATE,  
Weston, Ont. and  
Brandon, Man.  
W. D. COLBY, Mgr.  
Weston, Ont.

PERCHERONS

Importation stallions...  
unham, Wayne, Ill.

a Blind One

is to cure. \$2.00 per receipt of price.  
13 Wabash Av., Chicago, Ill.

LE FARM

fferers for Sale

desdale

o 6 years old, two of Silver Cup, one out bred through the dam...  
ST. GEORGE, ONT.

TERED HACKNEY...  
Punch Stallion...  
HOS. KNAGGS.



**International Stock Food Factory**  
LARGEST IN THE WORLD  
Covers over a City Block and Contains Over 18 Acres of Floor Space  
CASH CAPITAL PAID IN \$2,000,000.00  
Ask Your Dealer for My Preparations  
International Stock Food  
International Poultry Food  
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International Phospho-Chloro  
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International Colic Remedy  
International Louse Killer  
International Louse Paint  
International Gall Healer  
Silver Pine Healing Oil  
International Heave Remedy  
Dan Patch Stable Disinfectant  
Dan Patch White Liniment  
International Worm Powder  
International Hoof Ointment  
International Sheep Dip  
International Cattle Dip  
International Hog Dip  
International Harness Soap  
International Gopher Poison  
International Worm Remedy  
International Healing Powder

**I OWN THE 5 FASTEST WORLD CHAMPION STALLIONS EVER OWNED IN ONE FARM IN THE HISTORY OF THE WORLD.**  
On my "International Stock Food Farm" of 700 acres I own Dan Patch 1:55, Minor Heir 1:59 1/2, Directum 2:03 1/2, Arion 2:07 1/2, Roy Wilkes 2:06 1/2, and also about 200 head of Young Stallions, Brood Mares and Colts and they eat "International Stock Food" every day. I will be pleased to have you visit my farm at any time and see my horses and their splendid condition. I feel sure that you never saw their equals at any Fair or Horse Show. ACTUAL TEST IS WHAT PROVES EVERYTHING IN THIS WORLD. If "International Stock Food" gives paying results for the highest priced horses in the world on my farm it certainly will pay you to use it for all of your stock. Remember that if it ever fails to give your Horses, Cattle, Sheep or Hogs, better assimilation and digestion, purer blood and perfect health with quick growth and fattening that it will not cost you a cent no matter whether you have used one hundred pounds or five hundred pounds and you are to be not only the user but also the sole judge of results. I will leave the entire matter for you to decide and accept your own statement. The United States Government back my claims that "International Stock Food" is strictly a medicinal tonic, blood purifier, etc. During the Spanish-American War, United States officials made a special examination and decided that "International Stock Food" was strictly Medical and I paid \$40,000.00 patent medicine war tax. Can any honorable man deny this evidence? "International Stock Food" and label design is registered in Medicinal Department as a Trade Mark No. — "TRADE NAME" FOR A MEDICINAL PREPARATION  
The United States Government issues me a Trade Mark No. — on the world famous lines, 3 Feeds For One Cent — as

showing how cheaply International Stock Food can be mixed with the regular grain feed—My label shows a list of the medicinal ingredients used and 250,000 druggists have sold "International Stock Food" for over 20 years as a medical preparation.  
**DO YOU EVER EXPECT TO SEE THESE WONDERFUL DAN PATCH 1:55 RECORDS EQUALLED?**  
**DAN PATCH 1:55 HAS PACED**  
1 MILE IN - - - - 1:55  
1 MILE IN - - - - 1:55 1/2  
2 MILES IN - - - - 1:56  
14 MILES AVERAGING - 1:56 1/2  
30 MILES AVERAGING - 1:57 1/2  
45 MILES AVERAGING - 1:58  
73 MILES AVERAGING - 1:59 1/2  
Dan Patch 1:55 has gone more extremely fast miles than the combined miles of all the trotters and pacers that have ever lived. Be sure and remember these facts when you think of some horse equalling Dan's marvellous performances.  
For seven years Dan Patch has eaten "International Stock Food" every day mixed in his regular grain feed. It has given Dan Purer Blood, More Strength, More Endurance, More Speed and Perfect Health. It is constantly used and strongly endorsed by over Two Million Farmers and Stock Breeders, as the greatest Animal Tonic, and has been for 20 years. No other preparation has such strong United States Government and practical stock breeders endorsement.  
**Signed, E. B. SAVAGE, International Stock Food Co., Toronto, Can.**

# Clipped Horses Are Worth More

Horse doctors and authorities recommend that horses be clipped in the spring. This applies particularly to farm horses. They work better, sleep better, and keep in better condition if they are without a long, heavy, sweaty coat of hair. They are less liable to catch cold and can be cleaned in one-fourth the usual time. Long hair saps a horse's energy. No man can work in a heavy fur overcoat all the time, neither can a horse work under similar conditions. This is especially true in the spring when a horse is soft.

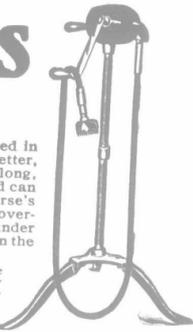


**Clipping is Easy**—The Stewart machine is so simple that anybody can clip horses by gutting the knife while the crank is turned. We have made it so durable that it will last a life-time, giving good service all the time; this wonderful durability is obtained because working parts are enclosed from dust and dirt and run in oil, and because all gears are cut from the solid steel bar and are made file hard.

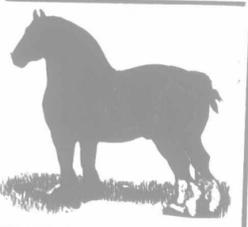
**The Stewart No. 1** Bearing Horse Clipping Machine is a better machine than above stated—but it COSTS LESS than most others. This is because there are FEW PARTS and no DELICATE MECHANISM. It is as simply made as it is operated. YOU CAN GET IT FROM YOUR DEALER FOR ONLY \$9.75

GET IT NOW. IF YOUR DEALER HASN'T IT WRITE US DIRECT.

CHICAGO FLEXIBLE SHAFT CO. 110 La Salle Ave., Chicago



## 22 Imp. Clydesdale Stallions



Just landed, ages from 2 to 5 years old. A number of them are premium horses. Several are over the ton, or will make it. A number of them are grandsons of Baron's Pride. All are for sale. Prices are reasonable. Intending purchasers will find it to their interest to see these horses before purchasing. Farm two miles from the end of street-car line.

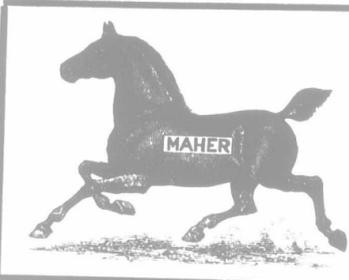
**O. SORBY, Guelph, Ont.**  
Long-distance 'phone.



## 20 Imp. Percheron Stallions 20

Our 1909 importation of 20 Percheron stallions, from 1 to 5 years of age, are now in our stables. Up to over a ton in weight. Big, stylish, choke-full of flashy quality, and faultless movers. Prizewinners among them. The best lot ever imported to Canada. All are for sale on terms to suit.

**HAMILTON & HAWTHORNE, Simcoe, Ontario.**



## Maher's Horse Exchange

16 to 28 Hayden Street TORONTO (Near cor. Yonge and Bloor)

AUCTION SALES of Horses, Carriages, Harness, etc., every MONDAY and THURSDAY at 11 a. m. PRIVATE SALES every day. We have always a large quantity of horses on hand for Auction or Private Sale. We have the biggest and best sale ring and stables in Canada. We hitch and try all horses for out-of-town buyers, and guarantee satisfaction. WE SELL STRICTLY ON COMMISSION.

**P. MAHER, GEO. JACKSON, Proprietor, Auctioneer.**

## T. H. HASSARD'S NEW IMPORTATION!

MY NEW IMPORTATION OF Clydesdale Stallions and Fillies are now in my stables at Markham, Ont., and, as usual, I have a big range for selection, of a type, breeding and quality seldom equalled, never excelled, by any previous importation. Call and see them. Phone connection.

**T. H. HASSARD, Markham, Ont.**

**Imported Clydesdales**—We have a number of newly-imported stallions on hand in our stables in London, Ont., including some very large and heavy horses, several prizewinners. Another consignment, stallions and fillies, sailed Saturday, October 16th, from Glasgow.

**DALGETY BROS., LONDON, ONTARIO.**

**Imported Clydesdales**—I have lately landed an importation of 4 young stallions and 5 fillies, whose breeding is unsurpassed. They are the kind the country wants. Big, smooth, stylish, full of quality and straight movers. Will be sold right and on easy terms.

**Geo. G. Stewart, Howick, Que.** Bell Phone.

**Homestead Aberdeen-Angus**—Some extra good bull calves, 6 to 8 months old; also females, all ages. Parties looking for cattle, either sex, should write, or come and see them.

**William Ische, Sebringville, Ont.** Long-distance Phone.

**FOR SALE: SOME NICE YOUNG Aberdeen-Angus Bulls**—and some females of all ages. Also a first-class Clydesdale stallion. **J. W. Burt, Coningsby, Ont.**

**Aberdeen-Angus Cattle**—Stock all ages, good strains, at reasonable prices. Apply to **ANDREW DINSMORE, "Grape Grange" Farm, Clarksburg, Ont.**



**ROCK SALT for Stock, \$10 PER TON.** Toronto Salt Works, 128 Adelaide St. E., Toronto, Ont. **G. J. Cliff, Manager.**

**ABERDEEN - ANGUS**—Will sell both sexes; fair prices. Come and see them before buying. Drumbo station.

**WALTRER HALL, Washington, Ont.** When Writing Mention This Paper.

## QUESTIONS AND ANSWERS. Veterinary.

### CONGENITAL INCONTINENCE OF URINE.

I have a yearling filly that, since birth, has been continuously passing urine in very small quantities. She never has a full passage.

**J. J. McD.**

**Ans.**—This is due to a congenital weakness of the muscles of the neck of the bladder. It is quite possible she will improve with age. The administration of drugs may not help, but is worth trying. Give her 30 grains nux vomica in damp food, three times daily, and feed well, and give regular exercise.

### SALLANDERS.

Gelding has an eruption in front of his hock. I blistered with African oil, and tried several other remedies without results. I am now using Fleming's healing oil with excellent results.

**T. W.**

**Ans.**—On account of the location, this lesion will be very hard and slow to heal. I would advise keeping him as quiet as possible, reducing his ration to hay and bran, and applying oxide-of-zinc ointment to the affected part, three times daily. I have no knowledge of the preparation you mention, but as the results are so satisfactory, it might be well to continue.

### COLIC.

Filly, eight months old, fed on timothy hay and half-pint oats, twice daily, also bran mash, is in good condition, but is subject to colic, and sometimes her feet get sore. She is kept in a box stall.

**M. S.**

**Ans.**—Her digestive organs are weak, and she requires very careful feeding, and also tonics. Take equal parts of sulphate of iron, gentian, ginger and nux vomica; mix, and give a teaspoonful three times daily. If possible, feed on clover hay, and only in limited quantities. Get the oats rolled, and feed half oats and half bran. Give her a couple of carrots once daily, and turn out for exercise for a few hours every day that is not stormy. Have her feet pared down to normal shape.

### SWOLLEN HEAD.

Seven of my cattle have been affected with the following symptoms: A swelling extending from the throat to the mouth, and extending upwards nearly to the ears. They eat well and do not appear to suffer much. They are fed on green oats unthreshed, hay and straw.

**J. W. McC.**

**Ans.**—It is unusual for so many animals to be attacked in this manner. If any cases show serious symptoms, it will be wise to call a veterinarian in to investigate, as it is hard to diagnose without a personal examination. I would suggest bathing the parts with hot water three or four times daily, and, after bathing, rubbing with a liniment made of three parts each of oil of turpentine and raw linseed oil, and one part liquor ammonia fortior. Give internally one dram iodide of potassium, twice daily.

