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# THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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1887  
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FOUNDED

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

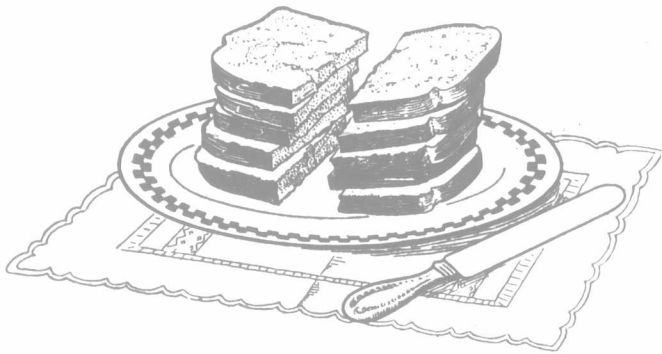
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MAY 17 1912 No. 1019

VOL. XLVII.

LONDON, ONTARIO, APRIL 4, 1912.

Publications Branch.



## Eat More Bread

Few people eat enough of what is rightly called "the staff of life."

FOOD authorities declare that wheat is the KING of all foods. It is the best food for growing children, the best for old age, the best for every age of life. It is best chiefly because it contains most of the life-building nitrogen, combined with the proper degree of starch.

Of all the forms in which wheat may be eaten, bread stands at the top. There is no food yet created that can take the place of good bread—"the staff of life."

The better the flour you use, the better, more wholesome bread you'll make. And better bread means the use of PURITY FLOUR.

The bread will be better, higher class, because PURITY FLOUR consists exclusively of the high-grade portions of the best Western hard wheat. There are no low-grade portions of the hard wheat berries,

nor soft wheat flour, in it. It is *all high-grade*—a strong, vigorous flour. The loaves will be more nutritious, because they contain the high-quality nitrogen, gluten, starch and phosphates—the blood-enriching, body-building and life-sustaining elements of the world's strongest wheat. Think of the added enjoyment of eating bread

you know is so chock-full of wholesomeness. Think of the good it will do your children, your husband and yourself. Think of the wisdom of eating lots and lots of it, for it is a fact known to the medical profession, that few people eat enough of "the staff of life."

Of course PURITY FLOUR will cost you slightly more than ordinary flour. It's worth the difference. And it will make "more bread and better bread" for you than you can obtain from the same weight of ordinary flour.

And the pastry PURITY FLOUR makes! It's more delicious too, if you take the precaution to add more shortening than is required with ordinary flour. The extra strength of PURITY FLOUR requires the addition of more shortening for best pastry results.

Think of the PURITY trademark when you buy flour.

Add PURITY FLOUR to your grocery list right now.

## PURITY FLOUR

"More bread and better bread."





## "IDEAL" FENCE----"MADE-TO-LAST"



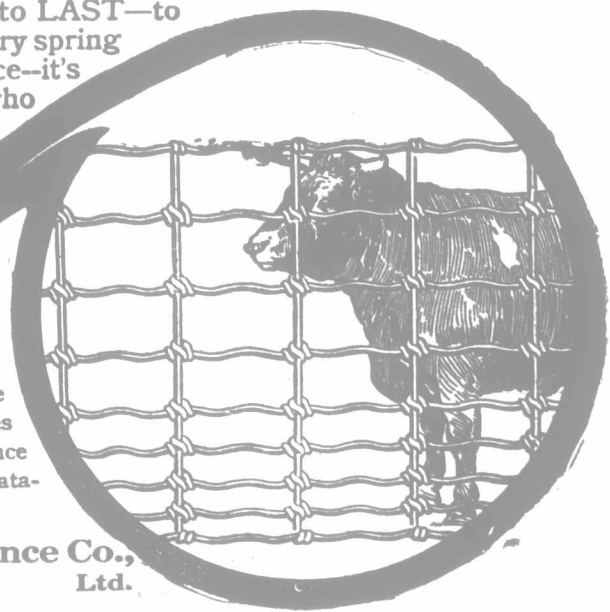
When you invest good money in a wire fence you want that fence to LAST—to stay taut and staunch year in, year out, without needing repairs every spring. And you get fence that lasts when you choose "IDEAL" Farm Fence—it's made with you in mind—made to be THE fence for the man who invests his money wisely. Every inch of every "IDEAL" Fence is FULL SIZE STANDARD Number Nine

Gauge hard drawn steel wire—tough, highly tempered, springy, heavy wire of the best quality possible. Some fencemakers use 9 gauge for the horizontals and softer, weaker wire for the stays—but not "IDEAL" Fence. It's ALL heavy hard wire—that's why "IDEAL" is the fence that outweighs all others; and THAT'S why you get more wire and more wear for your dollars when you buy this perfected farm fence.

### Just Trust "Ideal" Woven Wire Fence

The galvanizing stays with it; the lock won't loosen under any strain a fence ever conceivably will have to stand; and the strength, the tautness, the springiness, the SERVICE is THERE—there every time in every foot of "IDEAL" Fence. Look into the matter carefully and you'll agree that here's the fence that WILL last.

Glad to send you details of all the many "IDEAL" styles—there's one for every fence purpose. Drop a card for catalog 121



The McGregor Banwell Fence Co., Ltd.  
Walkerville, Ontario

### 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



### SYNOPSIS OF CANADIAN NORTHWEST 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 solely 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 alongside his homestead. Price, \$3.00 per acre. Duties—Must reside upon the homestead or pre-emption 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 enter for a purchased homestead in certain districts. Price, \$3.00 per acre. Duties—Must reside six months in each of three years, cultivate fifty acres and erect a house worth \$300.00.

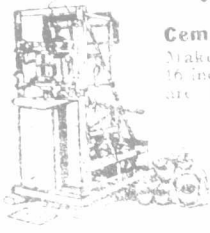
W. W. CORY,

Deputy of the Minister of the Interior.

N.B.—Unauthorized publication of this advertisement will not be paid for.

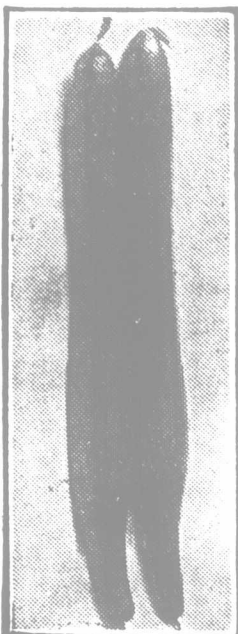
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**Cement Drain Tile Machine** Makes all sizes of tile from 3 to 16 inches. Cement Drain Tile are here to stay Large profits in the business. If interested send for catalogue London Concrete Machinery Co., Dept. 3 London Ont. Largest manufacturers of Concrete Machinery in Canada.



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In 5 cent packets, and Packages of higher value. Post Paid. Duty Paid.

FOR PEDIGREE STOCK either of annuals or seeds "The Old Country" (as the United Kingdom has always been known to her Daughter Dominions) is universally acknowledged as unrivalled. WHY NOT HAVE THE BEST TESTED PEDIGREE SEEDS?

It costs no more to grow from Pedigree Seeds, than it does from unproved and inferior Seeds. The results with the former are gratifying, and remunerative, whereas they are disappointing with the latter.

R. NEAL and SONS, England's HIGH QUALITY Seedsmen.

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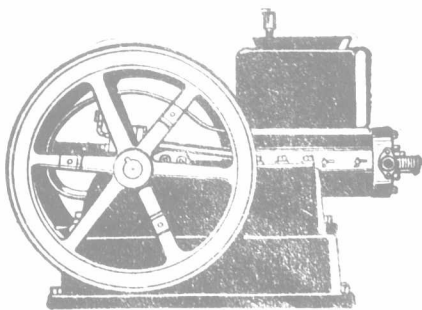
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THE SHERWIN-WILLIAMS Co. of Canada, Limited, Montreal, Toronto, Winnipeg, Vancouver



This \$15 Down Engine and balance in easy instalments

IT IS EASY TO BUY the wonderful Gilson Engine on the above terms. Dependable, cheap, and easy to operate of any engine with every engine. Ten days' trial, if not satisfactory, hold subject to return every cent of your investment. Can anything be better? The Gilson has 30 H.P. and is very strong, that it is not an engine. Ask your banker about its reliability—founded 1880. An engine to do and we will be glad to send you the price for free catalogue. E.g. mention in your letter: write for our proposal.

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Full Insurance Protection in addition.

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For unloading Hay and all kinds of Grain. For wood track, steel track, rod and cable track. Made entirely of malleable iron; no springs. Patented with our patent deadlock. 25,000 of our Haying Machines in use, is the best guarantee that we build them right. Write for catalogue of Carriers, Slings, Stackers and all kinds of dealer near you who handles Buchanan's. Buchanan & Co., Ingersoll, Ont.

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Buy your own seed corn. Your money back if not satisfied. RUTHVEN, ONTARIO



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**"My New Metal Has Made Me a Proud Man. It Permits a 100-Year Roof at Low Cost."**

"Sir, I tell you, I am a proud man. I have at last got the best roof ever made at a low price. My roof will last you for a whole century. You can put it on a wood framing. You can get it at about what you pay for wood roof. You can lay it. It will keep rain, lightning, fire, ice, snow and wind from harming your building. If you want a roof, I have the right roof."

**"I Think Every Man Can See How a Roof Is the Big Point in a Barn."**

"I worked 50 years to make a cleanly, strong, sure roof at a low cost. I had barns mostly in mind. When I started, bush fires were common. Cedar shingles went up like tinder from a single spark. Lightning burnt barns again and again. Leaky roofs rotted hay and produce by the ton—they let water rot the barn framework. Oshawa shingles stop this."

"Thus, I became one of the first metal shingle men in the world. I aimed to make a roof that would save twenty times its cost by saving a barn frame and foundation, as well as the stuff put into the barn, which represented thousands and thousands of dollars risked over a period of years under a poor roof."

**"It Took Years for Me to Get the Design of My Metal Shingle Right."**

"I thought it was easy. It was hard. It was a big contract. I didn't dream of what any roof has to stand. I thought about all a roof did was to let rain run off it, and keep in place the rest of the time. I found I had about twenty-five problems to answer at once in a single design."

"My roof had to have 'give' in it, so it would stretch in the hot sun and shrink in zero weather. It had to be ice proof, or lodged thaw-water would gouge seams apart. It had to be smooth, or lodged dirt would rust it. It had to cover its own nails, or the roof would leak. My roof had to be layable by anyone."

"My work was, I had to design a shingle that couldn't be laid face-down, or sideways, or upside down, or crooked, or be marred in the laying, or be smashed on the road between my factory and the place where the roof was. I found my shingle needed ventilating places in it that would let air out but wouldn't let water in. It had to be wind proof. Yes, sir,

these things were all worked out by me in 50 years.

"I started to make a spark-proof and lightning-proof roof. I ended by getting one of the best roof shingle designs ever made. My roof has more experience and skill and years behind its design than any roof you can get in metal."

**"I Had to Wait Fifty Years for My Last Big Point. This Was It."**

"My business was world-wide by this time. My shingles were selling in Australia, Japan, South Africa. Governments specified them for roofs."

"All this time I was getting my design right little by little. But, do what I could, I had been troubled by the metal in it. It seemed impossible to get a metal which might not rust. I had to take the best metal I could get. I needed a strong, light, absolutely non-rusting metal. At last, I found a hint in Europe."

I followed up this metal. At last I devised a non-rusting 100-year metal, which was non-corrosive. The moment I put this metal into my shingle design, I got at one step a 100-year roof. This is the roof you can get from me at a low price."

**"Why Do You Pay Me a Low Price? You Have My Big Sales to Help You."**

"My metal shingle is not trash. You can get trashy stuff at a cheaper price. (It will cost you thousands of dollars in produce.) Yet you can buy my shingle at a low price. Its quality is kept high and its price is kept low by big, steady sales all over the world. If you do not look into my 100-year shingle, you are not treating your building right. Get a 100-year Oshawa roof for your building. It will save your building, and save you thousands of dollars in produce you worked hard to grow; and harvest."

**"Get My Book about This 100-Year Roof. It Has Building Hints for You FREE."**

"I have helped you and all other builders with a roof I am proud of—a roof I know is right. I want to do more. I made my book 'ROOFING-RIGHT' to tell about my roof. But I made it worth while for those who do not take my roof."

"It shows the best buildings in the country—the best barn arrangements. I will send you this book for a post-card, whether you take my roof or not. I want you to take my roof, if it stands your closest examination. Send for my book to-day."



**The PEDLAR PEOPLE Limited, of Oshawa** Established 1861

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For full information regarding home stead regulations and special colonization rates to settlers, write:

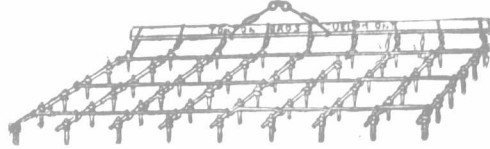
The Director of Colonization  
DEPARTMENT OF AGRICULTURE  
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## WHEN YOU BUY, BE SURE THAT IT IS A TOLTON HARROW ALL STEEL

High-grade Steel Harrows

Section and Flexible All-Steel Harrows with an unequalled record. Pre-eminently the most efficient, strongest and longest-wearing Harrows ever manufactured is our unprecedented guarantee. Send to-day for descriptive circular furnishing the facts. Address: Dept. F.

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MENTION THE FARMER'S ADVOCATE WHEN WRITING ADVERTISERS.

## Valuable Book on Barn Building FREE

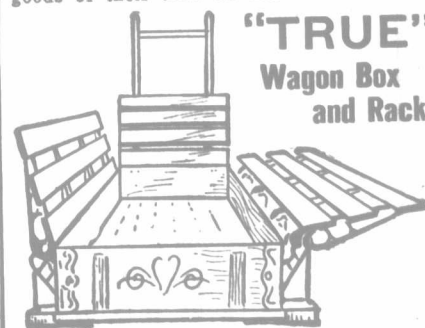


Write at once for this valuable book. It contains information that every farmer should have regarding the sanitary housing of dairy cows. It explains every fundamental of correct construction and gives proper dimensions and arrangements. It describes lighting, ventilation, stable floors, and their construction, and contains suggestions about silos, site, exposures, appearance, design, drainage and inside equipment. Besides, you will find in this book a number of practical barn plans and other information that may point the way to your saving many a dollar. We have designed many of the finest and most modern dairy barns in this country and this book is based on our long experience and expert knowledge in dairy barn construction. The book contains in concise, clear and condensed form, information necessary to any farmer who is planning to build or remodel. Understand, we send you this book absolutely free without any obligation on your part—just for answering these few questions: Do you intend to build or remodel? How soon? How many cows have you? Will you want a litter carrier? Will you want a hay fork outfit? Send to-day.

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## Up-to-Date Specialties For Farmers And Gardeners

Things you need—implements and tools that should be on every truck garden and farm. Our way of making these specialties assures adaptability, strength and service at the minimum price for the best goods of their kind on the market.



"TRUE" Wagon Box and Rack

Without wings and ladder, it is a perfect wagon box. With them, it is the best Hay, Stock, Wood, Poultry, Corn or Fruit Rack ever invented. Adjusted to any position in a minute without wrench, hook or rope.

**"Eureka" Sanitary Churn**  
Barrel of finest stoneware—top of clear pressed glass. Churns by hand lever. The only sanitary churn made. 8 sizes—8, 10 and 12 gallons.

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will slice or shred from 1 to 2 bushels per minute. Fastest machine made—easiest running. Tapering cylinder—10 best steel knives.

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Best iron anvil, with vice, pipe vice and drill attachment, and saw clamps. Just what you need for repairing tools and machinery. Weighs 60 pounds.

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Every farmer, who wants to make money out of his farm, ought to have our new catalogue. It shows our TOOLS, Rakes, Hoes and Machines as they are, and describes their construction in detail. Write for free copy.

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### THE SERVICE COAT THAT KEEPS OUT ALL THE RAIN

Even the front of this Slicker is WATERPROOF. See our patent REFLEX EDGES, out of sight when coat is buttoned, that guide every drop down and off. Another proof of

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It's no longer a "hit-or-miss" occupation, where "any old way" is good enough. Farmers are buying pianos and automobiles as never before. They're *living* as well as *working*.

The farmer has learned that it *pays* to employ progressive methods. That's why he is ever ready to receive helpful suggestions for improving his crops, his land and his home. It's also the reason that more than fifty thousand Canadian farmers are enthusiastic about our handsome book,

## "What the Farmer Can Do With Concrete"

It isn't a catalogue, nor an argument for you to buy something. It is clearly written, interesting, profusely illustrated. It describes the various uses to which concrete can be put on the farm. Not theories, but facts, based on the *actual experience* of farmers all over the continent. It is the most complete book on the subject ever published, fulfilling the pur-

pose behind it, which is to help the farmer take advantage of concrete's possibilities. The list of subjects covers every conceivable use for concrete on the farm. The book's actual value to you will far exceed the list price of fifty cents, but if you will send us your name and address at once, we'll be glad to

**Send it to You Absolutely Free**

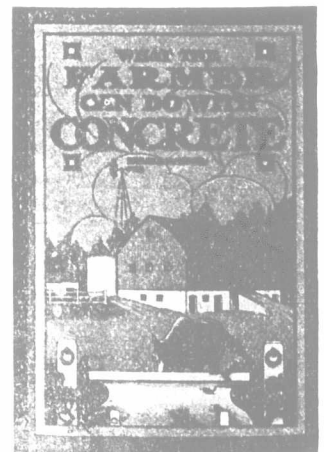
*Send a post card for it—do it to-day. The book will be sent by return mail.*

# Canada Cement Company

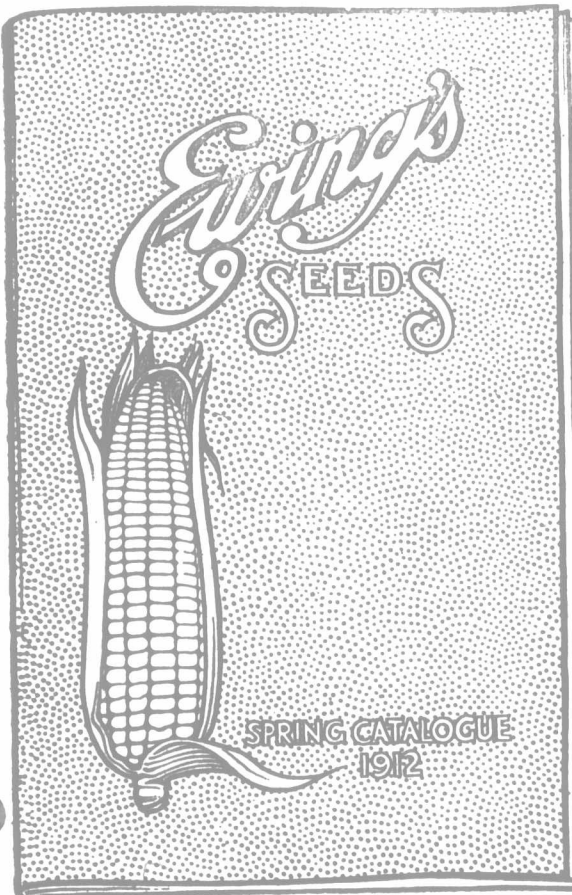
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National Bank Building

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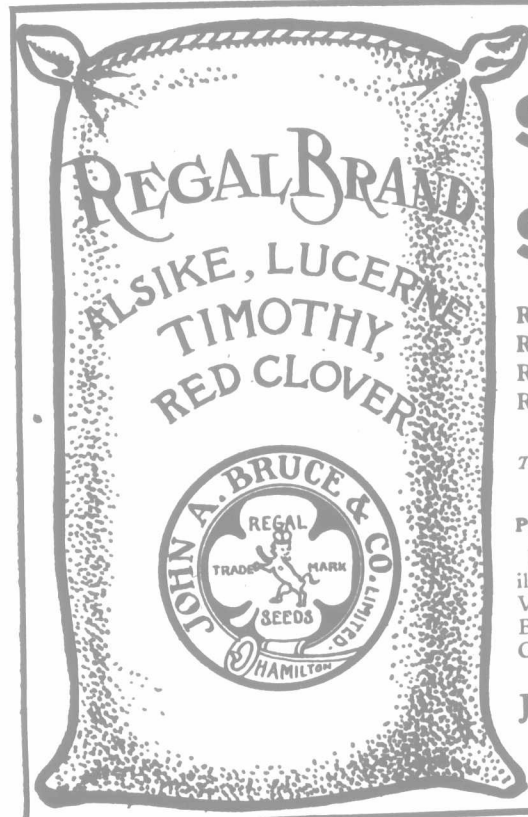




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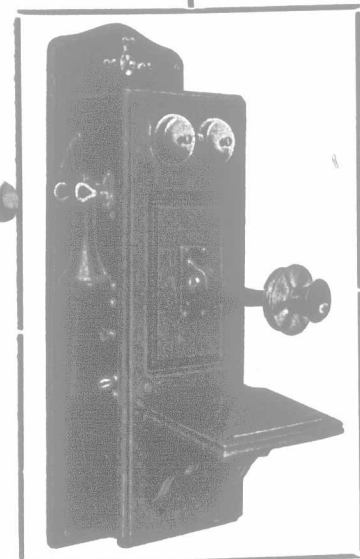
**SEEDS  
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Regal Red Clover, \$15.50 Bushel  
 Regal Alsike " \$15.00 "  
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This is our standard rural line instrument,  
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You will make no mistake in equipping  
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Remember, we will send two instruments  
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**POLES OF STERLING QUALITY**

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"NOW I have the best roof in  
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That's about what every Ama-  
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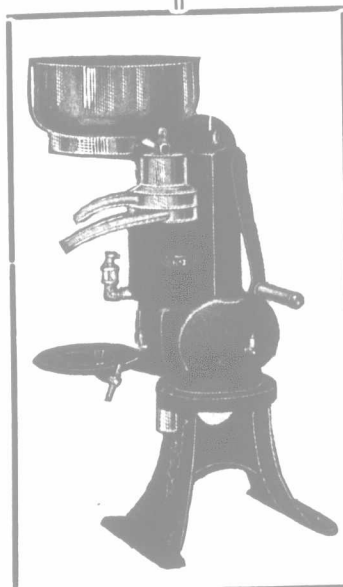
Amatite does away with all roof-  
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Don't buy any other roofing till  
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 Save money by using this black paint  
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Save Time and Energy by Purchasing the Improved



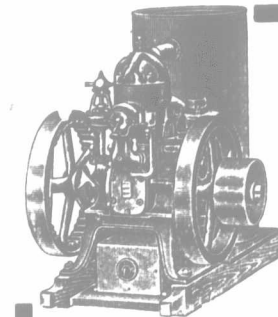
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Twentieth Century methods adopted  
 in construction, large capacity, light  
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 wide range of conditions.