### FATALITY IN PIGS—LUMPS IN TEATS.

1. Pigs, five weeks old, still nursing, and very fat, began to die without any signs of sickness. We would find them dead. Another litter in adjoining pen went the same way.

2. What causes lumps in cow's teats, and can they be removed?

**T. K.**

**Ans.**—1. As no symptoms are given, it is hard to diagnose. I am of the opinion the pigs died from indigestion, due to too much food and want of exercise. If any are still living, I would advise the administration of a purgative of 1 ounce Epsom salts, that they be weaned, and fed on milk and bran, and what raw roots they will eat, and be given plenty of room for exercise.

2. These obstructions appear without apparent cause. In most cases, the predisposition appears to be congenital. We notice that the heifers of a cow that has been troubled that way, often become so affected. In many cases a successful operation can be performed by a veterinarian, with an instrument especially designed for the purpose, but the use of knitting needles, etc., usually cause more or less serious complications.

## Nitrate of Soda

Nitrate Sold in Original Bags  
**NITRATE AGENCIES CO.**  
California.....321 Stimson Block, Los Angeles  
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Georgia.....1204 Hartford Building, Chicago  
Illinois.....305 Baronne St., New Orleans  
Louisiana.....62 Stone Street, New York  
New York.....Citizens Bank Bldg., Norfolk  
Virginia.....603 Oriental Block, Seattle  
Washington.....1103 Temple Bldg., Toronto  
Canada.....Havana  
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Address Office Nearest You  
Write for Quotations

## The Maples Herefords

Canada's Greatest Show Herd  
For sale: 6 young bulls and a number of young females, bred from imported and show stock. None better P. ices right.

**W. H. HUNTER, Orangeville, Ont., P.O. & Sta.**

## Pure-bred Hereford Bulls

For sale: Polled and horned. Breeding choice.  
Address:  
**J. LINDSAY, LIMESHOUSE, ONTARIO.**

**Balmedie Polled Angus** and Oxford Down several exceptionally nice heifers, and a few young bulls. Discriminating buyers will be pleased with my herd. Anything in the herd will be priced. Also ram and ewe lamba. **T. B. Broadfoot, Fergus P. O. and Station.**

## A. Edward Meyer

P. O. Box 378, Guelph, Ont.,  
Breeds **SCOTCH SHORTHORNS** Exclusively. Twelve of the most noted Scotch tibets have representatives in my herd. Herd bulls: Scottish Hero (imp.) = 55042 = (9'065) 295765 A. H. B.; Gloster King = 68703 = 283804 A. H. B. Young stock for sale. Long-distance phone in house.

## Shorthorn Cattle

Would price my stock bull, Star Prince = 53900. Red. It would pay a yone wanting a bull to come and see his produce. Oldest bull I have left by him will be a year old in February. A winner in Toronto and London. Females of all ages. Some very good heifers in nice condition. All reds or good roans.

**J. T. GIBSON, DENFIELD, ONT.**

## Geo. Amos & Sons, Moffat, Ont.

Cattle bred by us have won grand champion females, Toronto, 1907, 1908, and junior champion 1909. American grand champion 1908, grand champion A. Y. P. E., Seattle, Wash., 1909; also won five firsts at Toronto, 1908, in groups our own breeding. For sale: several good young bulls, cows and heifers at very moderate prices for sake of room for coming calves.

## Farm 11 Miles East of Guelph, C. P. R.

## Scotch Shorthorns

At Toronto Exhibition this fall yearling bulls bred by us won 1st and 2nd in class and junior champion 1909. We also bred the sire of these bulls. The grand champion steer at Guelph was sired by a bull of our breeding. We have 10 young bulls for sale now, bred the same. Write for breeding and prices.

**John Miller, Brougham P. O., Ontario.**  
Claremont Stn., C. P. R., 3 miles

## 1854-Maple Lodge Stock Farm-1910

**Shorthorn bulls and heifers** of extra quality and breeding, and from best milking strains.  
**Leicesters** of first quality for sale. Can furnish show flocks.

**A. W. SMITH, Maple Lodge P. O., Ontario**  
Lucan Crossing Sta., G. I. R., one mile.

## SPRINGBROOK SHORTHORNS

For sale: 8 good bulls, 6 red and 2 roan, some sired by Royal Sovereign. Bred by the late S. Campbell, Aberdeenshire, Scotland. Most of them by Lord Gordon, bred by A. Watson, Elgin, Scotland.

**J. & W. Russell, Richmond Hill, Ont.**

## Spring Valley Shorthorns

Herd headed by Clipper Chief (imp.) = 64220 = (94673). If you want to get an imported bull, or a good Canadian-bred one to head your herd, be sure and write, or come and see them. Long-distance telephone.

**KYLE BROS., AYR P. O., ONT.**

## HIGH-CLASS SHORTHORNS

I have on hand young bulls and heifers of high-class show type, pure Scotch and Scotch-topped, sired by that sire of champions, Mildred's Royal. If you want a show bull or heifer, write me.

**GEO. GIER, Grand Valley P. O. and station, also Waldemar station.**

**Geo. D. Fletcher, Binkham P. O., Ont.** offers four choice **Shorthorn** bulls 10, 13 and 18 months old, with both breeding and quality for herd headers. Prices easy. Stock bull, Benachie (imp.) = 69954 = ; also Shorthorn females and Yorkshire sows. Erin shipping station, C. P. R.

**Soda**  
Original Sago  
**GENCIES CO.**  
San Jose Bldg., San Jose  
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**Herefords**  
Greatest Show Here  
6 young bulls and a  
few young females, bred  
and show stock.  
P. H. HUNTER,  
Ont., P.O. & Sta.

**Hereford Bulls**  
Breeding choice.  
HOUSE, ONTARIO.

**Angus and Oxford Down**  
sheep - Offering  
fifers, and a few young  
will be pleased with my  
d will be priced. Also  
Broadfoot, Fergus

**and Meyer**  
Guelph, Ont.,  
HORNS Exclusively,  
otch ribbed have repre-  
d bulls; Scottish Hero  
65 A. H. B.; Gloster  
B. Young stock for  
house.

**Cattle**  
Star Prince = \$3000-  
wanting a bull to come  
bull I have left by him  
A winner in Toronto  
all ages. Some very  
All reds or good roans.

**HIGHFIELD, ONT.**

**Moffat, Ont.**  
won grand champion  
and junior champion  
1908, grand cham-  
ash, 1909; also won  
in groups our own  
l good young bulls,  
rate prices for sale of

**Guelph, C. P. R.**

**Shorthorns**  
yearling bulls bred  
and junior champions.  
Bulls. The grand  
sired by a bull of our  
y bulls for sale now,  
eding and prices.  
P. O., Ontario.  
R., 3 miles

**Rock Farm-1910**  
heifers of extra  
from best milk-  
ty for sale. Can  
P. O., Ontario  
R., one mile.

**Shorthorns**  
ef (imp.) = 64220=  
imported bull, or a  
your herd, be sure  
m. Long-distance  
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**Shorthorns**  
eifers of high-class  
ch-topped, sired by  
s Royal. If you  
me.  
O. and station.  
ation.

**Shorthorns**  
ham P. O., Ont.  
four choice Short-  
this old, with both  
ders. Prices easy.  
= ; also Shorthorn  
n shipping station.

# I Cured My Rupture

## I Will Show You How To Cure Yours FREE!

I was helpless and bed-ridden for years from a double rupture. No truss could hold. Doctors said I would die if not operated on. I fooled them all and cured myself by a simple discovery. I will send the cure free by mail if you write for it. It cured me and has since cured thousands. It will cure you.

Fill out the coupon below and mail it to me today

### Free Rupture-Cure Coupon

**CAPT. W. A. COLLINGS,**  
Box 30, Watertown, N. Y.

Dear Sir:—Please send me free of all cost your New Discovery for the Cure of Rupture.

Name.....

Address.....



### The "STAY THERE"

**Aluminum Ear Markers**  
are the best. Being made of aluminum they are brighter, lighter, stronger and more durable than any other. Fit any part of the ear. Nothing to catch on feed trough or other obstacle. Your name, address and any series of numbers on each tag. Sample tag, catalogue and prices mailed free. Ask for them. Address  
**WILCOX & HARVEY MFG. CO.,**  
Dept. D, 325 Dearborn St., Chicago, Ill.

### Maple Grange Shorthorns

An offering of an extra choice lot of 1-, 2- and 3-year-old heifers, Scotch and Scotch-topped, Clarets, Nonpareils, etc., sired by Royal Bruce, imp., and among them are daughters and granddaughters of imp. cows. Young bulls also for sale.  
**R. J. DOYLE, Owen Sound, Ont.**  
Phone connection.

### Clover Dell Shorthorns

Present offering: A few females of breeding age, also 1909 young stock, both sexes, at reasonable prices.  
**L. A. Wakely, Bolton, Ont.**  
Bolton Junction, on C. P. R., within one-half mile of farm.

**Shorthorns and Leicesters.** For sale: Choice-bred young bulls, and a number of 1 and 2 year-old heifers. All got by imp. sires, and out of grand milking dams. And Leicester rams and ewes of all ages. **W. A. Douglas, Tuscarora, Ont.,** Caledonia Station.

A few days after a farmer had sold a pig to a neighbor, he chanced to pass the neighbor's place where he saw their little boy sitting on the edge of the pigpen watching its new occupant.  
"How d'ye do, Johnny?" said he;  
"how's your pig to-day?"  
"Oh, pretty well, thank you," replied the boy. "How's all your folks?"

## PROOF THAT NO ONE CAN DOUBT

That Dodd's Kidney Pills Always Cure Rheumatism.

### Conclusive Evidence Given by Durham Brown, of Brantford, Ont—How and Why the Cure is Effected.

Brantford, Ont., Feb. 28.—(Special).—That Rheumatism is caused by diseased Kidneys, and that Dodd's Kidney Pills cure both the sick Kidneys and the Rheumatism, is again proved in the case of Mr. Durham Brown, of No. 2 Spring street, this city.

"I was troubled with Backache and other well-known symptoms of Kidney Disease," Mr. Brown states. "I also suffered from Rheumatism in my right side and hip to the extent that I was always, while at my work, in agonizing pain.

"After taking one box of Dodd's Kidney Pills I found an improvement, and after taking six boxes, I found both my Kidney Disease and Rheumatism entirely cured."

Mr. Brown is only one of many cases in which it has been proved beyond a doubt that the natural way to cure Rheumatism is to remove the cause. The cause of Rheumatism is uric acid in the blood, which crystallizes at the muscles and joints. Well Kidneys strain the uric acid out of the blood. Dodd's Kidney Pills make well Kidneys. That's why Dodd's Kidney Pills always cure Rheumatism.

### QUESTIONS AND ANSWERS. Miscellaneous.

#### SEED TRADE AMONG FARMERS

We have a quantity of alsike seed. The dealers appear to be stocked, and, therefore, make no offer to buy. Can we advertise and sell to farmers?

What regulations would we have to comply with to do so? M. W.

Ans.—If alsike seed does not contain more than five noxious weed seeds per thousand of the good seeds, which is, approximately, 212 seeds of any or all of the weeds mentioned in the Seed Control Act in one ounce of the alsike seed, then your correspondent may sell it in any place, or to any person, without being interfered with by the Act; but he must not represent it to be of first quality unless it contains less than 28 noxious weed seeds in one ounce. If his alsike seed contains more than 212 noxious weed seeds in one ounce, then he must reclean it to make it come within that standard; or it is his privilege to sell it to any person for the purpose of being recleaned, but not for the purpose of seeding. The maximum number of noxious weed seeds that may be permitted in one ounce of red clover seed is 92.

Your correspondent and other farmers who may have grass or clover seeds for sale are invited to send samples of them, addressed to the Seed Commissioner, Department of Agriculture, Ottawa, for test in the seed laboratory, where they will be promptly examined and reported upon as to their quality in respect to the Seed Control Act.

GEO. H. CLARK,  
Seed Commissioner.

#### FEED FOR YOUNG TURKEYS—CHICKENS FOR EARLY MARKET.

1. Would like to ask you what is best to feed young turkeys, and how to raise them?

2. What kind of chickens to raise for early market, that grow quickly, and what is best to feed them? E. S.

Ans.—1. There is considerable room for choice in selecting feed for young turkeys. Curds from sour milk, boiled rice, oatmeal, corn meal, cracked wheat, and other articles are good, but the most successful turkey-breeder we know uses only shorts, mixed with skim milk, for the first five weeks, except that he starts the young things with bread soaked in skim milk the first day, gradually substituting shorts on the second day, till the third day it is all shorts. They are mixed quite damp with the milk, but never sloppy, and fed from the hand five times a day, any that may be left over from the previous feed being given each time to the hen in the coop, and to other fowl. Sour food is a cause of bowel trouble. Leave no feed lying anywhere about on hot days; allow all the skim milk and buttermilk the young poults want to drink. At each feeding, clean the dishes and give fresh milk. Give fresh water two or three times a day in a separate vessel; also keep clean. About one-fifth of one of the daily feeds should be onion tops, and the same proportion of another may be dandelion leaves, cut up fine and mixed with the shorts. We recommend this simple and economical method with the utmost confidence. Several who have seen it in "The Farmer's Advocate," and tried it, have told us personally that they have had excellent success by following it.

2. Possibly the best all-round breed for early-market chickens is the White Wyandotte. For the first few days of a chicken's life, it should be fed nothing but mash, composed of hard-boiled eggs, bread crumbs, etc., preferably soaked in milk and pressed dry. A little later, add to the mash oatmeal, bran, middlings, corn meal, or cooked potatoes. As the chickens get older, mixed grain should be fed twice a day, and mash at noon. If they are not on free range, some meat and vegetable food should also be given.

The proprietor of a menagerie relates that one of his lions once had a thorn taken out of his paw by a French major in Algeria. The lion afterwards ran over the list of officers belonging to the regiment of his benefactor, and out of gratitude devoured both the colonel and lieutenant-colonel, whose places were then filled by the good major.

*Cheap twine is not good economy*

WE want every farmer in this country who uses our twines to go through the entire harvest season without one break in the field. We have set out to make that the standard test of all twines, and we believe that I H C twine comes nearer being such a grade than any other twine.

We have taken this matter the more seriously because we have stood back of the Sisal and Standard Sisal twines and the better grades of Manila ever since twine was made.

85 to 90 per cent of all the twine used is Sisal. It comes in a larger strand than the Manila twine; and as all binders are adjusted to use this twine, the result has been that the bigger, stronger twine has proved more satisfactory in actual mechanical binding. Its only equal is the higher grade, higher priced Manila, which also bears the I H C trade-mark.

These two twines represent the highest point of excellence thus far attained in binder twine. You get the best when you ask your dealer for an

## I H C Brand of Sisal—Standard Sisal—Manila or Pure Manila

You get a twine that has made its record in millions of wheat fields. One that is guaranteed of standard length and standard strength. One that is smooth-running; that works at a steady tension, without kinking or tangling in the twine box, and consequently without any loss.

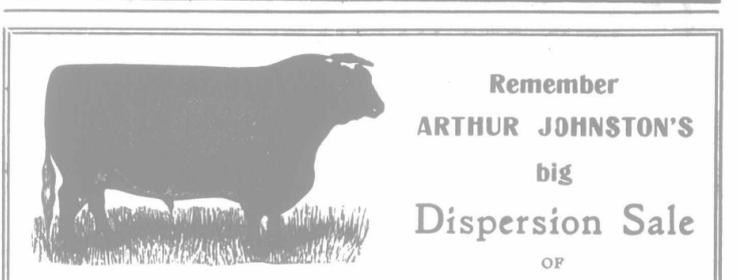
One that has the smallest percentage of breaks and that works well in the binder knottor. Good binder twine is as important to you during harvest as good weather. You cannot regulate the weather, but you can pick your twine. If you want to be positive that you will have no twine delays, choose your twine—Sisal 500-ft.; Standard (which is made from pure Sisal) 500-ft.; Manila 600-ft., or Pure Manila 650-ft.—from any of the following I H C brands:

### Deering McCormick International

These brands mean time-insurance for you during harvest. Let your local dealer know well in advance what your needs will be. The mills are working now. And if you want more interesting facts on binder twine, write the International Harvester Company of America, at nearest branch house for particulars.

CANADIAN BRANCHES: Brandon, Calgary, Edmonton, Hamilton, London, Montreal, Ottawa, Regina, Saskatoon, St. John, Winnipeg, Yorkton.

INTERNATIONAL HARVESTER COMPANY OF AMERICA, CHICAGO, U. S. A. (Incorporated)



Remember  
**ARTHUR JOHNSTON'S**  
big  
Dispersion Sale  
OF

## SHORTHORNS

Tuesday, March 8th, 1910

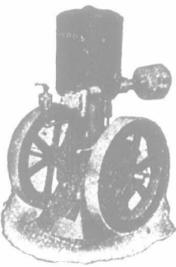
Of the whole of his noted herd of Scotch Shorthorn cattle, including a number of English milking Shorthorns. About 40 females of various ages; 9 excellent young bulls fit for service; one exceedingly good 3-year-old imported Scotch bull, one of the three best bulls ever used in the herd.

Mr. Johnston has sold his farm, and every animal will be sold, whatever the price.

TERMS: Six months' credit on approved paper, with 5 per cent. per annum off for cash. Parties will be met evening before and morning of sale.

Claremont Station, C. P. R. Pickering Station, G. T. R.

CAREY M. JONES, Chicago, Ill., Auctioneer.



Would you take \$25 to \$60 if given to you? If so, cut out this ad. and mail to us, and we will send you our

"SPECIAL ADVERTISING OFFER" for one month only.

"LONDON" GAS OR GASOLINE ENGINES 1 1/2 TO 5 HORSE-POWER

Satisfaction guaranteed. 18

Scott Machine Co., Limited, London, Canada

### JOHN GARDHOUSE & SONS

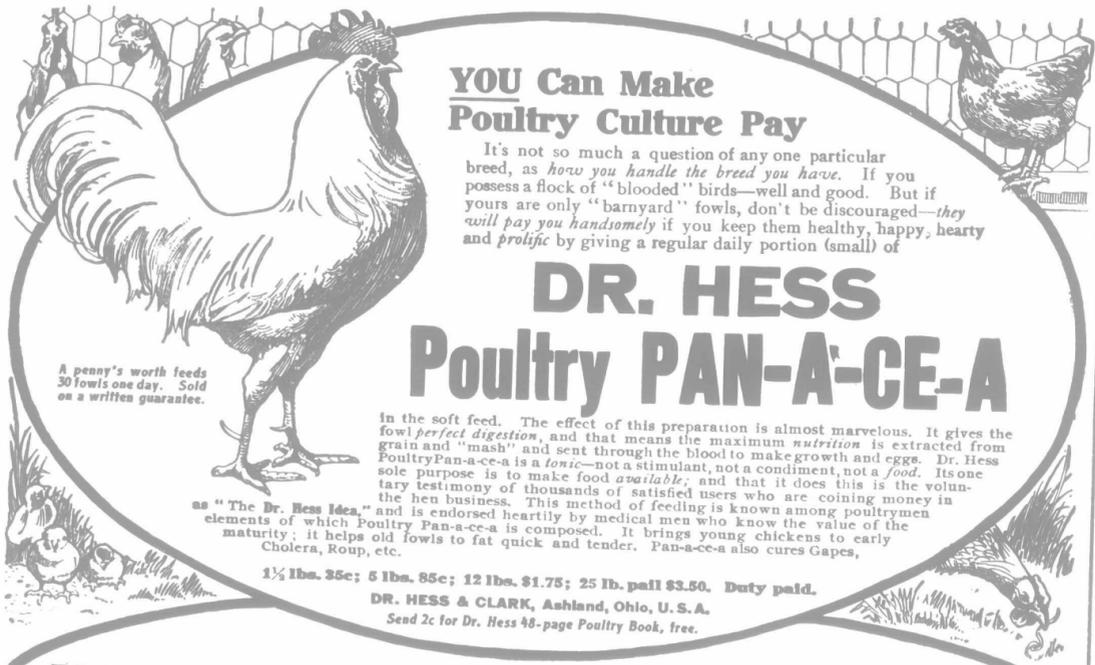
Always have for sale a number of first-class Short-horns, Shires and Lincolns, of both sexes. Drop us a line, or better, come and see for yourself. Weston Sta., G.T.R. & C.P.R. Long-distance phone in house.

HIGHFIELD P. O., ONTARIO.

### SHORTHORNS for Sale

I am offering for sale a number of females of various ages, and four first-class bulls. One two-year-old, one yearling and two bull calves. All good ones, and breeding as good as the best. Come and see me.

HUGH THOMSON, Box 566, ST. MARY'S, ONT.



**YOU Can Make Poultry Culture Pay**

It's not so much a question of any one particular breed, as how you handle the brood you have. If you possess a flock of "blooded" birds—well and good. But if yours are only "barnyard" fowls, don't be discouraged—they will pay you handsomely if you keep them healthy, happy, hearty and prolific by giving a regular daily portion (small) of

**DR. HESS Poultry PAN-A-CE-A**

In the soft feed. The effect of this preparation is almost marvelous. It gives the fowl perfect digestion, and that means the maximum nutrition is extracted from grain and "mash" and sent through the blood to make growth and eggs. Dr. Hess Poultry Pan-a-ce-a is a tonic—not a stimulant, not a condiment, not a food. Its sole purpose is to make food available; and that it does this is the voluntary testimony of thousands of satisfied users who are coining money in the hen business. This method of feeding is known among poultrymen as "The Dr. Hess Idea," and is endorsed heartily by medical men who know the value of the elements of which Poultry Pan-a-ce-a is composed. It brings young chickens to early maturity; it helps old fowls to fat quick and tender. Pan-a-ce-a also cures Cholera, Roup, etc.

1 1/2 lbs. 35c; 5 lbs. 85c; 12 lbs. \$1.75; 25 lb. pail \$3.50. Duty paid.  
**DR. HESS & CLARK, Ashland, Ohio, U. S. A.**  
 Send 2c for Dr. Hess 48-page Poultry Book, free.

*A penny's worth feeds 30 fowls one day. Sold on a written guarantee.*

**DR. HESS STOCK FOOD**

If you are a farmer and own farm stock, Dr. Hess Stock Food is a necessity in your business. It's a tonic—acting directly on the digestive organs. A small dose in the grain ration, twice a day, maintains a regular, healthy action of all bodily functions in the animal receiving it. It increases appetite and at the same time gives the digestive organs power to carry the increased load. Thus it makes more milk in the cow; more flesh on the steer; and greater spirit in the horse.

**SOLD ON A WRITTEN GUARANTEE**  
 100 lbs. \$7.00; 25 lb. pail \$2.00. Duty paid.  
 Smaller quantities at slight advance.  
 Send 2c for Dr. Hess Stock Book, free.

**INSTANT LOUSE KILLER KILLS LICE**

**FREE \$200.00 in Cash AND 500 VALUABLE PREMIUMS GIVEN AWAY**

Opposite will be found three sets of mixed or jumbled letters. The first set when placed in proper order spells the name of a popular fruit. The second set spells the name of an article in every kitchen. Can you place the above sets of letters in proper order, so as to spell the words wanted? It is not easy, but with patience and perseverance it can be done. It may take a small amount of your time, but as there are cash prizes and valuable premiums given away as an advertisement, it is well worth your time to make an effort. The judging of the above will be in the hands of three gentlemen of undoubted integrity, who have no connection with this office. No employee of ours, nor any of their relations will be allowed to compete.

There is a simple condition that must be complied with, which we will write you about as soon as we have your answer to the above. This condition does not involve the spending of one cent of your money.

Here are the sets:

- P A P E L** [The name of a popular fruit.]
- V O T E S** [An article in every kitchen.]
- A H T** [An article we all wear.]