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 far more power from coal oil than other engines do from gasoline.  
 They are safe, as well as cheap; no danger of explosion or fire.

The strongest and simplest farm engine made; only three  
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**FREE TRIAL FOR 30 DAYS.** You don't have to take our word for it. We'll send an  
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3 to 15 horse power  
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**DON'T DELAY**

OUR  
**BINDER TWINE**  
IS UNUSUALLY  
**LOW PRICED**

DON'T buy Farm Implements—don't buy Binder Twine—until you have seen the prices which we are quoting. Remember, we guarantee absolute satisfaction or refund your money in full, plus the transportation charges both ways.

**YOU RUN NO RISK**

THE **T. EATON CO** LIMITED  
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**BELL ART PIANOS**  
CANADA'S BEST.

Known throughout the world. Used and recommended by master musicians.

The only piano containing the illimitable Quick-Repeating Action and the Bell Tone-Sustaining Frame.

The Bell Piano possesses several other valuable features, as described in our (free) catalogue No. 40. Send for it.

**THE BELL PIANO & ORGAN CO.**  
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# DE LAVAL CREAM SEPARATOR

Does it not mean a great deal to YOU, the prospective buyer of a Cream Separator, that such men as

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# The Farmer's Advocate and Home Magazine

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No. 1019

## EDITORIAL.

Winter lingered in the lap of spring, and a chilly courtship they made of it, too.

Many a Wellington, surveying his shallow hay mows and empty grain bins from day to day, prays earnestly for spring or lower feed prices.

Small oats, if plump, will make as good feed as large ones, but they are not so good for seed. The moral is plain enough. Screen carefully.

Good seed counts for more, perhaps, with corn than with any other crop, and the quantity per acre being so small, the difference in cost between the best and the ordinary is, comparatively speaking, a mere bagatelle.

Have the clover and grass seed mixed and the grain cleaned ready to slap into the ground. One day's delay in commencing the sowing of twenty acres of spring grain may easily make twenty bushels difference in the threshing returns.

By all accounts, good seed corn is likely to be none too plentiful in certain broad sections of the American corn belt this spring. Buy early, buy on the ear, and test every ear for germination before planting. Do this always as a matter of course.

For prolonged duration, with extremity of wind and cold, the winter of 1911-12 takes easy honors over any season within the memory of most of us. And now, please let no wise official come forward armed with records to mar our grim satisfaction by telling of a worse one.

One of the advantages in consolidation of public schools is punctuality in attendance. Pupils quickly learn that they must be ready for the wagon when it calls at their homes, and the accidents are rare which prevent the wagon from reaching the schoolhouse "on time." Some Minnesota schools report not a single case of tardiness during a term.

Grain being so dear, it will be a good season to try moderately light seeding of grain on fields where clover is to be sown. A little less oats and a little extra clover seed improve the chances of a "catch" on many farms; and, if so, would be amply justified, even if the grain yield were a little less. Try six or seven pecks of oats and twelve pounds of clover and timothy, chiefly clover, and compare results.

In selecting a crop for standing field competition, a very large number of societies choose the one most extensively grown in their locality, namely, oats. While there are sound reasons for this choice, it is worth considering whether, in some cases, more good might not be accomplished by promoting the cultivation of some crop like corn or alfalfa, which is a successful culture, makes larger demands on the farmer's intelligence and enterprise than do the common crops.

## A Profitable Postal Service.

"The Farmer's Advocate" is in receipt of an official copy of the last annual report of the United States Postmaster-General, Hon. Frank H. Hitchcock, which shows conclusively that reasons other than the establishment and extension of free rural-mail delivery must have been responsible for the large deficits which formerly burdened the service. That was an excuse long urged against the adoption of rural delivery in Canada, where a businesslike administration of the postal service years ago made it self-sustaining. At the beginning of the present administration at Washington, in 1909, however, the postal service was in arrears to the extent of \$17,479,770, the largest on record, but two years has changed that into a surplus of \$219,118, and this done without curtailing public facilities. On the contrary, thousands of new offices have been opened, the staff increased by over 8,000, the salaries of employes largely increased, the pay for rural carriers increased from \$979 per year to \$1,082, and 2,516 new rural routes established, aggregating 60,679 miles. The successful operation of the new postal savings system has been fully demonstrated, the deposits, after eleven months of operation, having reached a total of \$11,000,000, distributed in National and State banks, and protected by bonds deposited with the Treasurer of the United States. While money-making is not an ideal object for a public utility such as the post office, which exists to serve all equitably and well, it is gratifying to find that its business can be conducted without loss.

There are two classes of rural-mail service in the States, officially designated as "rural delivery" and "star route." Any person living on or near a road covered by either may, by erecting a box along the line of travel, have delivery and collection of mail matter. The boxes are provided by patrons at their own expense. "Star route" service includes only delivery and collection of ordinary mail matter, and delivery of registered matter when expressly requested by an addressee. Rural delivery involves the delivery and collection of all classes of mail matter, including registered and special delivery, the sale of stamp supplies, and the transaction of money-order business through the carrier. In the United States the rural carriers now deliver mail on 42,000 routes that reach about 20,000,000 people.

Since the publication of the preceding year's report, a most beneficial consolidation has been effected of the "rural delivery" and "star route" services. It has enabled the department to extend mail delivery to many thousands of additional patrons by a re-arrangement of established routes, with little increase in the annual rate of expenditure. Much needless duplication of service which it was difficult to prevent with two independent systems of rural delivery, has been eliminated, and under the new plan the service is being rapidly extended.

Chief among the recommendations of the Postal Department to Congress is one for the authorization of a trial parcel post on rural routes, and also for the introduction of such a service in cities and towns having delivery by carrier. The parcel post system seems destined to come in time, despite the mistaken opposition of local stores who have an abnormal fear of the big departmental houses, and the more sinister opposition of the monopolistic express companies. What the Department asks is a moderate appropriation to give the proposed system a fair trial, at rates

to be prescribed by the Postmaster-General, on packages not exceeding 11 pounds in weight, containing no first-class matter.

## How and When to Seed.

Each season of the year brings its problems, and spring furnishes a full share. After a long, tedious spell of cold, rough weather, with chores to do and wood to cut, the thrifty farmer looks forward with no small amount of eagerness to the spring days, with their balmy south winds, gentle warning showers and nature's rapidly changing conditions from rest into vigor and activity. There is satisfaction to be had from getting on the land, especially so if done at the best season and when the soil is in the best working condition for the production of a suitable seed-bed.

The first consideration, of course, is the seed. This should be all cleaned and ready. Time means money in the spring. As far as crops are concerned, there are few more valuable farm assets than a good fanning mill, well used. Extra fanning and screening means a larger yield of cleaner, purer, plumper seed, and that is what all growers should aim to produce. No man can afford to shovel the grain just as it comes from the threshing machine into bags and cart them to the field, to be used as seed for the next crop. Thorough cleaning is essential. In experiments conducted at Guelph, for from five to eight years, with each of eleven different classes of farm crops, the average results showed that the large seed surpassed the small seed by 19.1 per cent. for the grain crops, 40.3 per cent. for rape, and 60.1 per cent. for the root crops. Well-matured, sound seed invariably gives best results. Just before sowing, all grains liable to smut should be treated with the formaldehyde treatment so often given in these columns.

With the seed and implements ready, the farmer is prepared to begin on the shortest notice. There is a time for everything, and nothing pays better for timely work than seeding. Many get over-anxious and commence a little too soon, but more there are who do not get on soon enough. Land should never be worked in a sticky, soggy condition. Such soil makes it difficult to cover the seed, and later in the season the land dries out, bakes, and is a great detriment to the crop from a moisture and aeration standpoint. Just as soon as the land will pulverize well, get to work, and the earlier the seed is sown, the better. Our growing seasons are none too long, and the earlier the seed is in the ground, the greater the chance of a large yield.

Methods of cultivation are very diversified. As long as the right result of tilth is produced, it matters little how it is accomplished. Deep spring plowing is not conducive to moisture-holding, and one of the problems which should be foremost in the mind of the tiller is to get the soil in a condition to retain the moisture already in it and as much as possible of the spring precipitation for the use of the crop. It is a well-known fact that grain crops require over twice as much moisture to mature them as usually falls during the growing season; therefore, this important requisite to plant growth must be carefully protected against the hot, drying winds of spring and summer. No better cultivating implements have yet been devised than spring-tooth cultivators and disk harrows. Put pressure on these and they will pulverize the soil to sufficient depth to make a good seed-bed. Another implement



## THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL  
IN THE DOMINION.

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which, though simple, is one of the most useful in seeding, is the ordinary drag-harrow. Too many strokes with this implement cannot be given.

Opinions differ as to whether seed should be sown broadcast or drilled. Experiments have shown that the latter method gives slightly better returns than where the seed is broadcast. Especially is this so with comparatively late seedings. The grain drill is a valuable asset to the farm, and, where grass seed is sown with the grain—and we believe that this should be done in most cases—it is a necessity, as much better catches of grass seed result from sowing the seed directly in front of the tube drill from a grass-seed box on the drill. Even stands of clover result from this than from other methods.

Rolling is another practice which has caused much controversy. Some farmers would not have rolling done if they could get it done for nothing; others would not, under any consideration, omit it. The roller must be judiciously used. On heavy soils, inclined to be a little wet and sticky, the roller should not be used, as there is some danger of so excluding the air as to interfere with germination. On lumpy soils it is an advantage, and aids germination by pulverizing and compacting the soil, and at the same time increasing the soil temperature. A rolled surface should never be left smooth, as much more soil moisture is lost than from a finely pulverized surface. Many soils, such as newly plowed soil and land recently fertilized with barnyard manure, are the better of rolling, but in all cases, rolling with a light harrow should follow. A fine mulch on the surface, by means of a roller, should precede the rolling. Where the soil is rolling is often essential to insure germination, which is especially true on rough soil.

There are occasions, after a heavy rain, when which run the land together, and a light harrow, even after the rain has

beneficial. Judgment must be used in this, however. If a crust is formed, evaporation is rapid, unless checked, and the principal method to stop it is to harrow, although sometimes a slight mulch will be formed by rolling a rough, dry surface. This harrowing is only necessary under special conditions, but good results have been obtained from it.

Have everything in readiness to do the seeding at the proper time and in the best manner, and if the land is in a good state of fertility, the crop need not cause much worry in an ordinary season.

### Cereals as Nurse Crops for Clover.

Most clover seeding is done with a cereal of some kind, and the result of the clover catch depends largely upon the cereal used. Many farmers are now sowing clover with all their cereals, and, from the standpoint of soil fertility, this is good practice. Many others still seed only that portion of their land which they wish to use as hay or pasture crop the following year.

Of the cereals used for this purpose, wheat and barley are the most popular. They grow quickly, and are soon off the land, leaving the clover in absolute possession. Barley does not tiller as much as oats, and does not, as a rule, shade the clover so closely as to smother it. A bushel is a good seeding of barley where alfalfa is seeded, and one and a half bushels is enough where red clover is used, better results often being obtained from a bushel and a peck.

Wheat, either spring or fall, makes a very suitable nurse crop. The clover seed, sown broadcast on the snow, or harrowed in later, generally catches well on winter wheat. With spring wheat, sowing ahead of the drill is the method, the wheat to be sown a little less than the usual seeding, however, as there is less danger of spring wheat lodging than in the case of most other grains, more nearly a full seeding can be sown.

Oats, as a nurse crop, are only fair. It is a common practice to sow oats on the poorest land on the farm, which is not conducive to best results from clover seeding. Sown on good soil, care must be taken that they be sown thinly enough to insure that the clover is not smothered owing to lodging or the crop growing too stout. One and a half bushels per acre would be a sufficiently heavy seeding for such soil.

Rye, because of its habit of growth, is a good nurse crop, but is not very extensively grown.

Buckwheat has been used to a limited extent for this purpose, with good results, but it is extremely important that the soil be in good condition and the buckwheat sowed very thin, about one-half bushel per acre being enough.

With the common cereals as a nurse crop, it is important that the seed be sown as early as possible to give the tender clover plants a chance to get a good root, and become vigorous before the dry, hot weather of summer sets in.

### The Cheerful Giver.

By Peter McArthur.

It has often been said that farmers are close-fisted. All wrong. When dealing with one another some of them may be as close as the paper on the wall, but when acting through their representatives in Parliament, they are generous to the point of prodigality. All you have to do is to consider the case of the chartered banks, and you will be amazed at your own liberality. Here is a small group of men to whom you have granted through Parliament a lot of privileges that would make Charles II. or Louis XIV. think that they were stingy skindivvits, though they did prefer to do in the way of granting monopolies, and in any way you like, the chartered banks have a monopoly such as the world has never known before.

These banks are allowed to issue currency for the country, without any way for the privilege of the government to pay for the privilege. They are allowed to issue currency for the mere cost of printing the notes. If the bank fails, these notes are still good, and the daily necessities of the people are not affected.

depositor's money. Of course, they are supposed to be guaranteed by the shareholder's money, the paid-up capital stock, but when a bank fails, it is usually found that the capital is already swallowed in some mistaken or unhalloved operation, and that the depositor's money must be used to redeem the outstanding notes. But the depositors are lending their money to the banks on those terms, and I suppose we have no reason to complain, because it insures us a stable currency that is always worth its face value, whether a bank fails or not. Still, we may be permitted to wonder mildly at the generosity of the depositors.

\* \* \*

But it is our own generosity I started to tell about. If we issue a promise to pay, or note, we have to pay a stiff rate of interest on it while it is outstanding; but not so the banks. They discount our notes with their own, and in that way make us pay for the use of their notes. In other countries, the issue of currency by the banks is taxed by the State, and in all of the important countries the profits of the banks usually do not exceed about six per cent., as in Germany. Cases can be cited where all profits over that amount, and a considerable amount before 6 per cent. is reached, are paid over to the State. But here we do nothing of the sort. The currency is untaxed, and a bank can make all the profit it likes, so long as a decent reserve is kept. In other countries there is a supervision of banking affairs that must be galling to high-minded financiers, but in Canada we do not offend in that way. Such things as the Government feels it should know about banking affairs are learned simply by asking questions and taking the word of the officials that their answers are correct. After practically every disaster, it was found that the officials had issued false statements; but still we are going on in the same generous way. Almost any other country would be sufficiently suspicious to send its own inspectors to find out what it wants to know, but we do not insult our bankers by such high-handed proceedings. We keep right on taking their word for the condition of their banks, even though twenty-five per cent. of them have failed in twenty-six years. You might be inclined to ask if human generosity could go further, but it can, and does.

\* \* \*

In addition to being permitted to issue an untaxed currency, the banks are allowed to have branches in all parts of the country to borrow money from everyone who has a little to spare. People call their transaction "making a deposit," but, in reality, they are lending their money at three per cent., without security, and with some danger, as described in a previous article. So that the banks may get all the money that is to be borrowed in this way, we have put a clause in the Bank Act which makes it illegal for any but a chartered bank to use the name "Bank." The result of this is that the twenty-seven chartered banks that now remain have been able to borrow the amazing sum of \$912,784, 136, or over eight times the amount of their paid-up capital. Of the money deposited at the ordinary small branch, at least 75 per cent. goes at once to the head offices in Montreal or Toronto, to be used as seems wise to the men who control the banks. If a merger is to be put through, they have the money on hand to do it with. I know they are accused of placing a large amount of it at the disposal of Wall Street operators, but that does not interest me particularly. I have been hearing about Wall Street so long that it has lost its terrors for me. It is the use that is made of it at home in Canada that does the real harm. What is sent over to build railways in the United States at least does us no harm, though there are many legitimate ways in which it could be used in Canada. It might be used to develop local industries in the places where the branch banks are located. That is the way it should have been used, if there had been local banks, instead of branches of the big banks. But now that mergers and combines have been effected in all important lines of business, there are few local enterprises to be fostered. And now that Big Business has become entrenched, it would be hopeless to try to go back to the old system. A small local enterprise would have no chance against the big concerns. It looks to me as if the branch banks had already accomplished their purpose. They have gathered the capital and business of the country to the big centers. The Big Businesses are not only the offspring of the banks, but depend on them for the accommodation they require, and are consequently under the control of the banks. By our generosity, we have given the men who control the banks the control of all the important business concerns of the country. You will find, on investigation, that the same men appear or are represented on the boards of the banks and of the big industrial concerns. They also appear or are repre-



sented on the directorates of the big dailies and financial papers that are educating the public to believe that the Canadian banking system is the best in the world. You may ask how the people of Canada ever came to grant such privileges to any class of men as they have to the bankers. The only reason I can suggest is that they gave them because the bankers asked for them. They certainly did not need to give them in order to insure a sound banking system. Moreover, we shall not have a sound banking system until the banks are inspected by outside auditors who will check the operations that have caused so many disasters in the past. Whether anything can be done to stop the branch-bank system from bleeding dry the country and smaller towns and cities, is a question to which no answer suggests itself. They had to grapple with a similar problem in the United States at one time, and were not able to straighten it out until they got Andrew Jackson, who was branded as a demagogue, to take it in hand.

But the generosity of the people of Canada did not stop even here. In order to round out their gifts and give heaped-up measure, running over, they gave the Bankers' Association the power to wind up the affairs of any bank that suspends payment. This makes it possible to keep from the public an understanding of the mystery of banking, and also of the mystery of its failures. It enables them to see that a rival concern is good and dead, and to wind up its affairs without any unnecessary and illuminating scandal. It amounts to the same thing as permitting the affairs of a manufacturing concern that has failed to be taken over and wound up by its business rivals. I am surprised that the Manufacturers' Association has not asked for this privilege, instead of letting an embarrassed concern be handled by a receiver appointed by the courts, who might possibly put the concern on its feet again.

And now, what are the banks doing in return for all this kindness? They are conducting the banking business of the country as if it were a private enterprise, making all the profit they can, and enabling men who are connected with them to make "millions on the side." If they see a chance to use the accumulated savings of the people in ways that will be more profitable to them than moving the crops or otherwise facilitating the business of the country, they have the fullest liberty to use it in such ways. It is true they give us a stable currency, but only at the expense of the depositors. At least, it proves to be that way on a last analysis. By their branch banks, they are able to move the money of the country quickly from one place to another, and they move it—but chiefly to their head offices. During the past few years they have changed from banking concerns, having at heart the interests of every business man in the country, to huge borrowing concerns that are chiefly interested in big deals and big profits. Such is the force of their accumulated wealth—borrowings—that when they move, they move irresistibly, and it does not matter to them who is crushed by their operations. They are now so strong that it is a question if any Government can stand up against them—that is, as Governments are now constituted. But if the people made it evident to their representatives in Parliament, regardless of party, that they want the banking situation looked into, and all possible evils remedied, a way would soon be found to set matters right. A government that owes its power to the people alone can accomplish anything that is humanly possible. Let the government feel that you are behind it in earnest, and that it does not owe its position to the cleverness of its leaders, and you will be surprised at what you can accomplish.

For fear that some people may think that banks cannot be run, except by giving them such privileges as our banks enjoy, let us consider the case of the Imperial Bank of Germany. Its shareholders are allowed the first 3 per cent. of the profits on the paid-up capital. From all profits over that amount, 20 per cent is set aside as a reserve, which is not allowed to be more than 25 per cent. of the paid-up capital. Of the remaining profits, one-fourth goes to the shareholder and three-fourths to the State, and in any case the shareholders are not allowed to receive more than 6 per cent. The Imperial Bank of Germany does not charge nearly so high a rate of discount as is charged in Canada. Besides, this bank pays a heavy tax on its currency, which is amply secured by a reserve and other securities. Yet, that bank pays to the Government a yearly profit of over \$8,000,000. If the Government of Canada took as much interest in the question of banking as does the German Government, we would have a safer system, and there would be fewer men making millions "On the Side." Next week I propose to make a hurried and scared excursion into that mysterious country "On the Side." It is not a safe place to investigate, and I shall be glad if we get out without being clubbed.

Our Scottish Letter.

The past four weeks have been unusually crowded, and it will be a very short summary of the many important events that can be compressed into this letter. Perhaps I should have put in the foreground the great loss sustained by Scottish agriculture in the death of the Rev. John Gillespie, L.L.D., the secretary of the Galloway Herdbook, chairman of the Board of Governors of the West of Scotland Agricultural College, and one of the best-known members of the Board of the Highland and Agricultural Society. Dr. Gillespie was well known to many in Canada and the United States. He twice visited and travelled extensively through both, and was personally well acquainted with the leading men in the agricultural departments of both countries. In Scotland he was one of the most popular of public men, and in everything that pertained to the well-being of agriculture he took a prominent part. He was about 76 years of age, and was active in every form of duty up to the summer of 1910, when he broke down, and his last public appearance was at the show of the Highland and Agricultural Society at Dumfries in July of that year. As an arbiter in connection with agricultural affairs, Dr. Gillespie excelled. He had the qualities of head and heart which make for success in that line of things, and his efforts to settle disputes amicably and with a minimum of expense, were, as a rule, crowned with success. There was only one Dr. Gillespie, and there will never be another.