Write your answer to the above neatly and plainly on a slip of paper, and send it to us at once. Both writing and neatness count in this contest. If you do not happen to be a good writer, have some neat penman enter the contest for you, in his or her name, and if you are awarded a prize, agree with the person who does the writing that the prize belongs to you. All this may take up a little time and be a little trouble, but the prizes are handsome and valuable, and worth many times the amount of time that anyone will give to the above. Should you read this advertisement, and yet not desire to enter the contest yourself, please point out the advertisement to some relative or friend who might be interested. This is an opportunity of a lifetime and should not be missed. Below is the prize list for the most correct, best written and neatest solution of the above:

FIRST PRIZE, - - -	\$50.00 in Cash	THIRD PRIZE, - - -	\$35.00 in Cash
SECOND PRIZE, - - -	\$40.00 in Cash	FOURTH PRIZE, - - -	\$25.00 in Cash
5th to 9th Prizes, five prizes of \$10.00 each, - - -	\$50.00 in Cash		

Also FIVE HUNDRED PRIZES, consisting of Watches, Dinner Sets, Knives and Forks, Violins, &c. Complete Illustrated Prize List and names of winners in late contests sent to any one who enters this competition.

Address **BOVEL MANUFACTURING CO., Dept. 25 Montreal**

**GLENGOW Shorthorns**

Have two excellent bulls left yet, both about ten months old, and good enough for any herd; also a number of choice heifers, all ages. For particulars write to:

**Wm. Smith, Columbus, Ont.**

**SHORTHORNS, Berkshires, Cotswolds.**

In Shorthorns, 53 head to select from: 20 calves (13 bulls and 7 heifers), 7 yearling heifers, 3 two-year-old heifers, and the balance cows from 3 years up. No Cotswolds or Berkshires to offer.

**Chas. E. Bonnycastle, Campbellford, Ont.**  
 STATION AND P. O.

**High-class Scotch Shorthorns**

We are now offering choice young bulls of serviceable age, and a number of one and two year old heifers. Most fashionably bred, and high-class shag things among them. Also one two-year-old Clyde male stallion, with size and quality.

**Goodfellow Bros, Macville, P. O., Ontario.**  
 Bolton station.

**Shorthorn Bull and Females.**

We now offer a choice 11-months-old red bull calf of good quality, straight lines and nicely fleshed. Dam, by Joy of Morning, is a good milker, of the Mysie family. Sire the well-known Golden Count. Have also for sale a good young red cow with heifer calf at foot, and a few choice heifers, all bred to Prince Victor. **J. & D. J. Campbell, Fairview Farm, Woodville, Ont.**

**CALDWELL'S MEAL**

A SHORT-CUT TO RESULTS.

If you want early maturity, fat and healthy stock, more and better milk, or if you are getting animals ready for the show-ring, try a ton of CALDWELL'S MEAL.

Aside from its own enormous feeding value, its palatability and unique digestive action make it indispensable to the thrifty feeder. It costs nothing extra to use, as it is substituted for part of the ordinary feed, and not added.

Shipped to any railway station in Ontario, freight prepaid, at \$34 per ton.

MANUFACTURED BY **A. C. CALDWELL, East Toronto, Ont.**

**SALEM SHORTHORNS!**

Young bulls and heifers, sired by the great show and breeding bull, Jit Victor (imp.), at moderate prices. If you see them you will want to own them. **J. A. WATT, SALEM, Ont.** ELORA STATION, G. T. R. and C. P. R. Long-Distance Telephone.

**VALLEY HOME SHORTHORNS AND BERKSHIRES**

If you want a first-class Shorthorn bull or heifer come and see what we have, or if you want a show animal with a choice pedigree we have them. For description of herd see Xmas Number of The Farmer's Advocate, on last page. **S. J. PEARSON, SON & CO., MEADOWVALE, Ont., P. O. AND STATION, C. P. R.**

**Meadow Lawn Shorthorns**

I am offering for sale young stock, both bulls and heifers, of richest Scotch breeding, and of high-class show type. I can show some of the best young things in the country. **P. W. EWING, SALEM P. O., Ont., ELORA STATION.**

**QUESTIONS AND ANSWERS. Miscellaneous.**

**SPRAYING FOR MUSTARD.**

I wish to ask a few questions in reference to the destruction of wild mustard, or herrick.

1. Is bluestone used with success, and what quantity bluestone to gallon of water?
  2. Kindly give address of some of the best spray-motor companies. J. G.
- Ans.—1. Yes; 10 pounds bluestone to 40 gallons water. This will cover an acre. Apply when mustard is in full bloom. If willing to make two applications, the first may be made as the mustard is coming into bloom, but in that case, the second spraying must not be neglected, else many other plants will come on and seed. Of course, to be effectual, spraying must be practiced with each grain crop for many years.
2. You will find this information in our advertising columns.

**COTTED FLEECES.**

1. Is the fleece of a sheep likely to be cotted for life after being cotted for two years? Part of my flock are bad in that respect, and the rest are all right.
2. Are the lambs from a cotted ewe likely to become the same?
3. Has grain feeding (seeds and oats) anything to do with them becoming cotted?
4. Is there any preventive or cure, as I have some good strong ewes I dislike to part with until clipping time? That is when they annoy me. W. J. L.

Ans.—1. Cotted fleeces are believed to be generally due to an unthrifty condition of the sheep, the animals having been failing in flesh at some period of the time between shearings. We do not think it necessarily follows that, being cotted once, they are likely to be so again.

2. We do not believe it follows that the lambs from cotted ewes will become the same.

3. The feeding of oats or other grain has probably nothing to do with causing the trouble. We should say that the lack of sufficient nourishment is more likely the cause.

4. The best preventive we know of is liberal feeding to keep the sheep in thriving condition.

**ROOFING—EFFECT OF NATURAL GAS ON METAL FENCES OR ROOFING.**

For roofing a barn, would you recommend wood shingles or zinc roofing? Natural gas is used here, and is said to be very hard on fences, etc., so I am in doubt as to which will be best to use. G. R.

Ans.—The analyses of natural gas that I have been able to find, show nothing in it that should be injurious to metal fences or roofs.

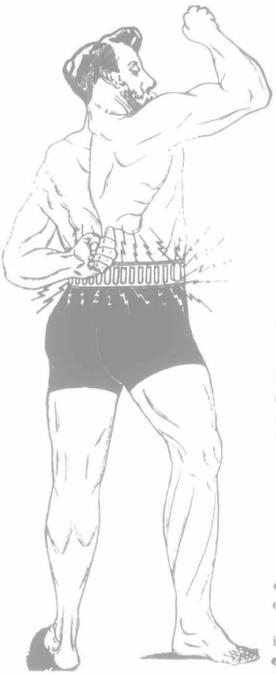
I presume the writer means galvanized iron, rather than "zinc." There is no zinc roofing made in Canada so far as I have been able to learn, although I believe some has been used in the "Old Country." Galvanized iron looks like zinc, in fact, the outer coating is zinc; hence the fact that many people call it "zinc roofing." A galvanized-iron shingle roof will cost from 75c. to \$1.00 more per square than the best shingle roof, but it is a great protection against fire from sparks. Also, if it is connected with the earth by wires, which go down deep enough to be always in moist earth, it is also a great protection against lightning. For these two reasons, I think if I were putting a roof on a barn I would use the metal shingles rather than the wooden ones, despite the slightly higher cost.

Some roofs are made of corrugated iron, laid on strips 4 inches wide and 2 feet centers. This roof can be made for about \$1.25 a square less than the wood shingles, taking into account the difference between close sheathing and strips 2 feet apart, but it does not make as substantial a roof as either the wooden shingles or metal shingle roof.

**WM. H. DAY.**

On the choice of friends  
 Our good or evil name depends.  
 —Gay.

# New Life --- New Strength THAT'S WHAT YOU NEED



I wish you could know for yourself the wonderful effect of the galvanic current on weak and nervous men. I wish you could realize the health and happiness that will be yours when this wonderful force infuses every nerve and vein of your body as accomplished through my treatment. I have been curing thousands every year, and have come to believe that my method will cure any curable case.

I use electricity applied to the body by means of the world-famous Dr. Sanden Herculex Electric Belt, in a steady, invigorating stream during your sleeping hours. You get up in the morning feeling as if born anew.

## Free Until Cured

Call, or write to me, and I will at once arrange to let you have the Belt on trial, not to be paid for until cured.

No deposit or advance payment. Send it back if it doesn't do the work. Liberal discount for cash if you prefer to deal that way.

The world has no use for a weakling. Men must be strong to-day, or give way to those who are. There is no compromise. Strength means success. Weakness spells failure. Which will you be?

How strength is lost and how it may be regained; how to increase your earning power; how to be successful in business and popular in society; how to rid yourself of rheumatism, indigestion, lame back, etc.; how to be strong, vigorous, magnetic and happy, and make life a real pleasure; all this and much more is told and pictured in a neat little book which I am distributing free for the asking. It is sent closely sealed, without marks, to anyone sending name and address. No tire-some exercises or dope-laden drugs used.

Call, or write for one, to-day.

**DR. A. F. SANDEN,** 140 YONGE STREET TORONTO, ONT.

Office Hours, 9 to 6; Saturday until 8 p.m.

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3 Choice Imported Scotch Shorthorn Bulls—yearlings.  
1 Imported 2-year-old Bull, red—an extra sire.  
10 Bulls, 9 to 16 months old—all by imported sire.  
30 Choice Young Cows and Heifers—mostly bred or have Calves at foot. Long-distance telephone. Farm ¼ mile from Burlington Jct. Sta., G. T. R. J. F. Mitchell, Burlington, Ont.

We are offering 15 choice young SHORTHORN BULLS of serviceable age. Among them are high-class herd-heads. We can supply females of all ages. Farms close to Burlington Jct., G. T. R. W. G. PETTIT & SONS, FREEMAN, ONT.

**INVERNESS SHORTHORNS**  
I can supply Shorthorns of all ages, with richest Scotch brooding and high-class individuality.  
W. H. RASTERBROOK, Freeman, Ont.

**Imp. Scotch Shorthorns**—When looking for Shorthorns, be sure to look me up. Young bulls fit for service, and females all ages; bred in the purple, and right good ones. A. C. Pettit, Freeman, Ont.

**Maple Leaf Shires, Shorthorns, Hampshire Hogs**  
1- and 2-yr.-old Shire stallions, females from yearling fillies up; Shorthorns, both bulls and heifers; a choice lot of young Hampshire pigs, both sexes, beautifully belted.  
PORTER BROS., APPLEBY P.O., BURLINGTON STA. Phone.



### 30 HEIFERS AND 29 BULLS PRESENT OFFERING.

Bred right, made right and at prices to make you feel right. Come early and get your choice. List of these, with catalogue, will be mailed to those who ask for them.

**H. CARGILL & SON, CARGILL, ONT.**

**H. SMITH, EXETER, ONTARIO.** Extra choice young bulls and heifers for sale. Write for what you want. Farm adjoins town.



Please Remember to Mention "The Farmer's Advocate" When Writing

### QUESTIONS AND ANSWERS. Miscellaneous.

#### IODINE FOR POLYURIA.

I have received your kind reply to my question re "Polyuria," this week's paper (Feb. 17th).

Will you kindly state if you want me to give the horse pure iodine, in metal form, or the potassium iodide. The druggist thinks you do not mean pure iodine, as the paper states.

W. M. G.

Ans.—Our answer was given correctly. Iodine is a non-metallic substance, though occurring as crystals, with a metallic lustre. One dram of these pure black crystals is the proper dose. Iodide of potassium is sometimes used in treatment of polyuria in larger doses of, say, two drams.

#### FEEDING: HOW OFTEN PER DAY, AND WHAT?

I have a herd of milking cows and 20 fattening steers (two years old), tied inside stable, on full feed. Good ensilage corn, wheat and oat straw, timothy hay, and mixture corn and oat chop; water in troughs before cattle.

Would like suggestion as to the preferable number of times feeding per day, hours between feeds, best order and method of feeding in order to best gain in flesh and milk production. What I wish to understand is how best to promote good digestion and assimilation.