INSURANCE OF AGRICULTURAL LABORERS.

The National Insurance Act is causing a great commotion in agricultural circles here. Various parties in the agricultural community have in the past got on very well together, and the progress of agriculture has seldom been interrupted by anything in the nature of labor disputes. A kindly feeling has, as a rule, characterized the relationships between master and servant; and in many parts of Scotland a custom, which had almost the sanction of law, prevailed, that when a servant fell sick, he or she received six weeks' unbroken wages and medical attendance should their illness unfortunately last so long. When the National Insurance scheme was floated no provision was made to meet this custom, and there seemed every prospect of its being supplanted by a hard-and-fast scheme of compulsory insurance to which the employed male contributed a premium of 4d. per week, and the employed female 3d. per week; while the employer, in either case, contributed 3d. and the State added 2d. In other words, the premium for males was rated at 9d. per week, and the premium for females at 8d. per week. When the circumstances of the agricultural world were brought under his notice, the Chancellor of the Exchequer introduced an option into his measure. The purport of this was that the employer and employed were offered a reduction in the rate of weekly premium, provided the employer would continue to carry the obligation to pay the six

weeks' wages in the event of illness. Many complications are involved in this. Throughout a great part of the United Kingdom rural employees are engaged on a system of part remuneration in cash, and part in perquisites, such as a free house, so many hundredweights of potatoes, so much milk per day, and so much oatmeal, during the period of engagement, which in such cases is usually for twelve months. The question agitating the agricultural world is whether it is better to continue this good old custom or to accept the hard-and-fast main scheme of the Act. The inclination of farmers is to adopt the former course, but their pecuniary interest rather points to the propriety of accepting the latter. In the former case they are under the necessity of paying a premium and continuing to carry the risk; in the latter, they pay the premium, and the risk is carried by the Insurance fund. It is a puzzling situation, and complicated by the fact that so many employees on farms are only engaged for short spells. According to an interpretation of the Act, the farmer who elects to adopt the alternative scheme and adheres to the old custom, will be under the necessity of keeping a casual worker for six weeks should he or she become ill while in his employment; while another interpretation is that the farmer may differentiate between his employees, and put some of them under the one scheme and some of them under the other. The bill was rushed through Parliament, and it becomes increasingly evident that the Act bristles with complications and difficulties. The latest political rumor is that, on account of these things, and the difficulties connected with their resolution, the Act may not come into force at 1st of July, 1912, as was intended, but six months may elapse before its business can be put into operation. Well, we shall see. Meantime, there is a good deal of acrimonious discussion, and some bad-feeling is being engendered.

A SCOTTISH BOARD OF AGRICULTURE.

Scotland has now got a Board of Agriculture all to itself, and much of the work done by the Board of Agriculture and Fisheries in London will now be duplicated in Edinburgh. The new Board is part of a scheme for keeping people on the land and, if possible, bringing back to the land some of those who have been allured to the cities and beyond the seas. The motive is admirable, and there is a general disposition to give the new Board a fair field for the development of its energies. Sir Robert P. Wright, who won golden opinions as the Principal of the West of Scotland Agricultural College, is the President of the Board, and has, as his colleague, R. B. Greig, B. Sc., who, up till recently, was lecturer on Agriculture in Aberdeen College. Both of these gentlemen visited Canada a few years ago as members of what was known as the Scottish Agricultural Commission, and Mr. Greig, also, in the same connection, made an extended tour in Australia. Their colleague is J. D. Sutherland, Oban, a well-known solicitor, and the trio consti-



Time is Money.

Farmer: There's what that silo cost me.  
Contractor: How about this time you have left out of the account? If I were to figure that way on contracts, I'd lose every clip.



tute a strong Board. Their subordinate officials include several gentlemen who were also members of these commissions, notably, William Barber, of Terenan, who is rapidly taking high rank as an arbiter in agricultural questions; A. M. Prain, who is understood to be an expert in poultry matters; and James Dunlop, Hallhouse, Fenwick, who is an excellent judge of Ayrshire cattle and Border Leicester sheep, and a resolute pioneer of the Milk Record movement among Ayrshire cattle-breeders, and the development of the commercial value of Ayrshires. We are also getting a Scottish Land Court, and, although meanwhile its duties are restricted to holdings 50 acres in extent and under, the principle of a Land Court has been embodied in legislation of Great Britain, and there will doubtless be developments along that line. Canadian readers will observe from these things that, agriculturally, the Old Country is on the move. Invitations have also been issued to Candidates for the vacant office of Secretary of the Highland and Agricultural Society. James Macdonald, who has filled that office with great distinction for twenty years, has been compelled, on account of ill-health, to resign. Where his successor may be found is at present a moot point. Among candidates whose names have reached the public, there is none of such outstanding merit as to make the appointment a certainty.

#### GOOD PRICES FOR BULLS.

Turning to other matters, we have had a remarkably successful series of spring bull sales. There has been an improved demand for the two leading breeds, the Shorthorn and the Aberdeen-Angus, and notably high individual prices and improved averages have been recorded. J. D. McGregor, Brandon, Man., did a good deal to make the Aberdeen-Angus trade lively. He operated at Perth to useful purpose. The highest price for females was £231, and the highest prices for bulls were £278 5s., £241 10s., £220 10s., and £199 10s. The highest herd average stood at the credit of Ballindalloch, which had £130 0s. 6d. for six bulls; Doonholm, which had £119 14s. for three, and Harviestoun, which had £112 10s. 6d. for six; 499 yearling bulls made the splendid average of £31 16s. 4d., or a rise on last year's figure of about £3 per head. These figures were, however, eclipsed by those recorded for Shorthorns in the following week. Lord Lovat got £924 for Broadhocks Cardinal, and the Earl of Moray got £819 for Doune Regent. Both of these were bought for the Argentine. The first-prize bull, Maurice of Cluny, was also bought for the Argentine, his price being £577 10s., and another from the same herd, Max of Cluny, went to William Duthie, of Collynie, at £483. The average price of the Cluny cattle first-prize group of three was £369 12s. The best averages at the sale were these: Doune Lodge, for three, £290 17s.; Beaufort Castle, for four, £252 15s. 9d.; Cluny Castle, for seven, £175 7s.; Polmaise, for two, £144 7s. 6d.; Jackstoun, for three, £141 1s.; and Dungleass, for six, £125 13s. Altogether, 387 Shorthorn bulls made an average of £45 13s. 1d., an advance on the figure for 1911 of £6 3s.

Our other two breeds do not come within measurable distance of these figures. The best price made by a Galloway bull was 75 gs., or £78 15s., and the best price made by a Highland bull was £67, the average for seventy head of these being £23 5s. 1d. The difference between the early-maturing breeds and those which are harder to ripen for the butcher is thus very marked. Good bulls are making plenty of money this year, the main reason being, perhaps, the fact that beef is selling well, and there is a general feeling that we are in for a range of higher prices than were experienced during the thirty years preceding 1910.

#### HORSE MATTERS.

Horse business is very healthy. The Clydesdale export trade continues to be very lively, and a trio of splendid mares were shipped last week to the Colony Farm, Coquitlam, B. C. These are unquestionably the best Clydesdale mares ever shipped to Canada. All three have been champion mares at the best shows in Scotland. The trio are Nerissa 30910, a Cawdor Cup winner, Blossom of Newhouse 19161, and her own sister, Peggy Pride 21611, the Royal Champion mare of 1911. All three are by Baron's Flash 9122, and it is the earnest desire of everyone here that they may have a safe journey to their new nation and do a world of good to the horse industry of Columbia.

The London Horse Show is a success story. The Shire Horse Show, which was held in conjunction with the exhibition, was a success story. Some of the exhibitors were enabled to obtain a better price for their horses than has come their way in previous years. The mares in their annual re-sale, which was held on the 15th, were sold for a total of £50,000. The export trade in Clydesdales was 521, as compared with 487 in 1910. The champion stallion this year was Devonshire's Warton Draught, a great, weighty horse, but much

the legs for the Canadian export trade. Indeed, the impression made upon us this year by the Shire Horse Show, which we had not visited for several years, was that the tendency to travel in the Clydesdale direction of cleaner limbs and harder, flintier bone has been checked, and that there is a distinct tendency to revert to the older type of hairy-legged, soft-boned horses. Dunsmore Chessie, the champion mare, is a typical chestnut Shire. She has many good points, and well deserved her victory.

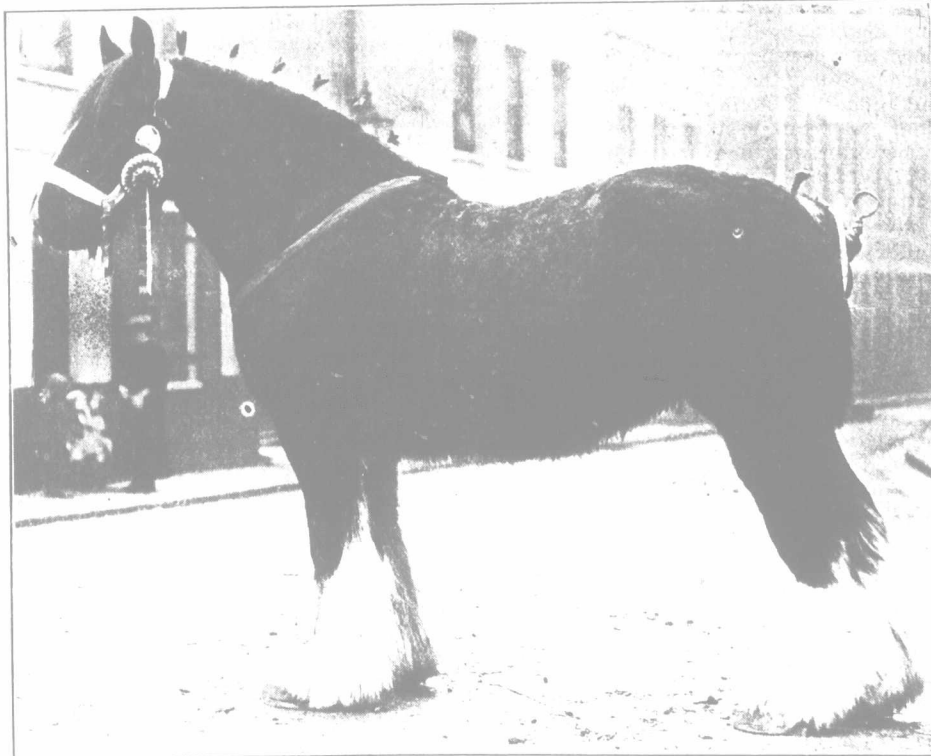
The Hackney Show brought out nothing new. The championship in all classes and sections went to the same animals as in 1911. The Mathias horse, King's Proctor, was champion stallion; Beckingham Lady Grace was champion mare, and the same ponies were champions as in 1911. In the produce groups, the champion sire alike for horses in harness and horses in the breeding classes was Polonius. He scored very heavily. He and Mathias, as is generally known, are sons of the celebrated London champion mare Ophelia, certainly the most wonderful mare for combined merit and breeding success which the Hackney breed has ever produced. The champion pony sire was easily Fireboy, which, for the third year in succession, won the first prize as the sire of the best group of three ponies. He is now owned by Mr. S. Miller, Gallowhill, Paisley; and as Mathias also finds his home in Scotland, we have a big share of the credit for breeding the best Hackney horses and ponies.

"SCOTLAND YET."

## HORSES.

A report in Rider and Driver, from the New York Sun, cites a case where, with equal distances to travel, a fire engine drawn by three horses, in New York City, beat a new automobile engine to a fire by a block and a half, while the automobile tender was still a block behind. Both companies knew they had a race, and the winning of the horses is significant. The horse is generally considered the most reliable, and, with such speed demonstrations, should have little trouble in retaining a place on the fire brigades of the large cities.

The horse at work requires a diet richer in protein than the animal on a maintenance ration, and thus a narrower nutritive ratio in the ration



Dunsmore Chessie (60183).

She is a chestnut, foaled 1908. First and champion female at London, England, Shire Show, 1912. Sire Dunsmore Raider.

is necessary, which is accomplished by adding roughage and lessening the roughage in the daily feed. The working horse must also get more non-nitrogenous material than when he was at rest, in order to prevent the using of too much of the body fat to provide the necessary energy, which, if continued, cannot but emaciate the animal. Work means an increase in feed given in proportion to the amount of labor performed, so should the ration be increased. It is not to commence the increase is not the same every week, but some weeks before, so as to accustom the horse to the change.

It is possible to avoid a certain amount of loss of energy by the digestive organs, if the food is concentrated, the roughage is reduced,

the work required of the digestive tract to prepare the food for assimilation. Here is a good reason for increasing the grain ration to the horses during heavy spring work. All their energy is required for work outside the body, and as little as possible should be used in the work of digestion. Eliminate, as far as possible, the indigestible, coarse, fibrous materials from the ration. The smaller the quantity of this material in the feed, the less the work of digestion. This must be considered at this season. We cannot, however, be governed in our feeding by this fact exclusively, because, as a general rule, a stated amount of digestible matter can be obtained, at less expense, from the coarser fodders, like hay; but, during strenuous work, when the horse has scarcely time to properly masticate and digest his feed before being rushed back to the field, increasing the grain ration and decreasing the roughage fed, seems to be the logical proceeding.

#### Aid to Thoroughbred Stallions.

The Federal Government, through the Livestock Commissioner and Veterinary Director-General, announces that the policy initiated in 1911 by the Department of Agriculture, with reference to the granting of aid, under certain conditions, to the owners of Thoroughbred stallions, is generally meeting with approval, and is accomplishing, in part, at least, the objects sought when the policy was undertaken. Amongst other things, owing to the rigid conditions imposed, it is encouraging those maintaining really high-class horses, and is serving to organize the system of breeding followed in different communities where Thoroughbred stallions are located. The stimulus given, in this manner, to the use of Thoroughbred blood will, it is believed, lead to an improvement in the light-horse stock of the country. Thoroughbred stallions, if really good individuals, may be expected to exert such an influence in the development of Canadian horses for saddle and harness use, as is greatly needed and greatly to be desired. The premium placed upon quality, soundness and prepotency, through the grants awarded by the Department, is serving to check the use of unsuitable sires, and is tending to conserve a type of Thoroughbred, the utility of which is beyond question.

While, as perhaps should be stated, it is not the intention of the Department to encourage the breeding of Thoroughbred horses or to develop a

type in light horses approximating closely to that of the Thoroughbred, there is no question but that a strong infusion of Thoroughbred blood in the light-legged mares of the country will be of inestimable value in improving the quality of the stock got from them by stallions of the various light-harness breeds.

Believing himself to be justified, therefore, in further prosecuting the policy begun last year, the Hon. Martin Burrell, Minister of Agriculture, has authorized the continuance of the grant, to be available for all Thoroughbred stallions standing for public service during the season of 1912 which comply with the conditions imposed by the Department. The conditions under which assistance will be given are as follows:

1. All horses on account of which aid is given by the Department must be registered in the Thoroughbred Studbook of the Canadian National Livestock Records.
2. Horses shall be of good size, quality and conformation, and shall be free from all hereditary unsoundness; these conditions to be insured by submission annually to a thorough, careful examination either at the Farms of the Veterinary Director-General or such other members of the Veterinary Staff of the Department, or other persons as the Minister may from time to time appoint for this purpose.
3. Horses so approved shall be duly and publicly advertised to stand for service of mares,



under the ordinary and general conditions usual in the districts in which they are to be kept, at an annual service fee (except in the case of Thoroughbred mares) of not more than \$10 to insure, such service fee to become due and payable only when mares prove to be in foal.

Any person, firm or corporation owning or controlling any Thoroughbred stallion in regard to which all of the conditions above set forth shall have been duly and properly fulfilled, shall, on production of satisfactory evidence thereof and of the fact that a reasonable number of mares, other than Thoroughbred mares, have been served during the season, be entitled to receive at the close of each such season the sum of \$250 from the funds of the Live-stock Branch. If, in the event of a horse dying or becoming incapacitated for service during the season, an approved substitute is immediately placed in the same district, the Minister may, after due consideration of the circumstances, authorize the payment of the subsidy above mentioned.

The necessary forms will be furnished on application to the Veterinary Director-General and Live-stock Commissioner, Department of Agriculture, Ottawa.

[Note.—Such a policy cannot help but improve the light horses of the country. It insures the use of an approved type of sire which must show more or less prepotency when used on common or cold-blooded light mares. Owners of Thoroughbred stallions should avail themselves of this opportunity to secure aid, and owners of suitable light mares should not hesitate to use these horses. We hope that the results in 1912 will warrant the continuance of the plan, and that the light-horse industry will be greatly benefited by this policy from year to year.—Editor.]

### My Friend The Horse.

Among the many of those who rendered me, willingly or unwillingly, efficient service during my sojourn in the West, there are three I would especially mention. The first of these I met in Manitoba. He had come eastward from Alberta, and westward from Ontario. He, after passing through the various stages of pony life, with others, had been driven from the upper waters of the Big Saskatchewan toward the more settled portions of our "Great West," to be disposed of to some needy purchaser. I, a student in theology, with an ardent desire to serve the church and my country, in answer to an appeal of our Superintendent of Home Missions, found myself, in the autumn of 18—, located near the then Village of Brandon. Our acquaintanceship began under somewhat peculiar circumstances. Needing a servant, and hearing that a certain individual had a number to dispose of, I began investigation, discovering a corral in which a herd of ponies were enclosed. After preliminary negotiations and the desired information, I was permitted to make my selection. He was not what might have been considered by a careless observer beautiful. His body was emaciated, mane and tail unkempt; hair long, shaggy and matted; his general appearance dejected. Nevertheless, he exhibited certain features indicative of worth. His eye was prominent, soft, kindly and glowing; a head neatly formed, broad in front, and tapering, was crowned with a pair of ears of medium size and finely shaped and delicately pointed; nostrils wide and quivering with emotion; lips finely yet firmly cut, gave indication of intelligence and self-assertion, also an affectionate nature.

A slender, full-veined neck united the head to a pair of well-developed shoulders; a strong back, sturdy hips, clean limbs, and round, rugged hoofs, completed his structure. In color, he was black (although faded by exposure), with star and spot on right hind foot.

I took to him at once and made him my servant and friend (not slave), by right of purchase. Quietly he submitted to be haltered, led forth, apparently pleased with the change and prospective quarters. Nor do I think he ever had cause to regret the exchange of masters and situation. It was a transfer from a bleak, cold, inhospitable enclosure to a warm, well-lighted, comfortable stable, with plenty of good hay and grain in place of brown, closely cropped grass. My first impressions regarding his value remained unaltered to the end of our association. In every respect he proved a true friend—obedient, docile, sympathetic, helpful. Nevertheless, there were times of testing before we came to know each other's peculiarities and individual wants.

As yet he was an unbroken broncho, and must be made familiar with the saddle and its occupants. Several weeks of feeding, grooming and petting changed his appearance and attitude. His form grew round, eye sparkling, while his dingy coat assumed a coal-black hue. After a slight acquaintance, I ventured to ask for service. Procuring a saddle, through reasonable coaxing he offered it to be placed on his back, but indicated feeling of opposition to any riding processes

by a series of back-jumps. Quietly we proceeded to another serious undertaking—bitting. However, by gentle persuasion, this was also accomplished. Now came the critical period in our new relationship—mounting. Would he submit or rebel? The farmer with whom I boarded came to my assistance, and to see the fun. Gripping the bridle rein firmly, he essayed to hold my new friend while I mounted. To this there was a strong objection. No sooner had I reached the saddle than, with a toss of his head and a wild plunge forward, he threw mine host from him, and then attempted to rid himself of the unaccustomed and undesired burden. After a few bounds, pausing, he stood still; then, speaking to him quietly and patting gently his quivering neck, I assured him that no injury was to be effected. Suddenly he appeared to comprehend the situation and recognize what was required of him, and walked coolly away. No further urging was necessary; the breaking was completed; kindness had conquered fear; firmness, obstinacy, henceforward we were true friends, mutual in attachment, reciprocal in service. Although he had acquiesced to my wishes, yet the times of testing were not over, but, as gradually we came to understand each other, the surrender of his will to mine became more evident; while, on my part, I recognized what was best suited to his wishes, and never contraried them unless directly opposed to what was best for both. As the season was advanced, we did not become thoroughly acquainted with the country before winter's snow compelled us to follow beaten trails. Now occurred a new experience in my pony's life. His hoofs, though of superior material, could not withstand the wear and tear of hard, frozen roads swept bare by winds, and so his feet required shoeing. In the blacksmith's shop he was passive, submitting without a complaint, but when attempting to use his now encumbered feet he was at a disadvantage. He had rapidly developed into a companion of whom I need not be ashamed. Not only was he beautiful so far as form and color go, but displayed a fleetness and sure-footedness, combined with more than average intelligence, in facing all kinds of difficulties, that caused him to be widely known, and also a general favorite. On the occasion of his being shod, after starting homeward, he found himself hampered by not only the weight of iron, but the long toe-calks proved an impediment in his birdlike progress, and on a fairly level trail my friend stumbled and fell on his knees, while I rather hastily and gracelessly dismounted over his head. On arising, I turned to view the situation, and beheld him standing with a crestfallen look, but with also a merry twinkle in his eye. But it never occurred again. For nearly twelve months we were comrades over hills and dales, by night and day, we rode together. No ravine was too deep or bluff too steep for us to plunge through or climb. As summer spent itself, we grew more and more intimate. By reason of his coal-black, shiny complexion he was dubbed "Darkey Joe." While his companionship was most delightful in every way except vocally, yet Darkey had strong likes and dislikes. To be turned loose upon the prairie for a gallop with the farmer's Collie was his highest delight, but any interference on the part of a neighbor's hound was met with aversion.

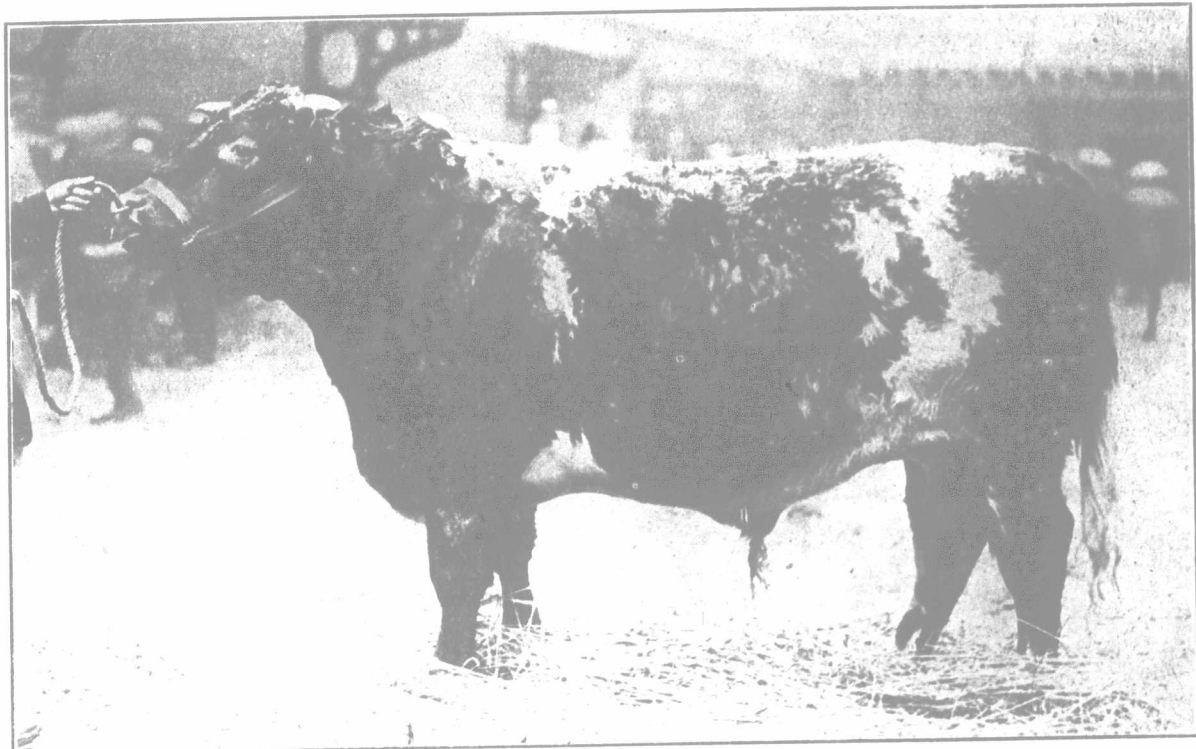
While never refusing to go, he objected to standing while I was seated upon his back; so,

when I desired to converse with anyone, it was necessary for me to dismount. He would take a fence like a hunter, even barbed wire; ford rivers swollen and turbulent, even when to the saddle-flaps, but refused to leap over a medium-sized snake lying on the trail, nor did repeated attempts overcome the repugnance manifested. When visiting at the homes of my parishioners, all I required to do in order that Darkey might be secured was simply drop the end of a lariat which was attached to his neck upon the ground, and place the reins over the pommel of the saddle, when he would stand quietly until the rope was lifted. Should I be walking (as I often did when visiting men at work), the lariat was left hanging, and he would follow me like a child. Thinking to lighten his burden, I procured a cart and harness, but he never took kindly to that mode of travelling, and so I returned to the saddle.

His reputation led many to covet a delightful ride, but invariably they were disappointed, as he felt his time ought to be devoted to business, not pleasure. Lady riders, while tolerating, he did not enjoy. Challenges to trials of speed were often given and accepted, usually resulting favorably to my four-footed friend.

As my term of service on the mission field was for one year, and the time of my departure had arrived, the question arose, what would become of Darkey? To take him with me was impossible; to leave him behind, was heartrending. Many an offer had I received from would-be purchasers, at figures far in advance of what I had paid, but these offers were futile. I sought a home for him where he would be kindly treated. A student missionary of different persuasion hearing of my desire, besought his company, assuring me that he would seek the welfare of my friend. Arrangements were made for an exchange of masters, but not without anxious foreboding on my part, since I was afraid my missionary friend lacked the essential qualification required to enter sympathetically into the feelings of one so sensitive as Darkey. But, as "the best of friends must part," felt I would rather risk him in the hands of a missionary than farmer or liveryman. The day of sad farewells came around, and for a few paltry dollars I gave my choicest, truest, four-footed friend to the charge of another. Struggling to retain my composure, I patted his glossy neck, while he rubbed his beautiful head against my shoulder. When some distance away, he whinnied a last farewell, and thus we parted, never to meet again. If horses had eternal natures, I am sure we would meet again. The memory of those days still lives with me, and impressions made are still uneffaced. I heard about him several times afterward, but the reports were of such a nature as to cause me sorrow. Whether my surmises were correct, or not, regarding his new master's qualifications, I cannot say, but apparently something was wrong, as he and Darkey speedily fell asunder and soon the poor fellow found himself in the hands of a horse-trader. What a degradation; but it must have been his dislike to the doctrines taught, for apparently he had "fallen from grace."

[Note.—If more horse-owners would take as deep an interest in the welfare of their animals, there would be less work for societies for the prevention of cruelty to animals, and less ill-used, emaciated, abused horses.—Editor.]



Golden Sceptre

Shorthorn bull. First of senior yearling class at Birmingham, England, Spring Show and Sale, 1912, purchased for exportation to Canada.



## LIVE STOCK.

Damp hogpens often cause diarrhea in young pigs. Place the sow with the young litter in the dryest pen in the piggery, or, better still, in a portable pen by herself.

No better ration for the newly-weaned litter can be had than good skim milk and shorts. The youngsters relish this and thrive on it. As they grow older, mixed chopped grains can be added.

A young bull should not be allowed to run in the yards or pasture with the cows. A critical period in the sire's life is between the ages of nine and twelve months, or just when he is developing from the calf to the "bull" state. Seclusion is the best thing for him, but not without exercise. Give him a good-sized box stall, and allow him to run by himself in the yards or paddocks each day. He must have all the exercise possible, as inactivity will destroy his potency.

The breeder is reasonably assured that the offspring of a pure-bred sire and a grade female, no matter what the class of stock he is breeding, is going to resemble the sire. This is prepotency—that quality which is present in greatest degree in animals of the highest type of pure breeding. It is the quality which makes the sire the greatest asset to the herd or flock. In buying a herd-header, look for the indications of it in both the animal and his pedigree.

A good pedigree is a valuable asset to breeding stock, still it is not a guarantee of excellence. It is necessary to know the history of the different individuals composing the pedigree. Like tends to produce like. The offspring tends to resemble, in a greater or lesser degree its progenitors, not only the immediate ancestors on one or both sides, but all the ancestors for generations back. It is only when all these have been known to be animals of the approved type that the animal can be said to have a high-class pedigree.

Give the young calves a chance to exercise in the barnyard during the warm days of spring. Very often the calves are neglected in this respect, the yard being taken by the older stock. None of the farm live stock will appreciate a few hours in the warm spring sunshine more than will the calves, and no other class of stock will be more greatly benefited. Exercise, pure air and light are essential to the calves' best development, and the open, sheltered yard is the place for them to get all three.

Some breeders owning a large herd of grade stock have been known to purchase a first-class pure-bred sire, and to use him to good advantage in their herds. This sire left them some good stock—so good, in fact, that they decided to use one of his get as a herd header when he himself is disposed of. This is a retrograde movement, and should in all cases be discouraged. The only sane method of grading up a herd is by buying year after year just a little better pure-bred bull than the one which preceded him at the head of the herd.

If a reasonably warm pen is provided, early shearing of the sheep has many advantages. It is a saving of time if done now, before the busy season commences. It also serves as a means of ridding the sheep, to some extent, at least, of ticks, many being killed and disposed of in the wool, and others removing to the lambs, which can be easily dipped, practically cleaning the flock. It is also a great comfort to the sheep, because, if left on until farm operations commence, the wool is often not removed until far into the hot weather. Clip the sheep now.

Spring is one of the seasons when it is most difficult to keep the live stock from falling in flesh. They seem to have a longing for the green feed of summer, and the dry winter feed is not so well relished. In the colder weather, roots or silage and good clover hay are among the best roughages at hand, and should be used, perhaps better relished than the rougher feeds. The latter be very well preserved. They should be affected in spots with a disinfectant during the season, and are not very palatable. They should not be allowed to feed in these rows, and extra grain may be added to the ration if profitable.

### The Stability of Sheep-Raising.

From the earliest times the flock has been the mainstay of farmers of many lands. Even when subjected to the extreme fluctuations of markets and the handicaps of disease and insect pests, the sheep-raising industry has continued to flourish. The oldest shepherds unite in advising that the time to begin with sheep is when there is a period of depression, and the way to make sheep-raising regularly profitable is to remain in the business during periods of high and low prices. Therefore the present depression offers an exceptional opportunity to the beginner who desires to start with a small flock. And the beginner should always choose the small flock.

Another fundamental principle of profitable sheep-raising is that it goes hand in hand with the general farm. No kind of meat animal fits into the economy of the diversified farm better than does the sheep. It has been repeatedly urged by both practical farmers and economists that the sheep industry may be made permanently profitable in this country despite tariff influences. —[The Country Gentleman.

### Good Prices for Early Clip.

Editor "The Farmer's Advocate":

The first wool to be marketed in Lindsay this season was brought to town on March 22nd by James Found, of Little Britain, and sold at the woolen company's mills. The wool was of good quality, free of cotts and chaff, and netted the seller an average of \$1.36 each for his 18 fleeces. Mr. Found is not fitting his sheep for the show. He clips regularly in March, just before the lambing season, as he claims the sheep thrive better after being relieved of their heavy fleeces. They do not suffer from the cold, as they are kept in a warm place for a fortnight, after which the growth of wool is sufficient to protect them from inclement weather. "One advantage of early clipping," says Mr. Found, "is that after all hands are busy with the seeding, this is one less task, as the shearing has already been done during the slack season. The chief benefit of early clipping, however is that, when shearing, I kill every tick to be seen, and a liberal dusting of dry sulphur after the fleece has been removed will dispose of any that may have been missed by the shearing. When the fleece is left on until after the lambs are dropped, the ticks at once leave the greasy wool of the mother sheep and harbor on the soft, fine wool and tender skin of the lambs. A lamb covered with ticks will be no heavier at six weeks of age than a lamb should be at two weeks if free from vermin." Mr. Found also stated that his flock of sheep paid him well. He is of the opinion that, when properly cared for, there is nothing a farmer can raise that will bring better returns. When one considers that farming land in the Little Britain district sells readily at \$100 per acre, and that there are many land-owners in the banner township of Mariposa who are quite as optimistic about their flocks, and have demonstrated to their own satisfaction that sheep are profitable to keep on the highest-priced land in the Province of Ontario, one must naturally arrive at the conclusion that, if sheep are profitable in Mariposa Township, they can surely be raised with profit in any other township in Victoria County. ALEX. HORN.  
Victoria Co., Ont.

### Stiffened Pigs.

It has been a long, hard winter on live stock, and especially on swine. Prolonged confinement in cold pens, not always too dry, with denial of access to those earthy and mineral substances that pigs crave, tells on the digestion and joints, so that stiffening and unthrift are quite common. A large percentage of cases of stiffening are due to indigestion; others to rheumatism. Fortunately, the same rational line of treatment will tend to prevent both. To begin with, the pens, and especially the sleeping places, should be dry. This requires that the bedding be frequently changed. Moisture from the lungs will dampen the straw, even in cold weather, if left unchanged for several days. Imagine yourself sleeping, on some of last winter's bitter nights, or even days, in a damp bed, with no artificial heat in the room! You would want a lot of clothing above and under you. The poor pig often has little other above or below, and when that little is damp, no wonder he suffers. Such conditions tend directly to rheumatism, and also tend to check digestion. When to this factor is added the unpalatableness of too highly concentrated feed, mixed with ice-cold water, and lacking the mineral condiments that a pig craves, as you do not and cannot, the marvel is that he has any strength at all. Pigs in winter confinement require the pens to be free from draft, a sufficient amount of bedding, renewed frequently; some kind of rough, laxative food, such as roots or silage, mixed with chaff, not too concentrated a ration, and water freely, as well that as a little

above the temperature of ice, and as much exercise as can be conveniently provided. In addition, they should have access to some such mixture as salt, ashes and charcoal, or salt, sulphur and ashes. Even coal ashes alone will be eaten in considerable quantity, as will earth from a root cellar. These things are cheap, and will make gains while saving grain bills.

But, while prevention is the logical and proper thing, there are many pig-feeders more anxious just now to learn of a remedy. This is not easy to suggest. Begin by correcting defective conditions, supplying the pig's wants, as indicated above. By one means or another, make it a point to provide exercise. If possible, give them the run of a barnyard, but do not allow them to nestle in fermenting horse manure, as this is a direct cause of rheumatism. Roots, exercise, a dry sleeping place and variety of feed, and a judicious mixture of condiments, will do about all that is possible until grass comes. Then get your stiffened pigs on pasture, and turn them off as soon as fit.

## THE FARM.

### Round Cement Water Tank.

Editor "The Farmer's Advocate":

As you asked for descriptions of cement supply tanks, I will describe one built in this neighborhood last summer. The foundation was provided by digging a hole 8 feet in diameter and 1½ feet deep. About half a load of stone was dumped into this, and concrete laid on top to make a floor. The wall was then commenced, and made 6 inches thick, 1 to 8, without stones, the concrete being held in place by metal rings the same as for a silo, but smaller, and without battering. It was stayed with wire about every two feet, and six feet up four wagon tires were laid across, and to these was hung, with wires 3 inches long, a circular wooden platform, on which concrete was laid six inches deep, to form a bottom for the water tank proper. After the concrete dried, this false wooden bottom was removed by cutting the wires. Six feet higher up, more wagon tires were laid, and the top made the same as the bottom. A man-hole about two feet square was left in the center of the top. As this was an elevated tank, the pipes were protected by packing. About 1½ feet of ice remained all around the inside as high as the water rose. Water was pumped in about twice a week. Very little ice formed on top of the water. The man-hole was protected by a tight-fitting trap-door, made of inch boarding, cleated. The concrete was plastered inside and out with pure cement. It cost, by contract, \$45, and supplies both house and barn. It is protected on the south-west side by a medium-sized barn on 8-foot wall, and on north and north-west by orchard and medium-sized house and implement shed, but exposed completely to a twenty-foot wind sweep from the west. On the whole, I consider it fairly well protected, and the owner is well satisfied with results. This winter the temperature went 25 degrees below zero for several days, and for about six weeks hung around zero, off and on. J. H. B.  
Perth Co., Ont.

### Poor Seed Corn.

Just how serious the seed-corn situation is in Iowa was demonstrated in an extensive test of farmers' seed corn conducted at Mason City recently by a representative of the Iowa State College.

Of a thousand ears, coming from ten different farms, where they had been selected and set aside for seed because they seemed outwardly to be the best, only 311 ears contained no dead kernels, and were, therefore, fit for planting.

In one lot of 100 ears not a single ear fit for seed was found. In two other lots of 100 each, only 17 good ears were found in each. In a fourth lot of 100 ears, only 20 were fit for seed. The best lot of 100 ears yielded only 58 good ears for planting. These tested ears were not common ears; they were brought in for testing by reasonably careful farmers who selected their seed ears in the field last fall, and took reasonable care of it through the winter, probably, they represented 1,000 of the best ears available on ten representative farms.

The cost of planting corn like that without testing can be estimated. Prof. M. L. Mosher, of the Extension Department of the College, and an expert in corn, says that to plant such seed as tested at Mason City would mean a reduction of probably 20 bushels per acre in the yield. "That is just an approximation, of course," said Mr. Mosher. "In an average year, covering all sections of Iowa, we find that the seed corn used has about 12 per cent. of dead kernels. That average is based on the test of 3,500 samples taken through a series of years in various sections from elevator boxes. In an average year, this 12-per-



cent. seed corn, grown under good conditions, has produced 57 bushels per acre. Taking those averages as a basis, this Mason City corn, which is 40 per cent. dead, would produce not more than 35 bushels per acre if grown under most favorable conditions.

The 1,000 ears in the first Mason City test are not poorer than the average. I have just received a report of a second testing of seven lots of 100 ears. In one lot, taken from the crib, not a single kernel of the 100 ears proved live. In a second lot of 100 only one ear was without dead kernels, and in a third only eight. The lots, on the whole, were far worse than those of the first test. I believe that farmers near Mason City are up against it for seed corn.

The College is active with preparations for the seed corn trains which will run over the lines of the Burlington and the Rock Island railways in Iowa in the next few weeks. It is also distributing 100,000 pieces of seed-corn-testing literature through its own mailing lists and through commercial clubs and business houses to which it is furnishing these bulletins free.

**Remove the Cause.**

It is sound statesmanship that requires boards of health to enforce the regulation that demands every urban householder to have his premises in a sanitary condition at a comparatively early date in the spring. Unless some such regulation were operative, disease, with the consequent loss of time and lowered working efficiency, would be more prevalent than it is. Good sanitary laws, vigorously carried out, mean more healthful conditions for living, and a death rate greatly decreased. Cities and towns and villages, in sheer self-defence, rid themselves of disease-breeding debris, and for the same reasons encourage such breathing places as public parks and recreation grounds.

So far, country people in Canada have not felt the sharp spur of necessity for extreme caution in such matters. But, though the spur has not been felt, the necessity for at least an annual hunt for unnecessary and menacing clutter is quite obvious. Now that the menace of the fly to health has been demonstrated, a safe rule to follow is the clearing up of all breeding places of this disease carrier. Cans should be incinerated, the yards raked, and holes where water may be filled up, dead leaves buried, and all rubbish gathered up and burned. Stables should be swept out and treated to a liberal spray of white-wash made from fresh lime. If these matters be attended to, and screens be provided for the doors and windows of the farm premises, a greater advance will be made in the direction of public health than most people imagine. The great majority of country people already attend to such matters, without any suggestion of what Burns calls "the hangman's whip to hold the wretch in order." The exceptions, however, are numerous enough to provide public incubating quarters where diseases are hatched, to the continual menace of the community. These unsanitary homes furnish the first cases of disease. The schools and public gatherings make the disease thus started an epidemic.

The farm barnyard should receive careful attention. Where possible, all manure should be hauled to the fields for use as fertilizers. Should this be impracticable, the manure should be thoroughly tramped by the stock. No animals will do this tramping better than colts as they take their usual exercise. After the manure has been compacted in this way, it should be covered with straw or chaff. In this way the manure is kept in good condition, while flies are kept down and odors prevented.

Needless to say, the cellars, both of the house and of the barn, should be thoroughly searched for remnants of vegetable matter, and cobwebs and kindred foulness. When all such malodorous and death-breeding causes have been removed, the cellars will be greatly improved by whitewashing and the free admittance of fresh air and sunlight.

Indeed, the extreme of cleanliness scarcely goes far enough in all matters of sanitation. All ground where slops have been thrown, or which has been saturated with barnyard water, should be plowed and sown, as the odors from such places are the foes of health, while the ground itself becomes the breeding place of hurtful germs. Hen-runs and hog enclosures should be similarly treated, to the great advantage of both the farm stock and their owners.

W. E.

The Nova Scotia Agricultural College at Truro has had a number of inquiries asking whether micro-culture bacteria for alfalfa, red clover, alfalfa clover, peas, beans, etc., would be supplied by the College as heretofore. The College will continue, as before, to supply bottles of nitro-bacteria, each containing sufficient to inoculate 12 pounds of seed.

**Corn Cultivation and Production.**

Editor "The Farmer's Advocate":

As the time for planting is fast approaching, a little discussion of the cultivation and production of that most valuable farm crop, "corn," will not be amiss. Corn is taking such a prominent place in the farm economy that too much cannot be said or written to enlighten those who, we might say, are beginners in the production of this valuable crop.

A little time spent in testing the vitality of seed will often save many dollars at harvest time. Corn should be purchased on the cob, so that undesirable, damaged or immature cobs can be discarded at planting; and it is always well to keep the corn on the cob until planting. It is also good practice to discard the butts and tips. This insures a more uniform type of ears and a greater yield at harvest.

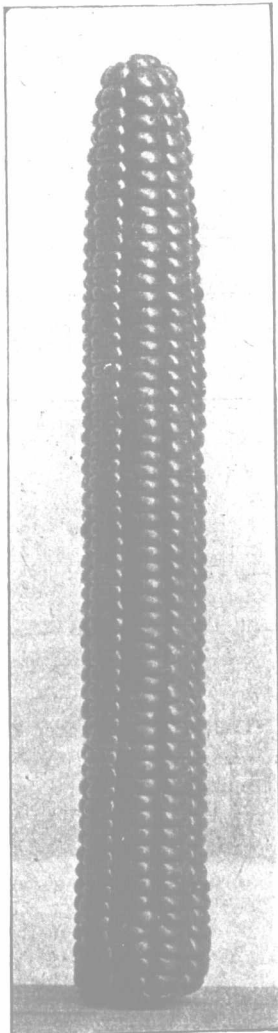
At "Sunny Acres" we follow a three and four year rotation, and corn comes in this rotation as our most staple crop. The corn follows clover sod either of one or two years' standing. Our ideal preparation for corn is to fall plow rather deeply, covering the furrows well up, so that the frost may have a chance to pulverize and loosen the soil. This, as a rule, is top-dressed during the winter with farmyard manure, at the rate of fifteen loads per acre. We find that we almost invariably get better results from this treatment than when the manure is plowed down. The young plants seem to start more quickly and vigorously in the spring. The plant food is retained at the surface, the soil is made to contain more humus, and, consequently, its powers for holding moisture are increased.