YOUNG FEEDER.

Ans.—For feeding all classes of cattle, except, possibly, young calves, I am of the opinion that twice a day will give just as good results as more frequent feeding. Feeding twice a day, however, means this: First thing in morning, silage and cut straw or chaff mixture, meal scattered on top after feeding, when this is eaten, say in an hour or less, a feed of long hay. In the afternoon, say ten hours after feeding in the morning, or slightly shorter or longer interval, as may be most convenient, repeat, following exactly the same plan. If any straw is to be fed long, feed at night.

The best roughage mixture would be about as follows: Corn silage 100 lbs., oat chaff 10 lbs., cut straw 10 lbs. If it is desired to feed the wheat straw, it will be found necessary to chaff or cut it, and mix with silage. Give each animal what it will eat of this mixture night and morning, and about three pounds hay. Give meal as indicated below: The wording of the description of the roughage or coarse feed on hand is not absolutely clear to me. It is just possible that no silage is available, but that dry corn fodder is what is meant, in which case I would strongly advise cutting enough dry corn fodder to last a week, and mixing cut straw and chaff with it as cut, in about double the proportion mentioned. It would be found well, also, to add some water, to cause the whole mass to ferment slightly before feeding.

For feeding dairy cows, the meal mixture available is not the best possible. I would suggest the addition of bran or oil meal, or, better still, some of each. If corn and oats alone, then I would say 500 oats to 200 corn, but if bran, oats and corn, then about 300 oats, 300 bran and 200 corn. If oil meal were available, you might add about 200 to the above mixture of bran, oats and corn. Feed dairy cows at rate of about one pound of the mixture to each four pounds of milk produced. If oil meal enters into the meal mixture, then one pound meal to, say, about 4½ pounds milk produced. Be sure to give meal on top cut feed at feeding time, and stir some after scattering meal.

For the steers, the mixture of corn and oat chop will likely prove satisfactory. Would suggest about equal parts of each to start with. Later in feeding period, these proportions might advantageously be changed to 100 pounds oats, 200, or even 300, pounds of corn.

Begin by giving about one pound a day of the meal, gradually increase till giving eight or nine pounds at finishing time.

Feed steers in same way as cows as to times of feeding, preparation of feed, and mixing of meal and rough feed.

J. H. GRISDALE.

## Don't Wear A Truss

After Thirty Years' Experience I Have Produced an Appliance for Men, Women or Children That Cures Rupture.

#### I Send It On Trial.

If you have tried most everything else, come to me. Where others fail is where I have my greatest success. Send attached coupon to-day and I will send you free my illustrated book on Rupture and its cure, showing my Appliance and giving you prices and names of many people who have tried it and were cured. It is instant relief when all others fail. Remember, I use no salves, no harness, no lies. I send on trial to prove what I say is true. You are the judge, and once having seen my illustrated book and read it you will be as enthusiastic as my hundreds of patients, whose letters you can also read. Fill out free coupon below and mail to-day. It's well worth your time, whether you try my Appliance or not.

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### THE GOLDEN LAD BULL,

"Golden Fox of Dentonia," at 3 years old a Toronto champion, at the head of my St. Lambert herd. Some beautiful young stock of both sexes for sale from him.

T. PORTER, 360 St. Clair Ave., Toronto.

### ARE YOU IN WANT OF A CHOICE BULL TO HEAD YOUR HERD?

We are offering choice bull calves sired by Fountain's Boyle, who won first prize at Toronto, London and Ottawa, who also headed first-prize herd at Toronto and Ottawa. Also offering some choice heifers.

D. DUNCAN, DON, ONT. DUNCAN STATION, C. N. O.

### BRAMPTON JERSEYS

Canada's greatest Jersey herd offers male or female stock; imported or home-bred; show type or producers; one or a carload. 150 for sale. Phone.

B. H. BULL & SON, BRAMPTON, ONT.

High Grove Jerseys and Yorkshires. No better blood in Canada. Present offering: Two young bulls, 12 and 20 months old, respectively; females all ages. Prices and all information on application.

ARTHUR H. TUFTS, P.O. Box 111, Tweed Ont. When Writing Mention The Advocate

# Lump Jaw

The first remedy to cure Lump Jaw was Fleming's Lump Jaw Cure and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Advisor. Most complete veterinary book ever printed to be given away. Durable, bound, indexed and illustrated. Write us for a free copy. FLEMING BROS., Chemists, 74 Church St., Toronto, Ontario

## Second Dispersion Sale OF HOLSTEINS

AT CLOVER DELL STOCK FARM, BOS ON, ONT., ON Wednesday, March 9th, 1910 Commencing at one o'clock

MESSRS. NELLES & WOODLEY, Boston, Ont., will hold their second dispersion sale of pure-bred and high-grade Holstein cows and young stock, numbering about 35 head. The combined herd for the past two seasons at 90 cts. per 100 lbs. milk have averaged \$75.30 per cow for season. The two stock bulls, Paul DeKol Canary King (imp.) and Toskey 2nd Mercena Posh, will also be included in the sale. Terms—\$25.00 and under, cash; over that amount 8 months' credit on bankable paper; 6% per annum off for cash on all sums entitled to credit. Trains will be met at Waterford on morning of sale. Lunch at noon. For further particulars write: NELLES & WOODLEY, Boston, Ontario. JAS. DUNLOP, Auctioneer.

**WOODBINE STOCK FARM** Offer a number of Holstein cows, heifers and young bulls at moderate prices, sired by Sir Creamelle, whose breeding combines the blood of DeKol Creamelle, world's champion milk cow, with that of Duchess Ormsby, highest-testing family of the breed. Write for anything you want. Telephone connection. A. KENNEDY, Agr, Ont.

**Homewood Holsteins!** Headed by Grace Fayne 2nd's Sir Colanthe, closer related to the two greatest cows in the world than any bull in Canada. His dam, Grace Fayne 2nd, the only cow in the world to young Yorkshire duce a daughter with a record of 35.55 lbs. butter in 7 days. G. T. R. station on farm. M. L. & M. H. Haley, Springfield, Ont.

**Glenwood Stock Farm—Holsteins and Yorkshires** Holsteins all sold out. Have a few young Yorkshire cows, about 2 months old, for sale cheap. True to type and first-class. Bred from imported stock. Thos. B. Carlaw & Son, Warkworth P.O., Ont. Campbellford Station.

**EVERGREEN STOCK FARM** offers choice young Holstein Bulls, from 10 to 11 months, sired by Sir Mercena Fa orite, whose dam and gr. dam averaged 80 lbs. milk per day, and 24.60 lbs. butter per week. Their dams also in A. R. Also choice females for sale. F. E. Pettit, Burgessville, Ont.

**CALVES** Raise Them Without Milk. Booklet free. The Steel, Briggs Seed Co., Toronto, Ont.

At a Scotch christening, the godmother had difficulty in removing the child's head covering, and the minister, wishing to help her, asked the father if he could hold the child. "Hold him!" exclaimed the father, expanding his chest. "Hold him?" Man, I could fling him right ower the kirk!"

The family that eats plenty of Quaker Oats is a healthy, rugged family.

The most popular food in the world because it does most and costs least.

### QUESTIONS AND ANSWERS. Miscellaneous.

#### CONTAGIOUS ABORTION IN COWS.

Contagious abortion is prevalent in this locality, and we are anxious to find a remedy. Among the various remedies that have come to our notice is the treatment and claims of David Roberts, V. S. Do you know anything of this treatment, or the success that has attended its use. We have used carbolic acid freely, in proper proportions, and think that we have succeeded to some extent. We are using the crude acid every day, mixed with salt. We use carbolic injections, and sprinkle a solution in trenches, etc.

Will you be good enough to give the best information you can.

As far as I have yet been able to learn, antiseptics are the only treatment that has been of benefit, and, in this connection, the question of the quantity of carbolic acid that is safe and proper to give, is not very well defined, if it is known; some say 30 drops, some say 60, and even twice that quantity, mixed with milk, can safely and profitably be given. Can you give definite information on this point? What quantity of carbolic acid would you regard as a harmful dose, provided the caustic properties were neutralized in such vehicle as milk or oil?

Ans.—We quote from the published report of analysis by the U. S. Bureau of Animal Industry of the Roberts' serum treatment, so-called, which shows that "the preparation is not a serum, and contains no serum. The sample contained, approximately, 98 per cent. water, the remainder consisting of Phenols (carbolic acid), oil of cloves, and a very small proportion of what appeared to be some form of vegetable matter."

The internal administration of diluted carbolic acid, or its injection beneath the skin with a hypodermic syringe, are the methods of treatment most confidently advocated as being effective to any considerable extent as a remedy for contagious abortion. We understand that, as a rule, cows will take carbolic acid with their food, and that is the most convenient way of giving it, except that of mixing it with salt, which makes the quantity taken so uncertain that we should be skeptical as to the benefit of that method, though some have claimed to have proved it effective, the mixture having been kept where the cows could take it at will.

As to the quantity of carbolic acid necessary to be given to be effective, and what constitutes a harmful dose, we know of no definite rule. Dr. R. A. Craig, Purdue University, Indiana, is quoted as writing: "When given in the feed, the dose is two drams, or two teaspoonfuls, every other day, for two weeks. This treatment is usually begun about two months after becoming pregnant, and repeated at intervals of two or three weeks, until the last month of gestation. When given in salt, it is mixed in the proportion of two parts carbolic acid to one thousand parts of salt."

Dr. A. S. Alexander, Chicago, advocates the administration of carbolic acid in the following way: "One-half dram each every other day, night and morning, from first to last of pregnancy, mixing it in water, and then with feed, if they will take it, or as a drench, in water, or mixed with salt when the cows are at grass, at the rate of one pound of pure carbolic acid mixed in fifty pounds of salt."

Geo. Rice, Tillsburg, Ont., recommends pure carbolic acid for infected cows, given in 25-drop doses, three times daily, each dose diluted in one pint of water, and mixed with feed, for two or three days, then repeat in three days. Give every other cow or heifer in the herd exposed to contagion, 50 drops daily, in two doses, for two or three days, then repeat in three days, and continue for a couple of days. Stables should be frequently disinfected, and the hind parts of the cows as well, and cows which have aborted should not be bred for three months afterwards.

Pleasure is far sweeter as a recreation than a business. —Roswell D. Hitchcock.

# EUREKA SANITARY CHURN



There's no comparison between the ordinary wooden churn and the "EUREKA". Barrel is stoneware—top is clear glass. Besides being absolutely sanitary, the glass top enables you to see how the churning is coming along without opening the churn. Also made with Aluminum top. The "EUREKA" is the easiest churn on the market to operate. By tilting back the frame until the weight rests on the wheels, the churn can be quickly and easily moved—while the barrel remain upright. If your dealer does not handle the "EUREKA," do not take a substitute but write us for catalogue. EUREKA PLANTER CO. LIMITED, WOODSTOCK, ONT.

## DISPERSION SALE OF OVER

### 40 Head Holstein - Friesian Cattle AT MADOC, MARCH 25th, 1910,

Including the great bull, Sara Jewel Hengerveld's son, whose dam has an A. R. O. butter record: In 7 days, of 28.12 lbs.; in 30 days, of 110.18 lbs. The only cow in Canada that ever produced in official test 100 lbs. milk in one day. All females old enough are bred to this great bull, and by the time of the sale there should be 20 calves sired by him. Catalogues will be ready March 1. Positively no reserve. Sale will commence at 1.30 p. m. Stages connect with C. P. R. at Ivanhoe and C. O. R. at Eldorado, for Madoc, and will convey intending purchasers to the farm on day of sale. The G. T. R. runs into Madoc, and arrangements have been made for transportation to the farm. Cheap rates on all railways.