As soon as possible in the spring the fall plowing is broken down with the disk harrow and drag harrow, and the manure well incorporated with the soil by use of the spring-tooth cultivator. The sooner it is worked in the spring after the soil is sufficiently dry, the better, as the crust is broken, thus preventing to a great extent the evaporation of the soil moisture that has been store up during the winter, besides destroying many noxious weeds that may have germinated during the early spring. Cultivation before planting should be frequent—in fact, continuous—as we find that weeds are more easily exterminated when they have just germinated than when they are once rooted. At this time they are young and tender, and when brought to the surface are easily parched by the sun.

Planting may be safely started after May 10th with us; we try to finish before the first of June. I am still in favor of planting in check-rows, especially so because we get a better quality of ears. But, even for silage, I believe the check-row is the most satisfactory, as one gains in quality what is lost in quantity. Our planters are set to drop four to five kernels to the hill, although I believe that three strong plants are sufficient; but we plant thick, in the belief that it is easier to thin out than replant.

With us, cultivation begins directly after planting, and continues until the corn is so heavy that the horse cannot walk between the rows without injuring the crop. We generally aim to roll directly after planting, and follow with a light harrow just before plants appear. I think one stroke with the harrow at this time is as beneficial as several cultivations later; when the weeds get once rooted.

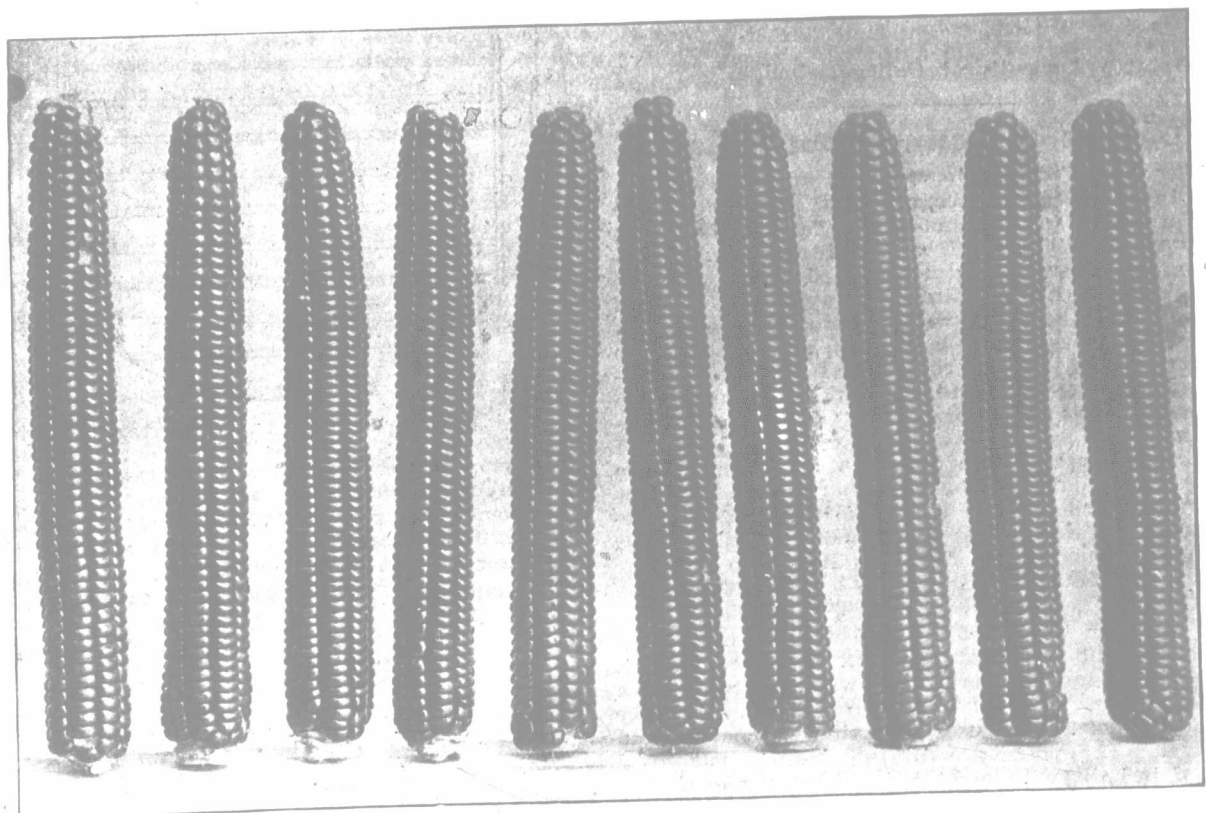
The scufflers are put to work as soon as the rows can be followed, and the soil is cut as close to the row as possible. We usually cultivate twice in a row, cutting once each way, and running the cultivator narrower than is ordinarily done, and keeping close to one row each way. In this way, there is only one row to watch, and the soil is cut both ways; thus, very little surface is



A Model Ear.

Sweepstake single ear of flint corn at Tillbury Corn Show, 1912. Longfellow; exhibited by L. D. Hankinson.

One of the foremost essentials to profitable corn production is "good seed," and too much emphasis cannot be laid on this particular phase of the subject. The seed should be procured early in the season, if it is not already to hand, in order that it may be tested before planting.



Ten of a Kind.

Ten ears of Longfellow flint corn, sweepstakes winners at the recent Tillbury Corn Show, grown according to methods described in article on Corn Cultivation and Production.



missed. This does away with a great deal of hand-hoeing.

We believe that cultivating should be done frequently, especially after every rain, to keep a dust mulch about the corn to retain the moisture.

It is not always practicable to follow the methods I have outlined to the letter, but where we do follow them as near as possible, success is nearly always assured. Neither do I think our method exactly applicable to all conditions, but, rather, think we should study our conditions and make our methods suit our requirements.

L. D. HANKINSON.

Elgin Co., Ont.

**Experiments with Farm Crops.**

The members of the Ontario Agricultural and Experimental Union are pleased to state that, for 1912 they are prepared to distribute into every township of Ontario material of high quality for experiments with grains, fodder crops, roots, grasses and clovers, as follows:

No.	Experiments.	Plots.
1	Testing three varieties of oats.....	3
2a	O. A. C. No. 21 barley and emmer.....	2
2b	Two varieties of two-rowed barley.....	2
3	Two varieties of hulless barley.....	2
4	Two varieties of spring wheat.....	2
5	Two varieties of buckwheat.....	2
6	Two varieties of field peas.....	2
7	Two varieties of spring rye.....	2
8	Two varieties of Soy, Soja, or Japanese beans.....	2
9	Three varieties of husking corn.....	3
10	Three varieties of mangels.....	3
11	Two varieties of sugar beets for feeding purposes.....	2
12	Three varieties of Swedish turnips.....	3
13	Two varieties of fall turnips.....	2
14	Two varieties of carrots.....	2
15	Three varieties of fodder and silage corn.....	3
16	Three varieties of millet.....	3
17	Two varieties of sorghum.....	2
18	Grass peas and two varieties of vetches.....	3
19	Rape, kale and field cabbage.....	3
20	Three varieties of clover.....	3
21	Two varieties of alfalfa (lucerne).....	2
22	Four varieties of grasses.....	4
23	Three varieties of field beans.....	3
28a	Two varieties of early potatoes.....	2
28b	Two varieties of medium-ripening potatoes.....	2
28c	Two varieties of late potatoes.....	2
29	Three grain mixtures for grain production.....	3
30	Three grain mixtures for fodder production.....	3

Each plot is to be two rods long by one rod wide, except No. 28, which is to be one rod square.

Any person in Ontario may choose any ONE of the experiments for 1912, and apply for the same. The material will be furnished in the order in which the applications are received, while the supply lasts. It might be well for each applicant to make a second choice, for fear the first could not be granted. All material will be furnished entirely free of charge to each applicant, and the produce will, of course, become the property of the person who conducts the experiment. Each person applying for an experiment should write his name and address very carefully, and should give the name of the county in which he lives.

C. A. ZAVITZ,  
Director.

Ontario Agricultural College, Guelph.

**Details of Round Roofed Barn.**

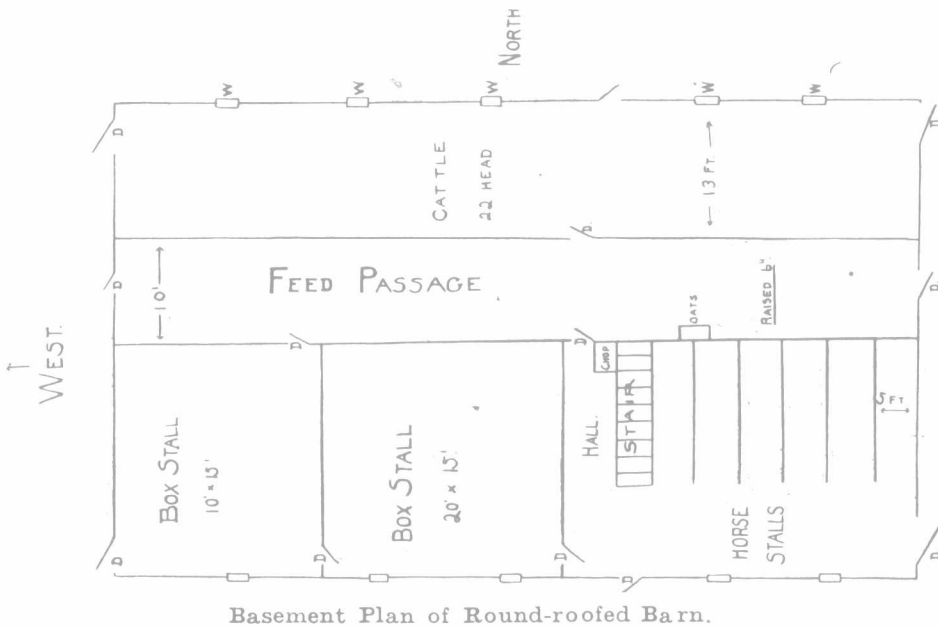
Editor "The Farmer's Advocate":

In your issue of August 31st, 1911, you gave us a photo of a round-roofed barn, which suits my requirements very well, built for Mr. McCallum, Middlesex County, Ont. I would like to know how his building is constructed, kind of frame, size, height of walls, how rafters are made, distance apart, and how they are fastened to plate; also, kind of roofing. I have seen several plans in your valuable paper, all of which help me to design one of my own. I have been planning for a basement barn 80 x 36 feet, which I think is large enough for a 100-acre farm. There have been quite a number of barn plans in recent issues which give us a lot of instruction in regard to plank frames and cement walls. Father began taking "The Farmer's Advocate" as far back as 1880.

H. DICKSON,  
Quebec.

My barn is 40 feet by 70 feet, built on a nine-foot cement basement wall, 12 inches thick. It is an ordinary timber frame, with 12 x 12 posts. The mows are, one 20 ft., two 14 ft., and the floor, 14 ft. We used the following for the roof: The posts are 12 x 12, spaced 12 ft. apart. The roof is built with eight half-inch iron spikes cut 1 inch by 8 inches, 11 inches long. These are nailed together, making a frame of spikes by about 8 inches, with a 2-inch gap between spikes. The ribs are 3 inches by 3 inches, 12 feet long, for centers, and ends 3 inches by 3

inches by 12 feet long, to project over the ends of the barn. These ribs go lengthwise every two feet apart. The ends are sized down one inch, leaving a shoulder on each side of circle of one inch. Those ribs are all the sheeting used to which the steel roofing is nailed. The metallic roofing comes already curved. The idea of the oval is to give room above, using short posts. It has more capacity than a barn with 20-foot posts and an ordinary roof. The end circle is framed in the bent put on the end beams. I enclose plan of basement, which is equipped with steel cattle stanchions. The two small boxes shown are for oats and chop coming down from granary. ALEX. McCALLUM,  
Middlesex Co., Ont.



Basement Plan of Round-roofed Barn.

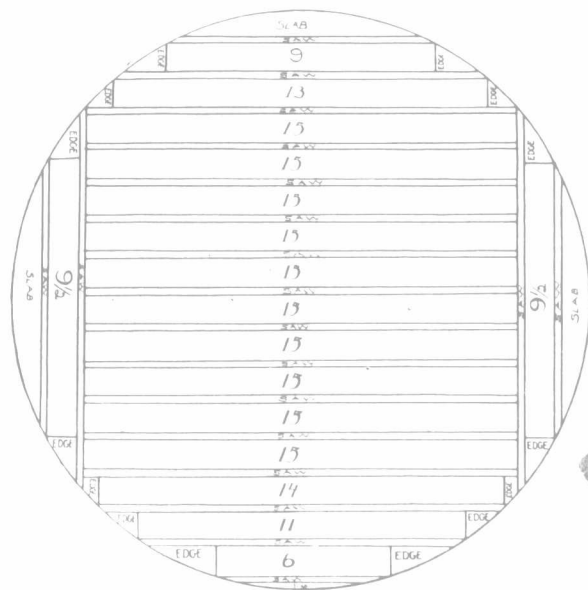
**Economical Sawing of Log.**

Editor "The Farmer's Advocate":

Having had many years' experience in handling logs and lumber, I will offer a little more information for the benefit of E. G. T., re inquiry of Feb. 15th.

As Mr. Gilmore says, the term "standard" may mean different sizes of log, but the "standard" which has been made use of in this locality since my earliest recollection calls for a log 20 inches in diameter (at the small end) and 12 feet in length, containing 200 feet ("shanty measure") of inch boards.

The above rule for measuring logs is figured this way: The diameter, multiplied by one-half of itself, gets the contents (board measure); thus, one 12 inches in diameter and 12 feet long would contain 12 x 6 = 72 feet; another, 16 inches in diameter would contain 16 x 8 = 128 feet, and so



Sawing a Log to Advantage.

on; but, nevertheless, as will be seen by the accompanying diagram, the above rule is not correct. For a 20-inch log will actually cut better than 200 feet, and a good sawyer will get the following from a 20-inch log:

10	11	12	13	14	15	16	17	18	19	20
10	11	12	13	14	15	16	17	18	19	20
11	12	13	14	15	16	17	18	19	20	21
12	13	14	15	16	17	18	19	20	21	22
13	14	15	16	17	18	19	20	21	22	23
14	15	16	17	18	19	20	21	22	23	24
15	16	17	18	19	20	21	22	23	24	25
16	17	18	19	20	21	22	23	24	25	26
17	18	19	20	21	22	23	24	25	26	27
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16	17	18	19	20	21	22	23	24	25	26
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19	20	21	22	23	24	25	26	27	28	29
20	21	22	23	24	25	26	27	28	29	30

**Underdrainage.**

Editor "The Farmer's Advocate":

In the course of a month, drainage, or lack of drainage, as the case may be, will be in the minds of every busy farmer over the country. Where the drainage has been carefully attended to, the thrifty farmer will be getting in his crop early, thus insuring an early harvest and a good growth before the scorching July sun or maybe drouth, checks his crops. As J. H. Gridale, Director of Experimental Farms, said, before the Canadian Seed-growers' Association, as quoted in "The Farmer's Advocate" of March 14th: "Everyone of us who has had anything to do with grain-growing in this country knows the

absolute necessity for underdrainage under almost every condition one can think of in these Eastern Provinces, if we are to have the best success with seeding-down and grain-growing." Let me add that it pays to do it carefully, for, at the best, it is expensive and it is amazing how much of it has been done in a hazardous manner. The cost of a good tile drain to the acre is considerable, but it is justified, as the improvement is a permanent one, and when it is once made there is a continuous profit from it. This is the correct

view, but it is so only for those who undertake to work in a systematic way, and have every detail right. Men are constantly laying tile in flat lands, without any definite system for the farm, without having accurate levels determined, and without calculating the amount of water finally to be carried by the main and the capacity of tile that are used. Very often drainage is begun without sufficient capital to complete what is needed. In such cases, the chief thing, when money is invested to drain the wettest fields, is to have it in the beginning of a system of underdrainage that will be right when it is finished.

Where you have much wet land to contend with, it is sometimes a difficult problem to provide an outlet, as drainage is useless if there be no outlet. I have seen men begin work with a guess, and end up in the air. The correct thing to do is to get the levels over all the land, having a common outlet. It pays, in the end, to employ a competent man for this, and when he has found the levels of all the surface and the length of the proposed drains, you may know exactly how much fall to the hundred feet he can get, how deep he must cut at every point, and what is possible in the way of thorough drainage with the outlet obtainable. A competent surveyor will be able to determine where the mains should go to be the least cost, and will place a stake every hundred feet along each line of mains and laterals, giving the exact cut at that point to keep the grade of the drain right. Then you are not working by guesswork. If the levels are correctly taken, the exact fall figured on, and the tile laid at the depth estimated on, the system of drainage must work and must do what is expected of it.

Very often a mistake is made in using too small tiles for the mains. You must always consider carefully the amount of fall in a drain, for upon that the capacity of the tile depends. Water will run through a drain that has a fall of only half an inch to the hundred feet, but the work must be done accurately, and then the water moves slowly. When the fall is three inches to the hundred feet, the capacity of the size of tile must be greatly increased. Sometimes the drain is so poorly made that the tile is below grade in some places, and above grade in others. Although this will carry the water for a time, and the pressure at the head will shove the water out, yet silt will finally fill the tile that is below the grade, and eventually the drain will be destroyed. The larger the tile, the less the danger of silt filling, but where the ground is solid it is not economy to pay for large tile, when accurate work will make the smaller tile efficient.

The size of the main should be in proportion to the size of the land to be drained, the thoroughness of the drainage, the character of the land, and the amount of fall.

Very often we find surface water flowing on to low land from higher levels. The land may thus have some natural underdrainage which will considerably relieve the tile. It is not possible to give a rule that will always apply in determining the proper size of a main, but the rule which my

C. H. S.



father used for finding the capacity, and which I have always found satisfactory, was to multiply the diameter of the tile by itself, and divide the product by four. The result is the number of acres whose waters can be carried by that size of tile. If you have a good fall, one may safely divide by three, instead of by four. As this rule is only a rough guide, one must, of course, use judgment in applying it. For laterals, the tile may be small if care is taken in laying them. Where the bottom of the drain is solid and the grading perfect, a two and a half-inch tile has been used, and given perfect satisfaction; but in soft land it is nothing unusual to have to use a four-inch pipe to permit a slight settling out of line, without closing the drain.

The work of underdraining is still done chiefly by hand. Where the ground is flat and free from stones, machines for the purpose can be had, where drainage is done on an extensive scale, but they are not profitable on the majority of farms needing drainage. The correct tools to be used are the long-handled shovel, the tiling spades, the pick, and the grader. The expense of the digging depends not only upon the character and condition of the soil, but also upon the class of workmen employed.

The chief point to consider is to have each tile on the grade, neither above it nor below it. You can easily do this when the levelling has been done and one knows the depth of the cut at each hundred-foot mark. Place two stakes at each point, one on each side of your proposed drain. Draw a string across from the top of one stake to the top of the other, five and a half feet above the proposed grade. Do this at each point, and the strings will be in line, all being five and a half feet above the grade. Take a staff five and a half feet long, and as the digging proceeds test each foot of the completed trench. When one end of the staff is on the grade, the other end is in a line with the strings; consequently, the least inaccuracy in the grading is easily seen.

Examine each tile, for one bad tile may destroy the value of the drain. I always try to get them hard-burned, and they should always have a clear ring. For best satisfaction, lay the tile by hand, and turn it so that the top joins closely, as this insures the water rising in the pipe, not falling into it. Make the first filling of the trench by spading down some fine soil from the sides. This light covering prevents any displacement by heavy clods or pieces of sod when the remainder of the filling is done with the plow.

Carefulness is the keynote to successful underdrainage. Begin with the right system. Have the grade right. See that the main has sufficient capacity. Use only good tile. And make the joints tight to keep the silt from entering. By following this system, I know men, neighbors of my own, who have turned the veriest swamp-land into the finest farms in the country.

Carleton Co., Ont.

J. S.

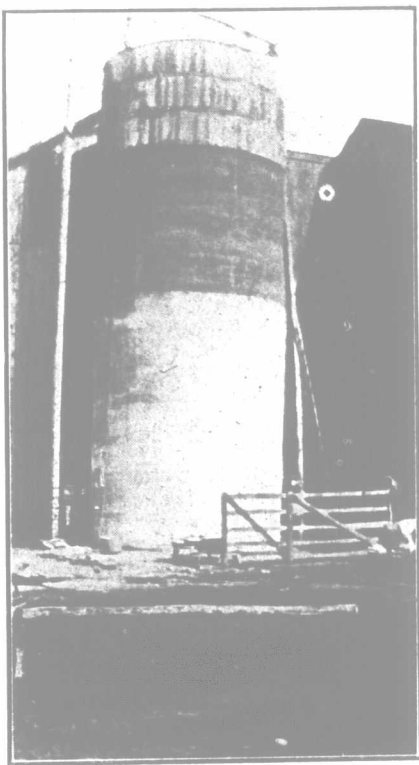
[Note.—We agree with J. S. that underdrainage is one of the most important spring operations on many farms, and the article is very timely, and quite practical. There are a few statements, however which, although apparently made from experience, are not wholly approved by our present-day drainage experts. The method of finding the capacity of the main is not one that could be followed in all cases. While it might answer in cases where small mains are required, there is no allowance made for the diminished friction and relatively-reduced danger of settling in the larger tile, which are very considerable considerations; and, according to this method, larger tile than are absolutely necessary might be used in many cases. We also think that, under no consideration should smaller than three-inch tile be used, although, under special conditions, 2½-inch pipes may have proved satisfactory. There is more danger of clogging, and any unevenness in laying would cause more trouble than in larger tile. There are several ditching machines in operation in Canada, and they are giving good satisfaction. A special machine is constructed for stony land, and, while the operation is more easily accomplished in level land free from stones, most any kind of soil can be drained by the use of the outfit, although, as stated in the article, on very stony land hand digging would likely be most profitable.—Editor.]

**Silo with Seven-inch Wall.**

Editor "The Farmer's Advocate":

The accompanying illustration is a cement silo built in their neighborhood last summer. It differs somewhat from the one built at Weldwood. I will try to indicate the points of difference. It is not a battered wall, but consists of a seven-inch wall from the ground up, a distance of 35 feet. It is also a foot and a half below ground, with same thickness of wall. It is a 13-foot silo, and wall mixed 1 to 8 with a cylindrical mixer, operated by one horse on the horse-power shown in the illustration. Several loads of stone were put into the wall, and every two feet was laid a single strand of No. 9 wire. Most of the cement

was mixed dry enough to require tamping, as this was the usual practice of the contractor, but the owner is now convinced that it is better mixed sloppy, like mortar, and not tamped. No scaffolding was used on the outside, but a swinging scaffold was used inside, attached to two wire cables, which worked through pulleys on the horizontal beam, supported by two uprights, and each connected with a powerful "drum" supplied with catches and dogs, and fastened near the base of the said uprights. This scaffold occupied the whole inner space of the silo, and afforded a very convenient platform on which to work. The concrete and stones were elevated by a horse and rope, attached to a barrow or large pail. This rope works through a pulley attached to an iron crane fastened near the top of one of the uprights, and swings to inside or outside of the silo, as required. This is much handier than the scaffolding. The inner rings were raised by hand, and the outer ones by ropes and drums, like the scaffold, and operated from the ground. The swinging scaffold proved very convenient for applying the cement wash inside. Nothing was done to the outside, and no roof was put on. Boards were laid across the top. The uprights, with the horizontal beam and crane, were securely fastened together on the ground, and raised by



A Perth Co. Silo.

means of the drums fastened to beams in the barn. The usual watering of the wall was observed, and the roof-plate bolts put in. Also a hook near top of wall, on which to hang a pulley for raising blower pipe. This is very convenient.

The photo was taken just after raising the curbs. As can be seen, the concrete in last one was not quite dry. The silo is connected to barn by two partitions of rough lumber, thus forming a wide chute. The doors are 18 by 33 inches, and four feet apart, and a wagon tire is embedded in the concrete over each one. Some of the wires embedded were doubled by twisting, but soon abandoned as unnecessary. The gravel was drawn two miles. The contractor charged \$5 per day, and was supplied with two assistants and horses, and, by faithful work, built the 35 feet in eight days. A common contract price around here is \$2.00 per foot for 12-foot silo. Following is approximate cost:

40 barrels cement, at \$1.75.....	\$ 70.00
30 loads of gravel, at 25 cents .....	8.00
2 loads stone, at 25 cents .....	.50
No. 9 wire .....	4.00
5 wagon tires .....	1.00
5 doors .....	1.25
	\$ 84.75
Labor:	
Contractor .....	\$ 36.00
Two men, 8 days, at \$2 .....	32.00
One man, 8 days, at \$1 .....	8.00
Same, moving apparatus, 2 days .....	10.00
Team, moving apparatus .....	3.50
Horse for hoisting .....	8.00
Board of contractor .....	4.00
Digging trench and building foundation wall .....	3.00
	\$104.50

Perth Co., Ont.

J. H. BURNS.

**Some Points in Oat Growing.**

From experiments carried on at the Iowa State College of Agriculture with different methods of growing and handling seed oats, and reported in Bulletin 128, we glean some valuable information.

Taken as a whole, imported seed did not turn out any better than the average home-grown seed.

The figures seem to show that seed oats become better adapted to a given environment by being grown under the conditions which the environment affects. In the 1910 test, only four of the nineteen new importations yielded as well as the same varieties that had been acclimated for one and two years. The loss occasioned by importation seems to be in direct proportion to the amount of change of environment occasioned by their travel.

The quality of seed used does not seem to be as important a factor as acclimatization. This point is noticeable within certain limits. Seed seriously injured by lack of acclimatization requires at least one more season to become even normal.

In order to give a maximum crop of any grain, a field must present an even stand of uniform plants. Fields that look ragged sometimes yield more than the one across the fence that has been properly tended, but this is no argument that the piece in question could not have been improved by the adequate treatment.

There are four factors that go to produce an even crop—uniform land, uniform tillage, uniform seed, and uniform distribution of seed.

The depth to which oat ground should be filled varies with the soil and season. Corn stubble will usually produce a fair crop if prepared well to a depth of two to two and one-half inches. The best crops, however, have been raised upon land tilled to a depth of four inches. The seed should not be put in more than one inch, below the surface.

Fanning seed once or twice improves the crop. Well-fanned oats will usually give a germination test above 90 per cent., but if they have at any time heated in the bin, they should be tested for vitality.

One thing is certain, that drilling is never detrimental unless the seed is put in too deep. This is a matter that depends upon the judgment of the farmer. It is not advisable to use a drill in the mud. Taking everything into consideration, it is safe to say that every farmer should own a drill, and should use it whenever the land is dry enough to permit.

**RATE OF SEEDING.**

Closely allied with the uniformity of distribution and depth of seeding is the thickness of seeding. In oats, this is almost entirely governed by the amount of seed sown. For the past six years this Station has conducted experiments to ascertain the optimum rate. The test plots have always been sown with a disk drill, using from four to twelve pecks per acre.

From the tests in 1906 and 1907 it became evident that in some seasons three bushels were insufficient, and thus higher rates were sown, up to 4½ bushels. It was also evident that in no case would less than two bushels be sufficient, so the lesser plots were discontinued.

In further tests, with one early and one medium variety, it was found that four and four and one-half bushels per acre gave best results. This indicates that the average farmer is planting too little seed.

**SHOCKING**

Opinions differ regarding the form of shock which it is best to use. This will vary with the ripeness of the bundles. Round shocks should be of medium size, open enough at the base so that they will dry quickly, and capped so as to expose the least possible amount of the heads to the sun and dew. The color of the grain depends largely upon these two points in shocking.

**SHOCK THRESHING.**

Shock threshing is a pernicious practice. After a man has gone to the trouble to raise and harvest a crop of oats, there is no excuse for his damaging their palatability by putting them "through the sweat" in the bin. Oats can be stacked and threshed for practically the same money as when they are hauled directly to the machine. When oats are "sweat out" in the stack, there is much more air around the grain, and it comes out bright in color and crisp in texture. There is usually at least one grade difference between stacked and shock-threshed oats.

Do not be afraid of a little wind when threshing; the light, half-filled berries are worth just as much in the straw pile as in the bin, in addition to the fact that they are eliminated from the threshing bill.



### Wireworms.

I have a piece of land which I had in pasture for about six years. I plowed it up last spring and sowed it with oats. When the oats began to grow, I noticed they were very thin, and soon began to look worse in patches. I thought it was white grubs that were working in them, as I saw several when plowing. Well, the crop was almost an entire failure. In the fall I worked the land and sowed it with wheat. It began to grow, but was very thin in places, and soon began to die, and before the snow came it was all gone but a little in one corner. Upon examination, I found what I supposed to be wireworms—a small worm about three-quarters of an inch long, and a little thicker than a pin, yellow in color, and shiny. I scratched about half a pint of earth up and found six worms in it. How will I get rid of them? Would it be wise to sow with mangels this spring, or would they destroy the crop?

W. L.

The injury is undoubtedly due to the ravages of the well-known pest, the wireworm. In answering the question, we cannot do better than quote from Dr. Fletcher's bulletin, "Insects Injurious to Grain and Fodder Crops, Roots and Vegetables," in which he says: "Wireworms are slender, cylindrical, yellowish or reddish-brown, tough and shiny grubs, with flattened heads and dark jaws. These grubs have only three pairs of legs on the three segments following the head, and a single short, sucker-like foot in the middle of the last segment beneath. When full-grown, they are about an inch long and only about one-twelfth of an inch wide. With these will be found many specimens in spring about half the size of the larger ones. Wireworms occur most frequently in low ground, and attack the roots of almost all plants, but particularly young wheat and corn just as it is coming up. They also bore into the tubers of potatoes in autumn. This injury is most frequent on land which has been for several years in sod, and the attack is most severe in the second season after the sod has been plowed down.

"Wireworms are the grubs of a large family of beetles known as click beetles, easily recognized by their power of snapping their necks with a click, with such force as to spring up into the air, if they fall on their backs. These beetles are many of them dark-brown in color, of an elongated oval form, about three times as long as broad, and tapering to the end of the body. The eggs are laid in summer about the roots of grasses and weeds, and the larvæ of most species take two years to come to full growth. They change to pupæ inside cells in the ground in July, and to perfect beetles about three weeks later, in August. Most of these beetles, like the May beetles, remain in their pupal cells until the following spring before emerging.

"Agricultural methods are the only remedies that have been of much avail. The wireworms which are injurious to the farmer are particularly those which feed upon the roots of grasses. When sod is plowed down, the larvæ during the first year feed for the most part on the decaying grass and its roots. Those in their second year of growth change to beetles in the first year, and do little harm, as they have had plenty of food in the decaying sod, without attacking the crop; but the young larvæ, which were only half-grown when the sod was broken, attack the crop of the following year because there is nothing else on the land for them to eat. It has been found that barley and rye are less attacked than any others of the small grains, and also that clover is little injured. These early-maturing grains are, therefore, better suited as a crop for the second season after sod, because the land can be plowed immediately after they are harvested, and thus the pupæ and the freshly formed and still soft beetles are disturbed in their pupal cells, and many of them destroyed. Clover may be sowed in spring with either of these crops, and either plowed down with the stubble in September, or left on the land until the following autumn, when the land should be plowed as soon as there is a good growth after the first cutting. A short rotation in which land is not left in grass for more than two years will to a large measure prevent the ravages of wireworms.

"Prof. S. A. Forbes recommends plowing down sod in autumn and sowing to fall wheat or rye, with clover on these in the spring, the clover to be left for two years, and then followed by corn or roots. Some have obtained good results in clearing land of wireworms by plowing twice in the same autumn, the first time in August, the land to be well harrowed a week later, and then cross-plowed in September."

In this particular case, if the mangels are sown on the land, we would advise fall plowing after the crop is removed, to destroy as many of the pupæ as possible.

## THE DAIRY.

### Ropy Milk.

Every season finds many dairymen and users of milk perplexed over a ropiness or slimy character in the milk. An article by John Golding, F. I. C., T. C. S., in the March issue of the Journal of the Board of Agriculture, deals rather exhaustively with this subject. Mr. Golding says, in part:

Of all the abnormal changes which sometimes take place in milk, one of the most common and persistent is what is called "ropy" or "slimy" milk. Such milk, when poured from a jug, has a rope-like form. A spoon or wire dipped into the milk and then taken out draws after it thread-like strands sometimes over a yard in length. Such an abnormal appearance naturally alarms the consumer, while the persistence of the trouble frequently causes great loss to the milk vendor.

**Cause of Ropiness.**—The appearance of ropiness in the mixed milk of a herd several hours after milking, is due to the growth of bacteria, which, as a general rule, gain access to the milk after it has left the udder of the cow, though in a few instances they may exist in the udder before milking.

**Garget Milk.**—Ropiness is sometimes observed in milk from individual cows, notably in cases of inflammation of the udder. In such cases the cause may be either bacterial or non-bacterial. If the ropiness does not increase as the milk is kept, and cannot be propagated by transference into another sample of fresh milk, it is probably due to the presence of fibrin and white corpuscles from the blood, which form masses of slimy material in the milk. Such milk is known as garget milk, and it is unfortunate that the term "ropy" should be applied to it, since this use of the word gives rise to the common impression that all ropy milk is unwholesome.

Although garget milk may not cause other milk to become ropy, organisms are present in the milk which may lead to infection being spread from one cow to another by the hands of the milker. For this reason, prompt attention should be given to all cows suffering from this disease, and all sources of infection avoided.

An organism (*Bacillus Guillebeau*) which makes milk ropy has also been found in Switzerland in the inflamed udders of cows.

**Not Injurious to Health.**—With the exception of that caused by *Bacillus Guillebeau*, which comes from diseased udders, ropy milk caused by bacteria is not injurious to health, certain kinds of ropy milk being much prized in some countries as an article of diet, but its mechanical condition and appearance are so abnormal that it must be quite an acquired taste. Ropy whey (made from *Bacillus lebanis*) has been given to pigs, and found they apparently preferred it to ordinary whey.

#### SUMMARY.

**Causes of Ropiness.**—1. Ropiness in the mixed milk of a dairy herd, which increases on allowing the milk to stand, is due to the growth of bacteria.

2. Milk which is ropy at the time of milking may or may not be due to the growth of bacteria; but, though it may not cause an outbreak of this trouble, it should not be used for food, and should be regarded as more harmful than ropy milk proper.

3. In cases of garget or inflamed udders, special care should be taken against the infection of other cows by the hands of milkers, etc.

4. With the exceptions mentioned in 2 and 3, ropy milk is wholesome, and does not endanger public health.

5. The organism may come from water used for washing dairy utensils, etc., or from water in which dairy cows have been standing, or which has otherwise been splashed on their flanks or udders.

6. The trouble may also come from dust and straw, as well as from the butterwort and probably other plants.

7. Some forms of ropy milk organisms grow at the temperature of cooled milk.

8. Wooden vessels tend to encourage the persistence of the trouble, as do also dilute solutions of soda, if these are not freshly made from boiling water.

9. Most of the organisms require air for their growth, and the cream layer, therefore, tends to go ropy before the lower layers of the milk.

10. Some forms of ropy cream make butter which quickly goes rancid; but, on the other hand, other organisms are prized as "starters" in the making of Edam cheese.

**Tests to be Used in Cases of Ropiness in Milk.**—1. It should first be ascertained whether the outbreak is caused by bacteria, by adding a few drops of the affected milk to some sound new milk in a clean glass. This should then be placed in a warm room and kept loosely covered, to prevent dust getting in. The time taken for ropiness to appear should be noted.

2. The cows should be examined, and samples taken in clean glasses from the milk of individual cows and from the mixed milk after straining, cooling, etc. The time taken in each case for ropiness to appear should be noted.

3. To a glass of clean, fresh milk from another source should be added some of the water used for washing the churns and pails, and to another glass some of the water which the cows drink. A glass of this milk should also be left exposed in the dairy.

The results of these experiments may indicate the source of the trouble, but it is well to adopt the following practical measures:

**Prevention of Ropy Milk.**—1. As water is a frequent source of the trouble, special care should be taken in washing the milking pails, strainer cloth, etc., after each milking. When thoroughly clean, these should be well scalded, and should not again be rinsed with cold water. It is well to scald the pails, etc., shortly before milking.

2. Great care should be taken to see that no water is splashed into the milk in the process of cooling, etc.

3. As dust is sometimes a carrier of these germs, the pails, etc., after washing, should be kept upside down, and the milk, when it is in the pails, should be kept covered as much as possible.

4. The rooms where the milk is kept should be well cleaned. Wooden, cement or stone floors may be cleaned with a mixture of five parts sulphuric acid to ninety-five parts of water, but care should be taken that this does not get on the clothes of the person using it.

5. Wooden vessels should not be used, as they may persistently retain the ropy-milk organisms. It is not well even to use wooden troughs for washing milking vessels, but when they are used special care should be taken to clean them on all such occasions.

6. Dilute solutions of washing soda favor the growth of the organism, and it would be better to use sodium hypochlorite or some other cleanser and disinfectant in cases of an outbreak of ropy milk.

7. Straw has been shown to hold ropy milk organisms, and the custom of wiping the udders of the cows with a wisp of straw before milking is very bad. After washing their hands for milking, milkers should not handle straw or fodder, nor should any such material be brought into the cow-byre just before or during milking.

8. The cows should be kept clean and the udders should be washed and disinfected with a very dilute solution of formalin, especially if the cows have been standing in dirty water or wading through mud.

9. Ponds and streams should be fenced off so that the cows cannot wade in them.

10. On the first indication of an outbreak of ropy milk, the cows should, if possible, at once be turned into another pasture.

### Low Overrun.

I am sending you a copy of the summary of the business of a dairying company of which I am a patron. I would like to have your opinion whether the company is dealing fairly with its patrons. They make 105 pounds butter out of 100 pounds butter-fat. Is not that too little? If so, could redress be had, and how? If there is anything else wrong, please give us the advantage of your knowledge. M. H.

Taking the figures as they appear on the statement of the Lake Verd Dairying Co., it would appear:

1. That the overrun is about 5 per cent. In general creamery practice, this is about 10 per cent. too low.

2. There are several factors which might bring about a low overrun: (a) Over-reading the tests. This would credit the patrons with more fat than they really delivered to the creamery, and would make the price of a pound of fat appear low, and show an apparent low overrun, although the usual quantity of butter and, therefore, the usual overrun, may have been made from the actual fat delivered. If more fat was credited to the patrons than they delivered, then the total fat divided into the money received for the butter would of necessity make the price lower. In other words, the patrons, although apparently paid a low price per pound of fat (and a low overrun shown on the statement), may have really received all the money from a normal overrun, as they would each be allowed for more fat than they delivered. (b) Composition of the butter. On a basis of 5 per cent. overrun, if all other conditions necessary to a normal overrun were observed by the buttermaker, the butter would contain only about 3 or 4 per cent. of moisture, instead of the usual quantity of from 12 to 13 per cent. If such is the case, then each 100 pounds of butter would contain about 95 pounds of milk-fat, while average butter contains about 85 pounds of milk-fat to the 100 pounds of butter, so that the composite sample bottle uncorked would allow evaporation of moisture, and, therefore, the milk and cream tests would be too high.



(d) Excessive mechanical losses through inefficient skimming, carelessness or otherwise.

3. According to the figures in the statement, it cost about 5 cents per pound to manufacture the butter, which seems rather high, when the buttermaker, secretary and salesman received only \$100 for his services.

Why not ask this officer for an explanation, with reference to the reasons for the low overrun?  
F. H.

### Breeding Heifers Too Young.

Malcolm H. Gardner, Superintendent of American Holstein Advanced Registry, in his report of cows making records between February 20th and March 2nd, 1912, states that it has been widely taught in the dairy press that, to get the best results from dairy cows, it is needful to bring the heifers into profit early, in order to firmly fix the dairy habit, having them freshen at two years of age, or even a trifle younger. It has also been taught that young heifers should be fed largely on coarse feed, so as to develop the capacity of the stomach and to avoid the inducing of a fleshy habit of body. Mr. Gardner has never given adhesion to either of these doctrines, because his experience has shown that dairy habit is a hereditary breed characteristic that will show itself if it is born in the animal, and that a heifer should be so fed and so handled as to obtain the best possible physical development of the body at the time the strain of motherhood is placed upon her.

Even if properly fed for the most uniform bodily development, this cannot be done if the heifer is allowed to freshen too young; and in his estimation it would be wise for Holstein-Friesian breeders to increase the average age of heifers at first calving. The average age for 1228 heifers tested during the last fiscal year was 2 years 1 month 18 days; and he thinks it would have been better for both the heifers and the results if the average age had been 28 months.

From the report referred to, it would seem that Mr. Gardner's beliefs were not unfounded, for the two leading senior two-year-olds, K. P. Lady and K. P. Little Lady Clothilde, each heifer freshening for the first time at a little past 33 months of age, produced, respectively, 21,347 pounds of fat from 399.2 pounds of milk in 7 days, 82,969 pounds of fat from 1,959.9 pounds of milk in 309 days, and 20,874 pounds of fat from 440 pounds of milk in 7 days, 81,586 pounds of fat from 1,972.7 pounds of milk in 30 days. These are two fine records of heifers which did not commence work at the pail until nearly three years of age. The best aged cow in this report gave 26,899 pounds of fat from 582.7 pounds of milk in 7 days. The senior four-year-old class was headed by a yield of 23,943 pounds of fat from 625.6 pounds of milk in 7 days, while the best junior four-year-old gave 22,048 pounds of fat from 600 pounds of milk in 7 days. Senior three-year-olds were headed by 21,382 pounds of fat from 562.4 pounds of milk in 7 days, and the junior three-year-olds 19,675 pounds of fat from 309.2 pounds of milk in 7 days.

From this comparison, it will be seen that the records of the two-year-olds mentioned were very high. There is no doubt but that breeding heifers too young tends to injure their constitution and vigor. John McKee, of Norwich, Ont., ex-president of the Canadian Ayrshire Breeders' Association, before the last annual meeting of that Association, discouraged the practice of breeding heifers too young, and gave as his belief that they should not drop their first calves until from two and one-half to three years of age. We must not sacrifice size and constitution if we wish to retain heavy producing ability in coming generations of our dairy cattle. Production at the expense of constitution cannot be tolerated, and the time when heavy milking and forcing is most injurious to the cow is during her first period of lactation, especially if this comes when she is very young. It is important that the dairy heifer grows large and strong; even a little flesh on her is not objectionable, and will be of value to her during the first milking period. Give the heifer a chance to develop before calling upon her to assume her work in the dairy herd.

### American Silo Argument.

It is said that the musicians of a brass band are unable to play in the presence of a man sucking a lemon, it makes their mouths water so much. A semi-circle of cows gathered around a silo, when the silage is being served, will, it is said, present a similar spectacle. They remember the—to them—delicious flavor of the silage; its odor titillates their nostrils, and the water fairly drips from their mouths. Herein is further proof of the value of silage in cattle-feeding. A feed which thus stimulates the appetite of the cows can hardly be otherwise than excellent for them.—[University Farm Press News.]

Investigations at the Michigan Experiment Station show that there is little, if any, difference in the amount of butter-fat in the milk of a heifer and of a mature cow. Somebody's imagination would seem to have afforded the only foundation for the popular belief to the contrary.