**J. A. Caskey, Madoc, Ont.**  
COL. D. L. PERRY, COLUMBUS, OHIO, AUCTIONEER.

**Fairview Herd CENTRE AND HILLVIEW Holsteins** (40 head, 45 females in R. O. M. Herd) headed by Brookbank Butter Baron, Bonheur Statesman and Sir Sadie Ceraucopia Clothilde. The average of dam, sire's dam and granddam is: milk in 7 days, 62.85 lbs.; butter in 7 days, 30.58 lbs. We have bulls born Mar., '09, to two weeks old for sale, from Record-of-Merit dams. Long-distance telephone. P. D. Ede, Oxford Centre, Ont. Woodstock Sta.

We will pay VERY HIGH PRICES for original collections. WRITE US NOW.

# SPRING RAW FURS RATS

Of all kinds. Write for our Complete Price Lists and SHIP NOW.

Prompt Returns. E. T. CARTER & CO., 84 Front St. E. TORONTO, ONT. We Pay Express.

**MAPLE GROVE'S SPECIAL OFFER.** A few exceptionally rich-bred bulls from one to four months old. Individually as good as their breeding. Fit to head the best herds. None better, no matter what price you pay. If you want this kind write: H. BOLLERT, CASSEL, ONT.

**For Sale—7 Holstein bulls; Tamworth pigs from 2 to 6 months old. White Wyandotte cockerels and Buff Orpington hens. BERTRAM HOSKIN, The Gully P.O., Ont. Phone connection via Cobourg.**

**AVONDALE HOLSTEINS** Offers for sale high-class Holsteins all ages. Herd headed by Prince Hengerveld Pietje, a son of Pietje 22nd's Woodcrest Lad, out of Princess Hengerveld, a daughter of Hengerveld DeKol, with record of 20.34 lbs. butter at 23 months. We also offer some fine young Yorkshire pigs of choice breeding. ARTHUR C. HARDY, BRÜCKVILLE, ONTARIO

**Lakeview Holsteins** Herd headed by Count Hengerveld Fayne De Kol, son of Pietertje Hengerveld's Count DeKol, who has five daughters averaging over 30 lbs butter in 7 days, and whose dam (26.30 lbs. in 7 days) has a daughter with a record of over 35 lbs. in 7 days. Five bull calves from nine months old down from this sire for sale. G. T. R. and Hamilton Radial close to farm. Visitors met by appointment. E. F. OSLEF, BRONTE, ONTARIO.

**High-class Holsteins**—Head of herd, Pietje nearest dams average 26.09 lbs. butter in 7 days. His sire's dam, Pietertje 22nd, has a record of 31.62 lbs. butter in 7 days. Present offering: 2 heifers, due to calve in April, at a bargain before Dec. 1 to make room; also 2 bull calves by Manner Johanna DeKol, out of officially-tested cows. WM. C. STEVENS, PHILLIPSVILLE, ONT.

**IMPERIAL HOLSTEINS** Head your herd with a son of the champion Canadian butter-bred bull, Tidy Abbecker Mercena Posh. Dam and sire's dam average 28 lbs. butter in 7 days, 110 lbs. in 30 days; 4.90 fat.

**W. H. Simmons, New Durham, Ont.**

**Lawncrest Holsteins** We offer high-class R. O. M. and Record of Performance FEMALES at BARGAIN PRICES; also young stock of both sexes, with high official backing. Write or come and see us. Good railway connection. Long-distance phone.

**F. R. MALLORY, FRANKFORD, ONT.**

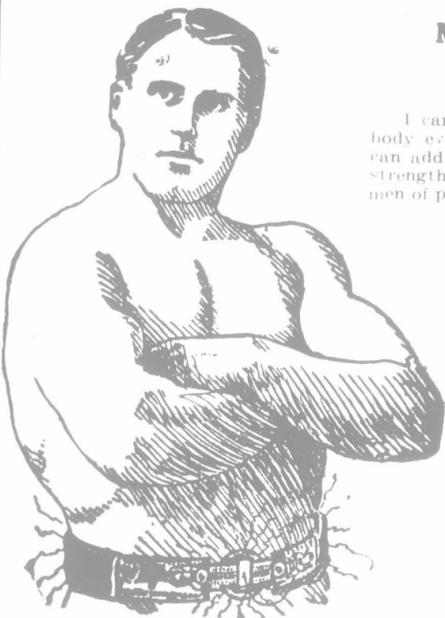
**THE MAPLES HOLSTEIN HERD** of Record-of-Merit cows, headed by King Posh De Kol. Only two sons of our old Record-of-Merit stock bull, Lord Wayne Mechthilde Calamity, left for sale, from cows with good official backing; also a few bull and heifer calves sired by King Posh De Kol and from Record-of-Merit dams.

**WILBURN RIVERS, FOLDEN'S, ONTARIO.**

**Maple Glen HOLSTEINS** For sale: Two 3-year-olds, bred to a son of Brovn Bros' 58-lb. cow, due to freshen next March. Netherland Johanna Mercedes, a 15.70-lb. Jr. 2-year-old, due last of December to King Fayne Segis, a son of world's champion cow. Also two bull calves, from tested dam, born last June, sired by King Fayne Segis. G. A. GILROY, Glen Buell, Ont. Long-distance phone.

# THIS IS ONE OF DR. McLAUGHLIN'S MEN OF MIGHT

### Men who have Regained the Vigor of Youth, who have attained the Highest Standard of Physical Manhood.



I can take a man who is thin, puny and un nourished in appearance and pour this electric life into his body every night for a few months, with the proper exercise to draw it into the muscles and tissues, and I can add twenty-five pounds to his weight, double his strength and vitality, and restore him to health and strength, as I have often done. Look at the men who have worn my Belt and you will see men of force, men of power and confidence, men who respect themselves, and are respected and admired by their fellowmen.

Do you want to feel like that? Then wear this grand life-giving appliance for two months at night. It will charge every nerve with electric life, and you will feel like a two-year-old. It puts steam in your run-down body, drives away pain, renews youth.

"I am an enthusiast," you say. Why should I not be? I have the gratitude of thousands of people who have been cured by my Electric Belt after the failure of the best physicians. I am enthusiastic because I offer suffering humanity the surest cure for the least expenditure of money that is known to-day. I have gained my success by learning how to treat my patients and then curing them. I understand the action of the current on the human system. My years of experience have taught me how to apply electricity. I charge nothing for my knowledge, knowing that it helps me. My patients are my friends. They are advertising my business.

Every man and woman who comes into my office gets a practical illustration of my method of cure, and goes away convinced that the claims I have made for it are true. After seeing original letters from the cured (letters which I am permitted to exhibit), their doubts are expelled, and they know that my Electric Belt makes strong men out of weak men, gives buoyancy and ambition to the man who formerly got up tired every morning. They find that weak organs and atrophied parts are made as sound and strong as Nature intended. They read grateful letters from men and women who were cured by my Belt of Rheumatism, Backache, Lumbago, Sciatic, Stomach, Liver, Bowel, Kidney and Bladder Troubles. They also see the evidence of some wonderful cures of Locomotor Ataxia and some form of paralysis.

Dear Sir,—I wish to say that your Belt has done me more good than all the medicine I ever took. I used it every night for about three months, and since then I do not need it. I can sleep good, and feel as good as ever I did. I am only too pleased that I made up my mind to get your Belt. You have my permission to use this letter if you wish, as I will be only too pleased if it will help anyone to get a cure.

JOHN HUNT, Davisville, Ont.

Dear Sir,—I am well satisfied with your Belt, as it had a wonderful effect upon me, as is shown by the fact that at the time I bought it I was in such poor health that my recovery was almost despaired of, but the wonderful effect of your Belt was felt before I had it one week. It has given complete satisfaction, and I consider the expenditure I made is a mere trifle as compared with the wonder it has worked in my case. I hope your Belt will prove such a help to others as it has to me. I never neglect the opportunity to recommend your Belt at any and all times.

CHAS. RUSE, 181 Sanford Ave., Hamilton, Ont.

Dear Sir,—In reference to the Electric Belt I purchased of you several months ago, I have much pleasure in stating that the stomach trouble has practically disappeared, and that the vital weakness has improved wonderfully. In addition I might add that my general health has greatly improved, which I am confident is due to the wearing of your Belt. You are at liberty to make free use of this letter, as I feel sure that were your treatment more widely known, the drug doctor would not be so much resorted to.

A. J. JONES, 25 Davenport, Toronto, Ont.

"Anyone who is skeptical about your Belt, tell them to write to me. I feel like a new man," says ALEX. MARR, Russell, Ont.

Dear Sir,—Your Belt has worked wonders with my back. It was very bad, but it seems quite strong now, and my general health is built up again in these few months far beyond my best expectations. In short, I count your Belt a heaven-sent blessing to me and my family. I cannot recommend it too strongly, as I shall feel it my bounden duty as well as my greatest pleasure.

THOS. JORDISON, Chatsworth, Ont.

Now, if you are sick or in pain, or a weak man or woman, and if tired of drugging your system, paying out money without result, try my Belt. You have nothing to lose and everything to gain by accepting my liberal offer. If it fails to cure it costs you nothing. Remember you can

## PAY WHEN CURED

FREE BOOK.—Write for my beautiful Illustrated Book, showing how my Belt is used. I want you to read this little book and learn the truth about my arguments. If you suffer from rheumatic pains, weak kidneys, loss of vitality, prostatic troubles, nervous spells, varicocele, or any ailment of that kind that unmans you, this book contains information you should know; it explains my method thoroughly. I send it closely sealed, without marks, free upon application. If you are not the man or woman you should be, call or write at once. CONSULTATION FREE.

Put your name on this coupon and send it in.

DR. M. S. McLAUGHLIN, 112 Yonge St., Toronto, Can.

Please send me your free Book, in sealed envelope, without marks, and oblige.

NAME .....

ADDRESS ..... Write plainly.

I HAVE A BOOK ESPECIALLY FOR WOMEN, ALSO.

## ELECTRIC BEANS

ARE A BRACING

## BLOOD & NERVE TONIC.

They are unequalled for Biliousness, Sick Headache, Constipation, Heart Palpitation, Indigestion, Anemia. Write for sample and booklet of testimonials. See a box at all dealers or THE ELECTRIC BEAN COMPANY LIMITED OTTAWA.

**CRAIGIE LEE** Ayrshires Have won more money the last 4 years than all competitors combined, they are heavy producers and high testers. Stock of both sexes for sale, of show-ring form.

**H. C. HAMILL**, Box Grove P.O. Markham, G. T. R. Locust Hill, C. P. R. Bell phone connection from Markham.

**Ayrshires** Four young bulls, all bred on fashionable dairy lines, out of famous dams; will be sold worth the money. Females all ages. **N. DYMENT**, Clappis n's Corners, Ont.

**Ayrshires** from a Prizewinning Herd—Have some nice bull and heifer calves for sale at reasonable prices. For particulars, etc., write to **WM. STEWART & SON**, Campbellford Stn., Menie P. O., Ont.

## QUESTIONS AND ANSWERS. Miscellaneous.

### PETITION FOR RURAL DELIVERY ROUTE.

Will you kindly explain clearly the conditions and the steps a person has to take to get free rural-mail delivery. How many names have to be got in order to get it, etc.

Ans.—Those concerned should apply for a form of petition to the Post Office Department, Mail Contract Branch, Ottawa, or to the Post Office Inspector of the postal district in which the proposed rural-delivery route is situated, which petition should be circulated over the route and signed by those who are willing to accept rural delivery on the terms and conditions set by the Department, and, when completed, should be forwarded to the Post Office Department, or to the Inspector of the Division.

A copy of the regulations governing rural delivery will be forwarded by the Department, or by the P. O. Inspector, on request.

We are not aware that any limit has been put on the number of signatures necessary to a petition, in order to have it receive the consideration of the Department.

## Burnside Ayrshires

Having disposed of my 1909 importation, I intend leaving about March 1st for another lot. I expect to have a number of bulls through quarantine by first week of June. Orders entrusted to me will be carefully attended. We have a few young bulls fit for service on hand of choice breeding, and females of all ages. Phone, etc.

**R. R. Ness**, Burnside Stock Farm, Howick, Que.



## AYRSHIRES AND YORKSHIRES

Can fill orders for car lots of Ayrshires, or for good grade dairy cows. Young bulls, cows, heifers or calves of choice breeding. Orders taken for imported stock for 1910. A few young Yorkshires. Write us for anything you need in above lines.