## APIARY.

### Preparation for the Honey Season

A good many beekeepers are inclined to work their bees for all they are worth, in order to get as large a crop of honey as may be had, and then give them a sort of protection for winter, without knowing whether they will do well after that, and then think that there is nothing to be done with them till the following spring. This is certainly a big mistake.

If the beekeeper is to accomplish the best results with his bees, it will be necessary for him to work in their behalf the greater part of the year, and, of course, this includes a part of the winter months. There are a good many things to get ready for next season's crop, such as sections, shipping cases, etc.; and one thing the beekeeper should know and feel grateful about is that he can do this work when there is nothing to be done with the bees, and not be obliged or compelled to do that work at the time the bees are storing honey or swarming. With a very large apiary to care for, the beekeeper has on his hands all that he can do, and often more. Then, if he has prepared his supplies and other work in advance, he is able to manipulate his bees for best results.

All hives wintered outdoors should be levelled by the use of a spirit-level each spring and fall, and, though this may have been done before, the beekeeper will find that his hives have settled considerably and are out of straight line, as the result of the overweight of the previous season's heavy supers.

If the beekeeper receives one or two bee journals, he will remark, in the fall of the year, that all bee-supplies manufacturers and dealers are offering a good discount on early order of supplies, such as hives, supers, sections, etc. This is a great advantage to the beekeeper in several ways. He can secure his supplies then at less cost, and have them in time to be put up during the winter months for next season's use. The sections should be folded, and a full sheet of foundation fastened in every one, and then placed in the supers all ready to be put on the hives at a moment's notice.

It has been well proved that full sheets of extra thin comb foundation are better than starters and half-sheets in producing fancy or a good grade of section honey. Furthermore, it is work saved for the bees.

The first supers put on the hives should contain two or three bait sections, put in the center of the super. The bait sections should be clean, as bees will not work on dirty sections. All supers should be piled one on top of the other and covered, so as not to allow any dust, rats or mice to get in and soil the sections. If the supers do not pile on each other close enough, a few thicknesses of paper between each two or three supers will close up all the cracks.

All new hives and hive parts, such as covers, bottom boards and supers should be put together during the winter months and painted; and if the beekeeper has a stove in his workshop, this kind of work can be done very easily. The beekeeper should provide a few drawers for his working bench, or have a cupboard in his workshop, and whenever he runs across anything interesting or valuable illustrations in the bee journals that he desires to mark, he can lay them out on the shelf or in the drawers, where they will be at hand when wanted for consultation.

If the beekeeper desires to increase his apiary, he should make a few hive stands and wintering cases. Even shipping cases can then be put up without any great trouble. In fact, everything should be done during winter, so that no work of this nature will have to be done when spring comes.

The beekeeper, having done his work during the slack season, will place himself in a position to pay more attention to his bees when swarming time comes or when harvesting his crop of honey; and, besides that, having all his supplies ready, he will be able to give his bees more room, and, therefore, he will possibly secure a bigger yield of honey.

When painting his hives, he should never use other than the best quality of paint. Ready-made paint is not very good; it soon dries up and peels off. The conscientious apiarist will buy some good grade of white lead and oil, and mix the paint himself. By so doing, he will not be obliged to go over his work twice in one season. Most beekeepers prefer a good grade of white lead to anything else, and the mixing of it is not difficult.

For the reading of bee journals, the long winter evenings are an excellent time, for then a beekeeper has time to read and think.

A last warning: Don't wait until the warm weather comes, but lay your plans now, and do your work according to them; and when the needs of next season's harvest manifest themselves, you will not be in trouble as to the supplying for them.

J. O. BEAULUE.  
C. E. F., Ottawa.

## POULTRY.

### Incubators and Brooders.

Editor "The Farmer's Advocate":

So much has been said for and against the use of incubators and brooders, that, for the benefit of amateurs in the poultry business, I would like to give my experience with them.

I started in the poultry business with all the land I wanted, a 120-egg hot-water incubator, and a few standard-bred Barred Rock fowl. For the first hatch, I had the incubator set in an upstairs east room, heated in the daytime by the pipe from the cook stove, and ventilated by an east window raised from the bottom. To prevent draft, I placed a screen in front of the window. I found that it was utterly impossible to regulate the temperature of the egg-chamber, for, although the makers of the machine claimed that outside conditions did not affect the inside temperature, yet, I found that in the daytime the temperature would be away up, and at night away down. As a result, my first hatch was almost a failure.

The next hatch I moved the incubator to a west room, unheated, but lighted by a west window. The temperature was not so hard to control, but even with the shade down I found that the warm afternoon sun materially affected the temperature in the machine. I next moved it into the hall at the head of the stairs, where it was unaffected by either stove or sun heat to any extent. Here the temperature was easy to control, but, although the eggs were high in fertility, and those set under hens at the same time as the incubator hatched well, yet the incubator hatch was only half what the hens hatched.

I concluded that either the machine was no good or it was still not in the right place. On observation, I noticed that I had the machine sitting almost directly above the door leading from the living-room downstairs to the kitchen, and that every time the door was shut it jarred the floor enough to also jar the incubator; also, that, although the machine was not supposed to require a moisture pan, yet the egg-shells appeared to be very dry and brittle. I noted these observations, and the next spring placed the machine at the other end of the hall, where the closing of the door below jarred it but slightly, and where it was affected by neither stove nor sun heat. Below the egg tray I placed an agate pie pan filled with water, or buttermilk, when I had it. This I left there until the last time I took the egg-tray out before the chicks hatched. I found here that conditions were ideal. Every hatch the chicks came out, if anything, better than from eggs set at the same time under hens. The third hatch that season was 105 good healthy chicks from 123 eggs. I have always set the machine in the same place since, and used the moisture pan; and, always when the eggs were hatchable, they hatched, and the chickens did well when given a fair chance.

Now, as to brooders. My advice to the amateur is don't buy a brooder until you know what it will do. I sent for one, supposed to be, or, rather, advertised to be, an A-1 machine, easy to operate and clean, and altogether desirable. It was about the first to come into this part of the country, and I knew nothing whatever about them, except what I had read. In due time the brooder arrived, and my troubles began. In the first place, it was large and heavy, so that it required two men to move it. It was awkward and hard to clean, and, unless in nice, calm, fine weather, it was impossible to heat it to the right temperature. The lamp, in spite of every care, would smoke, and the flues were hard to get at to clean. I used it two seasons, lost half my chickens experimenting with it, and finally consigned it to the rubbish heap.

I then tried the fireless brooder, of which considerable has been written, but for early hatches, in Eastern Ontario, there is too much labor in connection with the heating of it to make it profitable.

Finally, I purchased a hover and heater of a reliable make, with a regulator attachment. I put it in a large packing case turned on its side, boarded up the front of the box, and put a door and window in it; covered the case with common tar-felt paper, and set it in the yard, where it was exposed to all the elements of weather, including high winds and frost. The total cost was less than half what I paid for the first brooder. Out of 81 chicks put in it the first time, I carried through 73. In the highest wind the flame in the lamp scarcely flickered, and the regulator could be adjusted to look after the temperature in severe changes of weather. I may say that I have had no more trouble, and find that this hover in the homemade brooder raises more and healthier chicks than the best of hen mothers, besides which, they do not inherit the legacy which hens invariably bestow on their chicks, viz., the lice pest.

Of course, the brooder must be kept clean and



sanitary, but five minutes each morning will do the former, and a 50c. can of disinfectant will keep both the incubator and the brooder in a perfectly healthy condition for a season, if used according to directions. A POULTRY FANCIER.  
Carleton Co., Ont.

[Note.—Other poultry-raisers' experience with artificial incubation and brooding is solicited for publication in these columns.—Editor.]

### More Poultry Profits.

Editor "The Farmer's Advocate":

The many letters that have appeared in your valuable paper regarding winter eggs are very opportune, seeing this is the time to get the chicks hatched for next winter's layers. In the first place, what constitutes the poultryman's winter? I think all will agree when I say that from October until March is the hardest time of the year to produce eggs. It seems, to me, then, that the non-layer in these months has a big handicap to overcome, especially when she has to start in at 25-cent eggs, compared with from 45 to 50-cent eggs, the average price of hen fruit this winter.

Our experience has been that pullets make the best winter layers, but they must be matured before the cold weather sets in. This is one of the chief reasons why so many fail to produce winter eggs. The chicks must be properly fed from the time they are hatched. The cockerels should be sold at the broiler stage, when the most profit is to be made out of them. The pullets then get the full benefit of all the feed.

Housing and feeding are two essentials to winter-egg production. I believe that poultrymen are going to the extreme regarding curtain-front houses. There is no doubt a cold, well-ventilated house is preferable to a stuffy, warm one, but I believe a well-ventilated house in which it did not freeze would give the best results. We all know that horses and cattle take less feed in a warm stable than in a cold one. Why should not this rule apply to chickens, and surely, at the present price, feed is a consideration. The style of houses used on "The Farmer's Advocate" farm—Weldwood—appears to me to be a good one, with the exception of the straw loft; I would be afraid of this being a harbor for the poultryman's worst enemy, namely, hen lice.

Regarding feeding, I don't think hens need as much "fussing" as some imagine. We scatter mixed grain in the litter morning and night, and feed a mash at noon (not sloppy) composed of equal parts of corn, barley and oat chop, and a few handfuls of meat meal added. Hens should have access to grit and oyster-shell at all times, and a liberal supply of green food when possible. I find that hens work more diligently in litter spread thinly, and cleaned out once a week, than if it was spread deeper and left a longer period. We can readily understand how filthy the litter must become, comparing it with dropping boards. Probably some of the poultry diseases are started in this way.

We kept 160 hens and pullets throughout January and February. They laid a total of 1,147 eggs in January, and 1,444 eggs in February. Eggs sold in the two months, \$95; cost for feed, \$35; profit, \$60.

The results were not as good as I anticipated, still they show that there is a good profit in winter eggs. J. J. BERTRAM.  
Wentworth Co., Ont.

### A Profitable Flock.

Editor "The Farmer's Advocate":

I am very much interested in poultry and winter-laying fowl. From 57 Plymouth Rock hens I received, in the month of February, 69½ dozen eggs, getting from 28 to 33 cents per dozen for them. I feed them wheat or oats and barley mixed, and one hot mash per day, and plenty of milk to drink. I keep grit and oyster-shells before them all the time.

A SUBSCRIBER'S MOTHER.

Queen's Co., P. E. I.

## GARDEN & ORCHARD.

### Haldimand County Fruit Growers Organise.

Editor "The Farmer's Advocate":

That the County of Haldimand is awake to the fact that more fruit of a much higher quality can be produced from its orchards, is evidenced by the fact that those interested have organized an association, to be known as the "Haldimand Fruit Growers' Association."

A public meeting in the interest of fruit-growers was held in Brantford, on March 20th. There was a splendid representation from many parts of the county, showing the keen interest manifested by the many farmers engaged in the growing of fruit throughout the county.

Haldimand, being situated along the shore of

Lake Erie, is especially adapted to the growing of a superior quality of apples. Firmness of texture, high coloring and a good flavor, can be surpassed nowhere else in Ontario. This high standard of quality can doubtless be traced to the soil upon which the apples are grown being largely composed of moderately heavy clay, rolling, and well drained. There are many acres of fine orchard throughout the county, now being neglected, which only need the up-to-date methods of culture in order to make them produce a crop that will become one of the best-paying branches of farm work. It is through co-operation that these ill-cared-for orchards can be changed into veritable gold mines. Farmers learn more by seeing than hearing, so, when a man under the instructions of the Association is caring for his orchard and netting large returns, his neighbors very soon follow the same principles.

Thirty-six members have already been secured, which makes a splendid beginning, and, with careful management such an organization will mean great things for the county.

Haldimand Co., Ont. CHAS. F. HOWARD.

### Propping Fruit Trees.

Now that winter spraying and pruning are in full swing, the live question of tree-propping comes up for fresh discussion. Many and varied ways are used to achieve the end desired, namely, to protect against breaking the overloaded branches.

When we come to the discussion of this subject, there is one statement at the outset that may be made that has good sound judgment back of it, one which many orchardists support, and which clears away part of the argument of those favoring tree-propping. It is this: Trees that have been pruned each year as heavily as they should have been up to the time they come into bearing should seldom need to be propped. This looks like a sweeping statement; nevertheless, it is true. Where thinning of the growing fruit is not practiced, it will seem ridiculous. But every orchardist should thin out his crop and keep the fruit well back on the limbs to guard against wind bruises. He should thin to get even and market sized fruit. It is easier and quicker to thin out one thousand apples in June than to pick and market an extra one thousand undersized specimens in September or October. A better price will be obtained for fruit from trees that have had the fruit thinned and have been pruned back so that they can only carry an average crop. A tree that is pruned back so that its crop may be thinned out to an average size without wasting much time, under ordinary conditions, will give a fair crop each season, and not be termed a "shy bearer."

But there are trees which have not received this amount of care, and the question of the props advisable for use forces itself upon us. Many schemes are advocated that are valueless, many that are really good, but have some disadvantages, many that are of as big a hindrance as they are assistance, and a number that are really efficient.

Perhaps it may be easier to look at these in groups, and for that end they may be divided into three, namely:

Systems that use the tree's own branches to support the bearing limbs.

Systems that necessitate the use of permanent supports.

Systems that use movable supports.

The first group of systems has of late received much commendation, but is really one of the poorest. Theoretically, it looks like the finest idea that could be supported, and many who use it still advocate its adoption.

In these systems, the basis is tying the ends of branches taken from opposite sides of the trees, or tying, twisting or connecting in some way branches so that they form a ring around the tree and under the bearing branches. By these systems the prop is permanent. It grows with the tree (?) and once a tree has been prepared in this way it needs no further attention.

Now, against this system there are some very strong and reasonable arguments. If the branches are tied, then many branches are broken in tying them. Anyone who has ever tried to knot apple wood back six inches from the tip of the limb knows of this difficulty. Limbs that are snatched live but a short time, as a rule, and then trouble starts in many cases, because, if these limbs do not reach any size, which is seldom the case, they often carry back to the branches from which they are taken any disease that may have caused their death. The tying weakens them, leaving them open to the attacks of disease. There are other detrimental features attached to this system, and which will present themselves to you.

In tying the branches, we tend to cause a check in the sap flow. This is especially true, since, as the limbs grow, they tighten and when they tend to break is hindered in its work, and leaves it a part of its surface exposed to the

ly. It stands to reason that there will be a tendency toward a short life. It is inevitable that these branches will throw out shoots or suckers, and these must be pruned off, hence breaking for a time the bark surface where they sprung from, and in some instances the surface is permanently broken, checking sap flow. Then, too, these branches are shut off from a normal leaf service which all branches need, and they must be a good size to be of any value as props. The lack of leaf service puts them in a way of stunted growth. The twisting of these branches makes it necessary that they receive special attention when spraying, as they are the breeding places of many insect pests, and a constant menace as a harbor for tree disease germs. At pruning times, or when thinning and picking the fruit, these cross-growing branches are constantly in the way, and a great hindrance in getting about through the branches. This in itself is no small item.

In systems that use permanent supports, there are two most commonly used here: The screw-eye and movable cross-wire system. The screw-eye system is managed by taking a quantity of screw-eyes along when pruning, and screwing them into the branches at suitable intervals. As the tree grows, these eyes become firmly embedded in the tree, and, by stringing wires from one eye to another, the branches can be securely supported, and the wires removed after the crop is picked, should it seem necessary.

In the cross-wire system the same principal is used as in the screw-eye, only there are no eyes used, the wires being fastened to wide pieces of leather wrapped about the branches, and the position of the wires changed each season, as the weight of the fruit may suggest. Generally, the straps may be left right on the tree, and in the same place, for two or three seasons.

In systems that use movable supports, the center-prop method is perhaps the best, and has worked here with splendid success. A strong piece of 2 x 4 is stuck about 8 inches in the ground, but a short distance from the tree trunk, say 5 inches. The heaviest loaded branches are then attached to it by wire, using a strong strip of cloth or leather to tie the wire to the branch, and passing the wire over the top of the 2 x 4, the tip of which should be about three feet above the heavy-loaded branches. If care is used in attaching the first two branches on opposite sides of the tree, so that when they are tied the prop is away from the trunk about four inches, then there is no danger of scalding. This plan also has the advantage of steadying the tree considerably during heavy winds, thus lessening the number of windfalls. It works better on trees pruned open than on those pruned to a cone, though it gives good results in both.

The old way of propping up with poles, etc., is rather crude, and unless the prop is attached to the branch, is likely to drop when a wind is on, allowing the weight of the fruit to come suddenly on the branch, and the branch breaks. If it is a branch high up on the tree, it may take a few lower branches with it in its fall; so that, unless it is carefully handled, it is liable to work as much harm as good.

B. C.

WALTER M. WRIGHT.

### Disease in Potatoes from Europe.

Owing to the shortage of the potato crop this year, dealers in and growers of potatoes find it necessary to import large supplies for table and seed purposes from Great Britain, Ireland and other European countries. Bulletin 63, issued by the Dominion Experimental Farm, Ottawa, explains how Potato Canker has found its way across the Atlantic into Newfoundland with potatoes imported from Europe.

Potato Canker is a disease at present unknown in Canada. It is one of the most serious diseases known, affecting not only the farm lands on which potatoes are grown, but the disease is also directly injurious to the health of the consumer of affected potatoes. Boiling does not destroy the injurious properties. The disease is characterized by nonular excrecences which may often be larger than the tuber itself. These cankers affect the eyes of the potato, and are very small in the early stages. Any tubers found with smaller or larger outgrowths rising from where the eyes are situated should under no condition be used for seed or table purposes. The introduction and establishment of this disease would seriously compromise one of the most important agricultural industries of Canada, viz., potato-growing. Farmers and consumers should be exceedingly careful in using potatoes that may have been imported from Great Britain or the Continent of Europe. Suspect-looking tubers should be destroyed by fire, and not be thrown on the ground, as the disease, if present, will establish itself gradually in the soil.

For a full and detailed explanation in detail the character of the disease, and is available to any one who desires information for the same.

H. T. GUSSOW,  
Dominion Botanist.



**THE FARM BULLETIN.**

**The Lakeview Holstein Sale.**

The Holstein-Clydesdale sale, advertised for Monday, March 25th, by E. F. Osler, of Bronte, Ont., was a success in every way, so far as Holsteins were concerned. The big representative crowd that gathered for the occasion was essentially a Holstein crowd, and when the Clydesdale mares were brought out, although they were in the pink of condition, and a high-class lot, the bidding was low and slow, and everyone sold was taken away by the lucky purchaser for half the market value. It was generally conceded that the Holsteins, though only a portion of the herd, were one of the best lots ever sold by auction in Canada, and the prices obtained were fairly satisfactory. The adage that blood and breeding will tell was again proven in the splendid average obtained for the bulls. The cattle were in fine condition, the sale was splendidly conducted, the wants of the inner man were well looked after by an abundant supply of sandwiches and coffee, and everyone went home satisfied that Mr. Osler certainly knows how to do things. Following is the list of sales of \$100 and upwards:

**FEMALES.**

Bell Tensen Helena, born 1905; D. Baker, Waterdown	\$175
De Kol Imperial Duchess, 1903; M. Armstrong, Tillsonburg	175
Winnie R.'s Calamity Posch, 1905; M. Ryan, Toronto	240
Beauty Hark 2nd, 1905; H. Dymont, Dundas	150
Lakeview Bell Tensen, 1908; F. Brecken, Nelson	125
De Kol Mantell 3rd, 1906; D. Furniss, Oakville	155
Dirkje Pel Burke, 1906; Mr. Proctor, Port Nelson	230
Cecil Wayne, 1903; G. S. Henry, Oriole	105
Inka Sylvia 4th's De Kol, 1905; H. Breckon, Merton	285
Rose Rattler, 1910; J. Wilson, Jr., Oakville	290
Miss Greta Korndyke, 1906; F. Reavy, Palermo	200
Grace Wayne, 1901; G. S. Henry, Oriole	100
Almeda Leucke, 1904; W. Fox, Palermo	200
Dione Korndyke, 1906; M. Ryan, Toronto	225
Helena Seipkje, 1905; M. Ryan	275
Calamity Jane Duchess 2nd, 1901; M. Armstrong, Tillsonburg	155
Lakeview Imperial Duchess, 1908; Monro & Lawless, Thorold	125
Lakeview Sylvia, 1908; Mr. Roache, Bronte	170

**BULLS.**

Lakeview Sylvia De Kol, 1911; Mr. Inksetter, Copetown	120
Lakeview Imperial Duke, 1911; C. Slavin, Elmbank	110
Seipkje of Lakeview 2nd, 1911; W. J. Might, Britannia	170
Lakeview Hengerveld Rattler, 1911; R. E. Gunn, Beaverton	225
Lakeview Burke Fayne 2nd, 1911; Monro & Lawless, Thorold	175
Lakeview Count Cherryvale, 1911; L. A. Everitt, Vittoria	120
Lakeview King Inka's De Kol, 1911; J. Wilson, Jr., Oakville	165
Winnie R.'s Lakeview Count, 1911; Mr. Low, Woodstock	100
Lakeview Hengerveld Posch 2nd, 1911; Dr. Watson, Burlington	150

**CLYDESDALE MARES.**

Kate Cairne (imp.), foaled 1905; Sir H. Pellatt, Toronto	\$350
Lottie Halliday (imp.), 1907; Monro & Lawless, Thorold	370
Eva of Skinburness (imp.) 1907; Monro & Lawless	375
Milly (imp.), 1903; H. Mitchell, Niagara Falls	350