**ALEX. HUME & CO., MENIE, ONT.**

## Stonehouse Ayrshires

all ages. Am now booking orders for bull calves.

36 head to select from. All imported or out of imported sire and dam. For sale: females of



**Hector Gordon**, Howick, Quebec.

## ISALEIGH GRANGE AYRSHIRES!

Our herd were all selected on their ability to produce a heavy yield of milk. We have a number of 40, 45 and 50 lb cows, imported and Canadian-bred. From them are young bulls and heifers for sale. None better. **JAMES BODEN**, DANVILLE, QUEBEC. ISALEIGH GRANGE FARM.

**Shannon Bank Ayrshires** and Yorkshires. Am now offering young bulls and heifers, true to type and high in quality. Young Yorkshires of both sexes. **W. H. Tran & Son**, Locust Hill P. O. & Sta., Ont.



**HILLCREST AYRSHIRES**.—Bred for production and large teats. Record of Performance work a specialty. Fifty head to select from. Prices right. **FRANK HARRIS**, Mount Elgin, Ont.

### Troubled With Backache For Years.

New Completely Cured By The Use Of

#### DOAN'S KIDNEY PILLS.

Mrs. W. C. Doerr, 13 Brighton St., London, Ont., writes:—"It is with pleasure that I thank you for the good your Doan's Kidney Pills have done me. I have been troubled with backache for years. Nothing helped me until a friend brought me a box of your Kidney Pills. I began to take them and took four boxes, and am glad to say that I am cured entirely and can do all my own work and feel as good as I used to before taken sick. I am positive Doan's Kidney Pills are all you claim them to be, and I advise all kidney sufferers to give them a fair trial."

Let Doan's Kidney Pills do for you what they have done for thousands of others. They cure all forms of kidney trouble and they cure to stay cured. Price, 50 cents per box or 3 boxes for \$1.25 at all dealers or mailed direct on receipt of price by The T. Milburn Co., Limited, Toronto, Ont.

When ordering specify "Doan's."

### Hampshire Down Sheep.

**SPLENDID MUTTON, GOOD WOOL, GREAT WEIGHT.**

Unrivalled in rapid maturity, hardness of constitution, adapted to all climates, and in quality of MUTTON AND LARGE PROPORTION OF LEAN MEAT.

Champion against ALL breeds at the great Smithfield Show, London, 1908.

Full information of Secretary, Hampshire Down Sheep Breeders' Association, SALISBURY, ENGLAND.

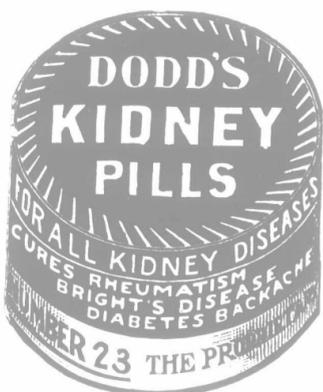
**LABELS**

Metal Ear Labels for Cattle, Sheep and Hogs.

The old standby for all who have stock liable to stray, or to dispute as to identification or ownership; for herd or flock records, or for general convenience. Do not be without them. Send your name and address for free circular and sample. It is no trouble, and may save you much. Write to-day.

F. G. JAMES, BOWMANVILLE, ONTARIO.

When Sir Andrew Clark, Mr. Gladstone's physician, recommended a patient to drink wine, the latter expressed some surprise, saying he thought Sir Andrew was a temperance doctor, to which Sir Andrew Clark replied: "Oh, wine does sometimes help you to get through work; for instance, I have often twenty letters to answer after dinner, and a pint of champagne is a great help." "Indeed," said the patient, "does a pint of champagne really help you to answer the twenty letters?" "No, no!" said Sir Andrew; "but when I've had a pint of champagne, I don't care a rap whether I answer them or not!"



### QUESTIONS AND ANSWERS. Miscellaneous.

#### THE MENDEL THEORY.

I saw in "The Farmer's Advocate" a year or so ago, an article on the "Mendel Theory of Breeding." Refer me to the number and date in which it appeared.

W. W. C.

Ans.—See "The Farmer's Advocate" of October 18th, 1906.

#### SCRATCHES.

Please publish what is the best cure for scratches on horse. I have been feeding him sulphur for about six weeks, but find it a very slow cure.

SUBSCRIBER.

Ans.—Feed lightly on grain, and give regular exercise when not at work. Keep the parts dry and clean. Curative treatment in cold weather consists in purging with six to ten drams aloes, according to size and weight, and two drams ginger, following up with one to one and a half ounces Fowler's Solution of Arsenic, twice daily, for a week. Local treatment consists in applying warm poultices of linseed meal, with a little powdered charcoal, every six or seven hours, for a couple of days and nights, and then applying, three times daily, the oxide-of-zinc ointment, composed of one dram oxide of zinc to six drams lard. To this ointment carbolic acid may be added at the rate of 20 drops carbolic acid to the ounce.

#### BLOODY EGGS.

Some of fowls are laying eggs which are bloody. Could you suggest a cause or remedy? They are fed grain and dry bran, and cut bone and oyster shell in the way of grit, with milk to drink.

JOHN.

Ans.—Eggs containing blood clots, or small quantities of blood, are not infrequently met with, and the best authorities attribute the cause to the continued feeding of rather stimulating food, and rapid laying, which perhaps means that the oviduct is to a greater or less extent inflamed. A change in rations is to be recommended, with the addition of green food. It is presumed that the cut bone is fed in proportion of one pound to every fifteen fowls, three times per week. This may be cut down to twice per week, until hens run out. Cooling food, and a liberal allowance of green food, are requisite. Meat, pepper, or any sort of irritating food, is to be avoided. If treatment is found necessary, Dr. Salmon recommends 20 grains of Epsom salts and bicarbonate of soda 2 grains, to be followed by one-half drop tincture of acetic acid three times per day. The fowls in this case have evidently been well cared for, and nothing serious is expected if recommendations are carried out.

A. G. G.

#### LETTING CROPS ON SHARES.

I live on a farm about four miles from town, in a good farming locality, and not being able to get help, I would like to rent, or let on shares, part of my land.

1. What rent should I get per acre for fall-plowed land? Oats here yield about fifty bushels per acre.
2. What share would be fair to a renter taking off the crop of grain? I do the seeding and threshing.
3. What share should I get to let my hay on shares; hay yield about two tons per acre?

This land is all tile drained.

W. A. L.

Ans.—1. The renter has to take chances. In most localities, about \$10 to \$12 per acre would be enough rent for him to pay for plowed land, ready for spring seeding.

2. Merely harvesting and hauling in a crop of grain requires but a small part of the total expense and labor, and should be done for about one-sixth of the crop.

3. The labor involved in haying is sometimes much greater than is required for harvesting grain. You might well claim, however, about two-thirds to three-quarters of the crop. Considerable depends on the local value of hay, the kind of hay, and the method of making.



### FARMERS AND DAIRYMEN

IF YOU WANT THE BEST ASK FOR

### Eddy's Fibreware

Pails, Tubs, Milk Pans, Handy Dishes, etc., etc. Eddy's Fibreware lasts longer than any other and COSTS LESS. It is seamless. Has no hoops. Never leaks. Does not rust. Will not stain water, milk or other liquids.

EVERY GROCER KEEPS THEM. MANUFACTURED BY THE

E. B. Eddy Company, Ltd., Hull, Can.

ALWAYS EVERYWHERE IN CANADA, ASK FOR EDDY'S MATCHES

### I HAVE GREAT, THICK, ROBUST SHROPSHIRE

YEARLING AND TWO-YEAR-OLD RAMS

and a lot of grand Shropshire and Cotswold lambs, ewes and ewe lambs of high class, both lots and all of the best breeding. Will sell these lots or singly at prices you can afford to pay. Also dale mares, and a few beautiful Welsh ponies will also be priced at attractive figures.

Robert Miller, Stouffville, Ontario

I found him in the shining of the stars, I mark'd him in the flowering of His fields.

—Tennysen.

Oxford Down Sheep, North of the line. Hogs.—Present offering: Lambs of either sex, prices, etc., write to John Cousins & Sons, Harrisburg, Pa. Buena Vista Farm.

### MAPLE VILLA OXFORDS AND YORKSHIRES.

Present offering: Excellent ewes, choice rams, and the best lot of lambs I ever offered; all sired by imported rams. Yorkshires of both sexes and all ages. Boars fit for service. Sows ready to breed. A high-class lot. Satisfaction assured.

J. A. CRESWELL, BOND HEAD P. O., ONT., BRADFORD or BRETON STAS.

### FARNHAM OXFORD DOWNS.

The Champion Flock, The Oldest Importers, The Largest Breeders in America.

See American Oxford Down Record. We are offering a number of first-class yearling ewes from imported sires, and bred to champion imported ram; also a number of ram and ewe lambs. Prices reasonable. HENRY ARKELL & SON, Arkell, Ont. Arkell, C. P. R.; Guelph, G. T. R. and Telegraph.

### Improved CHESTER WHITES

Young sows of both sexes, age. Some already bred. Also choice young pigs of both sexes, 6 to 8 weeks old. Joe H. Rogers, first-prize boar at Toronto and London, also at head of home, also two grand young sows.

Chas. E. Rogers, Thames Valley Farm, Dorchester, Ont.

### CHESTER WHITE SWINE FOR SALE

100 to choose from. I have several litters sired by Ohio Chief, my latest importation, a magnificent boar of the long improved bacon type; also a number of litters from other choice boars, and my sows cannot be beaten. I import only the best.

J. H. M. Parker, Lennoxville, Quebec. "Willowdale Stock Farm."

### Willowdale Berkshires!

Young sows ready to breed, boars ready for service, young pigs just weaned, all choice stock and bred in the purple. Everything guaranteed as represented. Long-distance phone. J. J. WILSON, Importer and Breeder, Milton P. O. and Station. C. P. R. & G. T. R.

### PINE GROVE BERKSHIRES!

Sows bred and ready to breed. Nice things, three and four months old. W. W. BROWNIDGE, Milton, C. P. R., Ash Grove, Ont. Georgetown, G. T. R.

### DUROC - JERSEY SWINE

Imported and home-bred. Sows ready to breed. Boars fit for service, and younger ones either sex. Also Embden geese. MAC CAMPBELL & SONS, HARKWICH, ONT.

### MONKLAND YORKSHIRES

With very nearly 100 sows in breeding, of modern type and high-class quality, our herd will stand comparison with any in Canada. We are always in a position to fill large or small orders with despatch. Long-distance phone. JAMES WILSON & SONS, FERGUS, ONT.

### SUMMER HILL HERD OF Large English Yorkshire Hogs

We expect to land a very select lot of English Yorkshire pigs at the farm in April, and nothing but really high-class breeding and show stock will be included in the lot. They will be from 6 months up to 2 years old, and will include 50 young sows in farrow, selected from the leading herds of England and Scotland. Parties wishing to secure new blood for what you will want, and have your selections made early. Farm phone 2471 Hamilton. R. F. D. 2 D. C. Flatt & Son, Millgrove, Ont.

### Newcastle Tamworths and Shorthorns

For immediate sale. Several young sows due to farrow in March and April and May. Sired by my imported boar, and out of sows the get of Colwell's Choice, Canada's champion boar in 1901-2-3-5, also a choice lot of pigs, both sex, 2 to 4 months old. Two choice Shorthorn bulls, 14 and 15 months old. Also half a dozen choice heifer calves, yearlings and two year-olds in calf. Prices right. Bell phone A. A. Colwell, Box 9, Newcastle, Ont.

### OHIO IMPROVED CHESTER WHITES—Large

est strains. Oldest-established registered herd in Canada. Young sows in farrow. Choice pigs 6 weeks to 6 months old. Pairs furnished not alone. Express charges prepaid. Pedigrees and sale dates every guaranteed. E. D. GEORGE, Patnam, Ont.

### PINE GROVE YORKSHIRES

including all the firsts and sweepstakes for best dressed carcasses, both at Guelph and all the progeny of imported stock of superior excellence. Joseph Featherston & Son, Streetsville, Ont.

### Hilton Stock Farm Holsteins and Tamworths.

Present offering: 6 yearling heifers and several younger ones. All very choice. Of Tamworths, pigs of all ages and both sexes, pairs not akin. R. O. MORROW & SON, Hilton, Ont. Brighton Tel. and Sta.

### POPLAR LODGE SOUTHDOWNS AND BERKSHIRES—For sale:

A high-class show flock of Southdowns, also shearing rams and ewes, and ram and ewe lambs. Berkshires of both sexes and all ages; right good ones. An honest representation is my motto. SIMMON LEMON, Kettleby P. O., Ont., Aurora Station.

### Large White Yorkshires

Am offering at the present time a fine lot of young sows, bred to farrow during Mar. and Apr. Also young pigs, both sexes, from 2 to 4 months old. Pairs supplied not akin. Write or call on

H. J. DAVIS, WOODSTOCK, ONT. Long-distance Bell phone. C. P. R., G. T. R. main line



**Two Good Things For Farmers**

—a trouble-proof fence and a trouble-proof fencepost.

**STANDARD Woven Wire Fence**

is all No. 9 hard drawn steel wire, heavily galvanized—with "The Tie That Binds", which locks on the running wire and lies smooth on both sides.

OUR NEW STEEL POSTS are bent at right angles, which gives the necessary strength without the expense of solid or tubular steel.

Don't buy blindly. Learn the facts about wire fences in our book. Sent free if you write—also sample lock.

The Standard Wire Fence Co. of Woodstock Limited, Woodstock, Ont. and Brandon, Man.

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Advertise your fancy stock by means of first-class

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DESIGNERS. ILLUSTRATORS. ENGRAVERS

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Farmers wishing to sell their farms should communicate with us. We make a specialty of this, and have constant inquiry for good Stock, Grain and Fruit Farms.

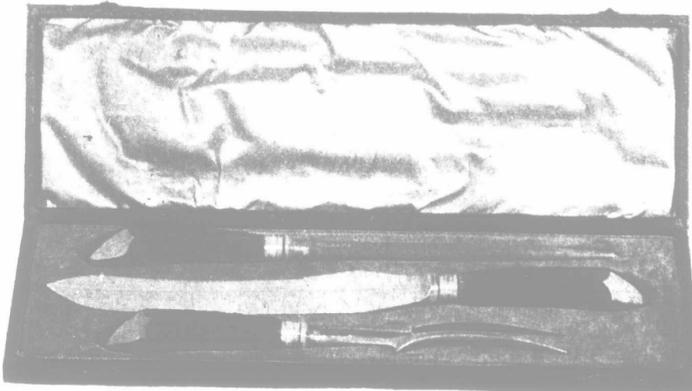
**The UNION TRUST COMPANY, Ltd.**  
Real estate Department,  
174-176 Bay St., TORONTO, ONT.

**Boys for Farm Help** The managers of Homes invite applications from farmers, or others, for the boys who are being periodically from England to be placed in this country. The young immigrants are mostly between 11 and 13 years of age; all will have passed through a period of training in Dr. Barnardo's Homes Institutions, and will have been carefully selected on a view to their moral and physical suitability for Canadian life. Full particulars as to the conditions upon which the boys are placed may be obtained upon application to Mr. Alfred B. [unclear] Agent Dr. Barnardo's Homes 50-52 [unclear] Toronto.

**REWARD!!**

**Any Subscriber May Have Date On His Own Label Advanced Twelve Months By Sending Us the Names of Two New Subscribers and \$3.**

Every Premium We Offer Is Exceptionally Good Value. We Give Greater Value in Our Premiums Than If You Were Paid a Cash Commission. Note the Following List:



**BARON'S PRIDE.** Handsome picture of the Champion Clydesdale. Size, 17 x 13 in., including margin. Suitable for framing. 1 new subscriber.

**NICKEL WATCH.** Good timekeeper. This watch has taken well. 3 new subscribers.

**BIBLE—Old and New Testaments** in beautifully clear, legible type; references; concordance to both Old and New Testaments. Index to names of persons, places and subjects occurring in the Scriptures. Twelve full-page maps, all excellent in type and outline. This book is of most convenient size, being 7 x 10 inches when open; weight 23 ounces; with strong and flexible binding; and would sell at regular retail price for \$1.00 or over. Sent postpaid to any subscriber for sending in only 2 new subscriptions accompanied by \$3.00.

**40-PIECE AUSTRIAN CHINA TEA SET,** handsome and dainty in shape, coloring and design; ordinarily retailing from \$4.00 to \$6.00, depending on locality. 4 new subscribers.

**FARMER'S ADVOCATE KNIVES,** manufactured by Jos. Rodgers, Sheffield, England. Jackknife and Penknife, both nickel-handled and having two blades. These knives were manufactured specially for the Farmer's Advocate. Worth, retail, \$1.00 each. 1 new subscriber for each knife.

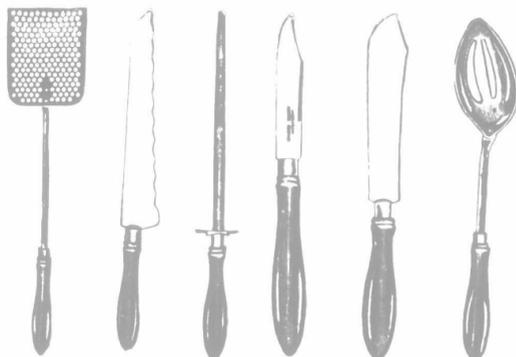
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**"CARMICHAEL": A Canadian Farm Story.** Bound in cloth, illustrated. Just the thing for Christmas or Birthday Gift. "Far above the ordinary run of fiction," says the Buffalo Courier. "Should be in all the homes of the people," Toronto World. 2 new subscribers; or cash, \$1.25.

We must have honest workers. Changing the name from one member of the household to another, or deception of any kind, will not be allowed. If discovered, the premium will be withheld.

These premiums are given only to our present subscribers for sending in bona-fide new yearly subscriptions, accompanied by \$1.50 each.

**SET STAGHORN CARVERS.** High-class goods. First quality of steel, and staghorn handles and handsome nickel mounting. These carvers will retail at \$3.50 to \$5.00 per set. 4 new subscribers.



**A COMPLETE KITCHEN EQUIPMENT. A UTENSIL FOR EVERY PURPOSE.** All made of the highest grade of crucible steel, carefully tempered, ground and polished by the latest improved process. Rubberoid finished hardwood handles, mounted with nickel-plated ferrules. Now is your opportunity to supply your kitchen with a complete cutlery outfit. All six articles sent to any subscriber for sending in only 1 strictly new subscription and \$1.50.



**SET SCISSORS.**—One self-sharpening scissors, one embroidery scissors, one buttonhole scissors—will cut buttonhole any size. All good quality steel. For only One New Subscriber to The Farmer's Advocate. Must be sent by present subscriber.

Send Postal for Sample Copies and Agent's Outfit and Start to Canvass at Once.

**The William Weld Company, Limited,**  
LONDON, ONTARIO.



# Every Farmer's Wife in Canada Ought to Read this Advertisement



**I**F you, Madam, are a farmer's wife, you should use your influence to get your husband to roof the house and barn with Oshawa Galvanized Steel Shingles. For these practical reasons:—

### Safe Against Lightning

Every thunderstorm that passes over your place endangers his life and your own, and threatens damage or destruction to the property. But there would be no such danger if the farm buildings were roofed with Oshawa shingles. They protect any building against lightning—far better than any lightning-rod system possibly can.

### Safe Against Fire

And, at certain times in the year, the house you live in and the barn nearby is in danger from fire—flying sparks from the threshing machine; sparks from the kitchen chimney; sparks from passing locomotives; sparks from forest fires, perhaps. Farmer's roofs catch fire in many ways—and you are different from most farmer's wives if you do not dread this ever-present danger. You need not dread it at all when the buildings are covered with a seamless steel fireproof Oshawa shingled roof.

### Improves Cistern Supply

Probably you depend a good deal on cistern water. An Oshawa-shingled roof keeps your cistern fuller, and the water is cleaner, tasteless, without odor. It never can be from a wood-shingled roof. It always is from an Oshawa-shingled roof.

### Costs Very Little

When you speak to your husband about this, ask him to send for the instructive and handsomely-illustrated free book called Roofing Right. He will see, when he reads that, that the actual cost of an Oshawa-shingled roof is less than five cents per year for a hundred square feet of roof surface. He will see that this roofing is guaranteed to satisfy in every sense for twenty-five years, or he gets a new roof for nothing. He will see that it will pay him well to cover his house and barn with a roof that is guaranteed wet-proof, wind-proof, fireproof and lightning-proof for a quarter century, and that will be a good roof in every sense for fully 100 years.

### Use Your Influence

Interest yourself in this vital matter. It directly concerns you. Get your husband to inquire into it. Get him to send for the free book—now—to-day. Or send for it in your own name. Do that, anyway. You will be interested in what the book tells you; and it is important that you, as well as himself, should know all about roofing, and about Roofing Right in particular. Send now for the book, please.

**O**SHAWA STEEL SHINGLES are made of 28 gauge steel, specially toughened and heavily galvanized to make them rust-proof. Thus they weigh about SEVENTY-EIGHT



pounds to the square. With the box about 88 pounds to the square.

When considering metal shingles always learn THE WEIGHT OF METAL per square offered and be sure that the weight is of the METAL ONLY.

Make the weight test yourself. First be sure the scales are accurate. Then unbox a square of Oshawa Shingles and weigh them. Note that the weight averages 78 pounds WITHOUT THE BOX.

Don't go by the box weight. Some boxes weigh fourteen pounds or more.

*G. A. Pedlar*

**D**ON'T stop when you have Oshawa-shingled your roofs. That is only the first step towards making a house modern, or a barn what a barn should be. Go on and plate your house inside and out with steel. Cover the surface of your barn with steel. In a word, "Pedlarize" every building on your farm. This way:

### Make Your House Fireproof

Finish the interior of every room in your house with Pedlar Art Steel Ceilings and Side-Walls. These are made in more than two thousand beautiful designs, the patterns stamped accurately and deeply into the heavy and imperishable metal. They cost less than plaster in the first place; and they will be like new when a plaster ceiling or wall is cracked to the danger point—which doesn't take long as a rule. They are easily put in place. They can easily be painted and decorated.

### Make Your House Sanitary

Then, if you surface the exterior of the house with Pedlar Steel Siding—it is made to simulate brick, rough stone, cut stone—these Ceilings and Side-Walls and an Oshawa-shingled roof gives you a residence that is more nearly fireproof than the "skyscrapers" of the great cities. Also, such a house will be much warmer in winter than if it were built of solid brick—and so it will save its cost in fuel-savings. It will be cooler in summer. It will be sanitary inside—you can wash the ceilings and walls clean with soap-and-water. It will be a handsome, substantial, and enduring proof of your judgment in choosing the modern building material—steel—Pedlar-made Steel.

### Make Your Barns Safe

With Pedlar Steel Siding you can finish the outside of your barn most economically, and your cattle will thrive better in bitter weather than if they were housed in a solid concrete barn. This heavy-gauge seamless steel finish, keeps out the wind and keeps in the animal heat. It saves in lessened feed-bills enough to pay its cost over and over. It costs but little; it is simple to put on; and it will outlast the building's very timbers. Most important of all, it—with Oshawa Steel Shingles for the roof—makes barns practically proof against fire, entirely free from every kind of dampness, and proof against lightning.

### Learn About Pedlarizing

At the same time you send for your free copy of Roofing Right Booklet No. 10, ask us for particulars about these other Pedlar specialties. We will send you samples of any of them; prices; illustrations; and samples of the Oshawa Steel Shingle as well—all just for the asking.

**GET SEVENTY-EIGHT POUNDS OF STEEL TO THE SQUARE  
GET A TWENTY-FIVE YEAR GUARANTEE**



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