**The Macklin Holstein Sale.**

Despite unfavorable weather conditions, a large crowd gathered for the dispersion sale of the Elmdale herd of Holsteins, advertised by S. Macklin, of Weston, on Tuesday, March 26th. The cattle were a most attractive lot, many of them prize-winners at Toronto, and all in splendid condition. The bidding was spirited throughout, and the prices realized must have been in every way satisfactory. The 37 head sold, including several calves but a week or two old, and a number of others under one year, brought a grand total of \$8,116, or a general average of a little over \$165 each. The highest price, \$407, was paid for the four-year-old cow, Bell Posch, winner of first prize and junior championship at Toronto, a daughter of Schuiling Sir Posch, twice grand champion at Toronto, and went to the bid of the representative of Sir Henry Pellatt, Toronto, owing to the meagre system in vogue at the sale

for announcing the name and address of the buyers, we are unable to report them, but by far the heaviest buyers were Sir Henry Pellatt, of Toronto, and H. S. Logan, of New Westminster, B. C. Following is a list of all sold for \$100 and over:

**FEMALES.**

Bell Posch, born Nov., 1907	\$ 407
Retta Hengerveld Posch, 1908	250
Beauty De Kol Clothilde, 1902	350
Cora Pietertje Posch, 1907	320
Julia Abbekerk Posch 4th	230
Mol De Kol, 1900	100
Guillemette 2nd, 1902	235
Retta, Albino De Kol, 1904	230
Lillian Posch De Kol, 1906	300
Muriel Posch De Kol, 1907	300
Van Friesland Lady Inka, 1903	150
Madame De Kol, 1903	200
Grace Anneke De Kol, 1908	237
Nierope Netherland Bess, 1902	165
Bonnie Hienke, 1904	180
Manor De Kol Cora Grace, 1902	250
Pauline Pietertje Posch, 1909	150
Delta Gem	227
Manor Grace Canary, 1910	160
Bessie Canary, 1910 (twin)	160
Jessie Canary, 1910 (twin)	160
Grace Canary, 1911	100
Lydia Canary De Kol, 1911	130
Delta Queen, 1911	125
Lulu Canary, 1911	102
Grace Anneke Canary, 1911	112
Princess Canary De Kol, 1910	127
Pauline Canary, 1911	127
Millie Canary, 1911	100

**BULLS.**

Prince Posch Schuiling, 1909	\$ 165
Coral's Brightest Canary	195

**Fairview Holstein Sale.**

The public sale of pure-bred Holsteins at "Fairview Stock Farm," owned by Fred Abbott, Harrietsville, Ont., on Thursday, March 28th, attracted a large crowd, including a number of buyers outside of Middlesex County. The cattle were in excellent breeding condition, and bespoke careful management for business at the pail. Bidding, under the direction of Col. Welby Almas, was spirited, and though no sensational figures were drawn, the afternoon's selling of 64 head aggregated \$6,125. The 36 females averaged \$136.25, and 28 calves and young bulls \$43.57. The young stock, male and female, was decidedly promising, and not a few plums were secured at reasonable figures. Several youngsters that made their advent in the stalls as the sale progressed, in a few moments turned up in the sale-ring, and sold for good figures. The offerings bringing \$100 and upwards were as follows:

Cornelia, born, 1903; W. W. George, Crampton	\$ 120
Belle Dewdrop 3rd's Beauty, 1908; G. Bethune, Ryckman's Corners	103
Axie De Kol of Riverside, 1901; H. Lipsit, Straffordville	173
Cornelia 2nd, 1905; G. Bethune	178
Axie Posch Daisy, 1908; Chas. Abbott, Belmont	135
Maysie's Pietertje, 1908; Chas. Locke, St. Thomas	188
Miss Phoebe De Kol, 1908; J. H. Taylor, Scotland, Ont.	175
Pietertje De Kol Maid, 1908; G. Bethune	143
Lady Xantha Queen, 1908; W. C. Thompson, Orwell	180
Lady Boutsje De Kol, 1907; H. Holtby, Belmont	200
Cornelia 2nd Boutsje, 1907; Emmerson Abbott, Gladstone	165
Lady Boutsje De Kol 2nd, 1909; Emmerson Abbott	280
Axie De Kol Beauty, 1910; A. W. Venning, Belmont	100
Axie De Kol Maid, 1910; W. W. George	123
Axie Posch Veeman, 1910; Andrew Irwin, Dorchester	180
Cornelia 2nd De Kol, 1910; W. W. George	143
Miss Axie Posch De Kol, 1910; N. McGugan, Frome	155
Miss Axie De Kol, 1911; D. Campbell, Komoka	123
Lady Axie De Kol; B. Smith, Springford	100
Lady Idaline Veeman, 1911; Fred Carr, St. Thomas	138
Maysie Pietertje Teake, 1910; W. W. George	123
Phoebe Teake De Kol, 1910; Andrew Irwin	135
Pietertje Teake De Kol, 1910; M. L. Haley, Springford	158
Daisy Teake Axie, 1910; D. Campbell	133
Colantha Johanna Queen; 1910; John Arbogast, Sebringville	170
Colantha Johanna Belle, 1910; Emmerson Abbott	210
Maysie's Pietertje 2nd, 1911; D. Campbell	138
Cornelia Axie De Kol, 1911; Chas. Locke	100
Axie Veeman De Kol, 1911; Fred Carr	110

**O. A. C. School Graduates.**

The total attendance at the O. A. C. Dairy School for 1912 was larger than for 1911, but about the same number wrote on the final examinations, held March 20th, 21st, and 22nd. This year there was a change in the method of preparing papers, as the Hon. Minister of Agriculture for the Province, Jas. Duff, requested that the Dairy School in connection with the O. A. C., and the Eastern Dairy School, at Kingston, would give the same course of theoretical and practical instruction as far as possible, in order that graduates of the two schools should be on the same basis. This has become necessary, since the legislation of 1909 requires all chief butter and cheesemakers of the Province to hold a certificate of qualification on and after Jan. 1st, 1911.

Five out of the eight papers for final examinations were prepared jointly by the examiners at the two schools, so that the two classes wrote on the same papers on five subjects. It is altogether likely that the other three, Bacteriology, Chemistry, and Miscellaneous, will be included next year. Cheese and buttermakers are taking a greater interest in the Dairy Schools since the passing of "The Dairy Products Act" of 1909, requiring certificates. As the course is one of twelve weeks, during which the whole time and attention of the students are concentrated on dairy matters, students who are able to pass the theoretical and practical examinations have a good training in dairy work. If they have one or more year's factory experience before taking the factory course, which is strongly advised, the graduates of the Dairy Schools ought to be in a better position to maintain and improve the quality of the Dairy Goods made in Canada, than those who have not taken the Dairy Course.

The following is the Proficiency List for Factory and Farm Dairy Students:

Rank.	Name.	P. O. Address	Marks Obtained. (Max. 1,200)
1.	H. Cotton,	Allanburg, Welland Co., Ont.	1,018
2.	R. W. Brown,	Attercliffe, Lincoln Co.,	994
3.	G. R. Smith,	Alymer, Elgin Co., Ont.	961
4.	F. A. Scott,	Glasgow, Scotland	960
5.	J. McKenzie,	Clifford, Wellington Co.	922
6.	E. Youse,	Delhi, Norfolk Co., Ont.	907
7.	A. Rogers,	Leesboro, Middlesex Co.	888
8.	T. Macdonald,	Molesworth, Perth Co.	870
9.	G. VanCamp,	Burketon, Durham Co.	854
10.	W. Durnan,	Hilton, Halton Co., Ont.	831
11.	C. Lackner,	Chesley, Bruce Co., Ont.	819
12.	J. S. Balfour,	Guelph, Wellington Co.	810
13.	A. H. Hurst,	Eversley, York Co., Ont.	796
14.	P. Carnochan,	Palermo, Halton Co.	795
15.	A. Neeb,	Brocksden, Perth Co., Ont.	790
16.	J. A. Hill,	Delaware, Middlesex Co.	786
17.	J. A. Sheehan,	Hamilton, Wentworth Co.	784
18.	E. J. Underhill,	Guelph, Wellington Co.	767
19.	A. Imlay,	Lawrence Sta., Elgin Co.	765
20.	J. H. Conway,	Harrington, Oxford Co.	754
21.	W. Owen,	Uptergrove, Ontario Co.	673
22.	H. Shepherd,	Nelson, Halton Co., Ont.	638
23.	J. L. Hammond,	Hickson, Oxford Co.	632
24.	W. A. Coleman,	Underwood, Bruce Co.	611
25.	W. Greenwood,	Strathroy, Middlesex Co.	566
26.	C. F. Runge (1),	Harold, Hastings Co.	524
27.	A. E. McNichol (2),	Dunnville, Haldimand Co., Ont.	493

**FARM DAIRY CLASS.**

Rank.	Name.	P. O. Address	Marks obtained. (Max. 1,000)
1.	R. J. Hastings,	Guelph, Wellington Co.	814
2.	W. Duncan,	Vernon, B. C.	524
3.	W. Adams,	Quebec, P. Q.; Practical examinations only (Max., 400)	334

(1) Will be required to pass supplemental examinations in written Buttermaking and Milk-testing.  
 (2) Will be required to pass supplemental examinations in written Cheesemaking and Dairy Bacteriology.

**Presentation to Dr. Rutherford.**

A fitting tribute, on the occasion of his retirement from office was made to Dr. J. G. Rutherford, late Dominion Live-stock Commissioner and Veterinary Director-General, when the members of his staff, in token of their regard and esteem, presented him with a beautifully illuminated address and a purse of \$1,200 in gold. Two hundred and fifty names have been inscribed on the margin of the address as contributors.

**The Book of Alfalfa.**

"The Book of Alfalfa" arrived O. K. Thanks. According to Peter McArthur, I should have had this alfalfa book two years ago, and have made preparations for seeding down to alfalfa last year. If farmers only knew the worth of this alfalfa book, there would be more orders coming in than there are. E. H. TOLL.  
 Kent Co., Ont.



## THE CANADIAN BANK OF COMMERCE

ESTABLISHED 1867

Capital, paid-up, \$11,000,000.  
Rest, \$9,000,000.

The Canadian Bank of Commerce extends to farmers every facility for the transaction of their banking business, including the discount or collection of sales notes. Blank sales notes are supplied free of charge on application.

Accounts may be opened at any branch of the Canadian Bank of Commerce to be operated by mail, and will receive the same careful attention as is given to all other departments of the Bank's business. Money may be deposited or withdrawn in this way as satisfactorily as by a personal visit to the Bank.

## MARKETS.

### Toronto.

At West Toronto, on Monday, April 1st, receipts of live stock numbered 91 cars, comprising 1,839 cattle, 422 hogs, 105 sheep, 72 calves, and 5 horses; quality medium to good; trade slow; no export buyers. Best heavy steers, \$7 to \$7.40; butchers', 1,100 lbs. \$6.50 to \$6.90; good to choice butchers', \$6.25 to \$6.50; mediums, \$5.60 to \$5.90; common, \$5.20 to \$5.40; inferior, \$4.50 to \$5; cows, \$3.50 to \$6; bulls, \$4 to \$5.70; milkers, \$40 to \$60; calves, \$4 to \$9 per cwt. Sheep, \$5 to \$6.50; yearlings, \$7 to \$8.50; spring lambs, \$4 to \$8 each. Hogs, \$8 fed and watered; \$7.65 f. o. b. cars.

#### REVIEW OF LAST WEEK'S MARKETS

The total receipts of live stock at the City and Union Stock-yards last week were as follows:

	City.	Union.	Total.
Cars	170	232	402
Cattle	2,217	8,345	5,562
Hogs	4,972	3,903	8,875
Sheep	257	62	319
Calves	528	67	595
Horses	—	249	249

The total receipts at the two markets for the corresponding week of 1911 were as follows:

	City.	Union.	Total.
Cars	212	165	377
Cattle	2,795	2,643	5,438
Hogs	5,248	787	6,035
Sheep	1,014	2,068	3,082
Calves	415	48	463
Horses	8	123	131

The combined receipts of live stock at the two markets show an increase of 25 carloads, 124 cattle, 2,840 hogs, 132 calves, and 118 horses; but a decrease of 2,763 sheep, compared with the same week of 1911.

Receipts at both yards were fairly large, especially at the Union yards, where on Monday there were 124 carloads, all told. The quality of the cattle was the best of the year thus far, there being more good to choice, well-finished animals, than at any two previous markets this winter. There were buyers from Montreal, Ottawa, Hamilton, Chicago, and one or two points in Northern Ontario, besides all the local abattoirs and wholesale butchers being represented. Trade was fairly good, but none too active, and prices were barely steady, outside of those bought for the Easter trade. The demand for Easter beef was not as great, nor were the prices paid as high as in some previous markets. This may be accounted for in that all classes of cattle have been higher this winter than for many seasons.

Exporters.—During the week, about 300 steers were bought for export, averaging 1,250 lbs. each, at prices ranging from \$6.75 to \$7.25, with one or two fancy lots at \$7.35. The heaviest and best two loads of steers, weighing 1,300 lbs. each, were bought by the Harris Abattoir Co., of Toronto; and H. M. Levinoff, for the Montreal Abattoir Co., each firm getting one load at \$7.40 per cwt., for Easter purposes. Geo. B. Campbell bought 200 steers for export, weighing from 1,150 to 1,300 lbs. each, at \$6.75

to \$7.20, or an average of \$6.96 per cwt., for the Liverpool market. The Swift Company, and the S. & S. Co., of Chicago, bought about another 100 steers, at about the same prices. There were many cattle of as good quality and weights bought for local killing, at as high prices as for the exporters.

Butchers.—Easter cattle sold at \$7.25 to \$8.55, but only two brought the latter price, and they were bought for the Jewish trade. Not more than 12 cattle sold over \$8 per cwt. Best steers, 1,100 to 1,200 lbs., sold at \$6.75 to \$7; prime butchers', 1,000 to 1,100 lbs., at \$6.50 to \$6.75; loads of good, \$6 to \$6.25; medium, \$5.60 to \$5.90; common, light steers and heifers, \$5 to \$5.50; inferior, \$4.50 to \$4.90; cows, some Easter quality cows sold at \$5.60 to \$6; good cows, \$4.75 to \$5.50; medium cows, \$4 to \$4.50; common cows, \$3 to \$3.75; bulls, \$4 to \$5.50.

Stockers and Feeders.—Four or five loads changed hands during the week. One load of feeders, 850 lbs., sold at \$5.20; one load of stockers, 750 lbs., sold at \$4.80 to \$5.10. These are average quotations for such steers as are being bought for feeding purposes at present.

Milkers and Springers.—The trade in milkers and springers was dull, on account of their being little or no demand from Montreal and Quebec. The local demand also has not been as great, and the quality of the cows offered, as a rule, has been medium, with few of choice quality. Prices during the week ranged from \$30 to \$65, with few reaching the latter figure.

Calves.—Receipts have been larger, but the quality of many of them was poor. For instance, one commission firm sold on Tuesday 28 "bobs," at \$2.50 each, and 28 calves, 138 lbs. each, at \$7.10 per cwt. Easter quality new-milk-fed calves are worth \$9 to \$10 per cwt., but there are few of this kind coming forward. The general run of prices during the week was \$4 to \$8 per cwt.

Sheep and Lambs.—The market for sheep and lambs was firm, that is, for those of good quality. Ewes sold from \$5 to \$5.75, and \$6 was paid for a few selected lots; rams, \$4 to \$4.50; lambs, yearlings, \$6.50 to \$8.50; spring lambs, of which there are a few coming forward, sold at \$4 to \$8 each. Extra quality spring lambs that will dress 40 lbs., are worth \$9 to \$10 each.

Hogs.—Receipts were not large enough to supply the demand, and prices kept advancing all week. Packers inform us that hogs are too high for export purposes, and that they find it difficult to get enough to supply the local or home demand for fresh pork, the consumption of which has increased, on account of the high prices of beef. Hogs, selects, fed and watered at the market, \$8.15, and \$7.80 to drovers, at country points, for hogs f. o. b. cars.

Horses.—Trade in horses at all the different sale stables has been inclined to be slow, with prices lower, judging from the different sales we have attended, that is, for the bulk of horses offered. Extra quality, of course, brings extra prices. At the Union Horse Exchange, Union Stock-yards, there were 135 horses on sale, and 65 only were sold. There were many buyers from all over Western Ontario, but the prices asked were too high to suit many of the buyers. The average run of prices was as follows: Drafters, \$175 to \$225; general-purpose, \$150 to \$200; express and wagon horses, \$160 to \$190; drivers, \$100 to \$175; serviceably sound, \$25 to \$75.

#### BREADSTUFFS.

Wheat.—No. 2 red, white or mixed, 95c. to 96c., outside points. Manitoba wheat—No. 1 northern, \$1.13½; No. 2 northern, \$1.10½; No. 3 northern, \$1.06½, track, lake ports. Oats—Canadian Western, extra No. 1 feed, 50c.; No. 1 feed, 49c.; lake ports; Ontario, No. 2, 45c. to 46c.; No. 3, 41c., outside points; No. 2, 47c., track, Toronto. Rye—No. 2, \$1 per bushel, outside. Buckwheat—68c. to 70c. per bushel, outside. Peas—No. 2, \$1.15 to \$1.25, outside. Flour—Ninety-per-cent Ontario winter wheat flour, \$3.95, seaboard. Manitoba flour—Prices at Toronto: First patents, \$5.60; second patents, \$5.10; strong bakers', \$4.90 in put, in cotton. S. & S. Corn—American No. 3 yellow, all rail from Chicago, 75c., track, Toronto. Barley—For malting, 90c. to 92c.; (47 lb. test), f. o. b. 60c. to 70c.

#### HAY AND MILLFEED.

Hay.—Baled, car lots, track, Toronto, \$16 to \$16.50 per ton for No. 1; No. 2, \$14 to \$15.

Straw.—Baled, car lots, track, Toronto, \$8.50 to \$9.50.

Bran.—Manitoba bran, \$25 per ton; shorts, \$27; Ontario bran, \$25, in bags; shorts, \$27, car lots, track, Toronto.

#### HIDES AND SKINS.

E. T. Carter & Co., 85 East Front street, have been paying the following prices: No. 1 inspected steers and cows, 12½c.; No. 2 inspected steers and cows, 11½c.; No. 3 inspected steers, cows and bulls, 10½c.; country hides, cured, 11c. to 11½c.; green, 10c. to 10½c.; calf skins, 12c. to 15c.; sheep skins, \$1 to \$1.40; horse hides, No. 1, \$3.25; horse hair, per lb., 33c. to 35c.; tallow, No. 1, per lb., 5½c. to 6½c.

#### COUNTRY PRODUCE.

Butter.—Market steady; prices firm. Creamery pound rolls, 37c. to 39c.; creamery solids, 35c.; separator dairy, 34c. to 35c.; store lots, 32c. to 34c.

Eggs.—Case lots of new-laid are selling at 24c. to 25c.

Cheese.—Market firm; 17c. for large, and 17½c. for twins.

Honey.—Market unchanged; extracted, 13c.; combs, per dozen, \$2.50 to \$3.

Beans.—Market firm. Broken lots sold at \$2.45 to \$2.55 for primes, and \$2.60 to \$2.70 for hand-picked.

Potatoes.—Market easier. Ontario potatoes, \$1.50 to \$1.53 per bag, car lots, track, Toronto; English, Irish and Scotch potatoes about the same; New Brunswick Delawares, \$1.60 for car lots, track, Toronto.

Poultry.—Receipts continue to be light. Fresh-killed chickens, 18c. to 20c. per lb.; hens, 14c.; turkeys, 20c. to 23c.

#### TORONTO SEED MARKET.

Following are the prices at which cleaned seeds are being sold to the trade: Alsike No. 1, per bushel, \$15 to \$15.50; alsike No. 2, \$13 to \$14; red clover No. 1, per bushel, \$15 to \$15.50; red clover No. 2, per bushel, \$13.50 to \$14.50; timothy No. 1, per cwt., \$18 to \$19; timothy No. 2, \$16 to \$17 per cwt.; alfalfa No. 1, per bushel, \$11 to \$12; No. 2, \$9.50 to \$10.50 per bushel.

#### FRUITS AND VEGETABLES.

Apples.—Spies, \$3.50 to \$5; Baldwins, \$3 to \$4; Russets, \$3.50 to \$4.50; Greenings, \$3 to \$4 per barrel. Onions, Canadian, per bag, \$2.50 to \$3; parsnips, per bag, \$1.25 to \$1.50; turnips, per bag, 40c. to 50c.; carrots, per bag, \$1.15 to \$1.25; cabbage, per barrel, \$2.50 to \$2.75; beets, per bag, 75c. to \$1.

#### Montreal.

Live Stock.—In the local market supplies have been light of late, and as a result the tone of the market has been firm, notwithstanding the presence of the Lenten season. Prices paid were fractionally higher than the previous week, and it is predicted that advances will take place again, both because of the end of the Lenten period which is approaching, and because of the fact that cattle have been costing very high in the country. It is claimed that 7c. and a fraction more was paid for steers weighing around 1,100 lbs., while heavier stock sold as high as 7½c. per lb. The market was quite firm. Fine cattle sold at 6½c. to 7c. per lb., and good at 6c. to 6½c., while medium stock sold at 5c. to 6c. per lb. Canners brought as low as 2½c. per lb. Choice milkers sold at \$65 to \$70 each, and mediums at \$50 to \$60, while springers brought \$30 to \$40 each. Lambs were selling at 7½c. to 7¾c. per lb., and sheep at 5c. to 5½c., while bucks and culls sold at 4½c. to 4¾c. per lb. Calves ranged from \$1.50 to \$8 each, and hogs at 8½c. to 8¾c. per lb. for selects, weighed off cars.

Horses.—In all cases, prices continue firm, even though there is no advance. Prices are as follows: Heavy draft horses, weighing from 1,500 to 1,700 lbs., \$300 to \$350 each; light draft, 1,100 to 1,500 lbs., \$225 to \$300 each; light horses, 1,000 to 1,100 lbs., \$100 to \$200 each; and broken-down animals, \$50 to \$100 each. Choice sables and carriage animals sell at \$350 to \$500 each.

Dressed Hides.—Owing to the increase of the market for live stock, the price of increased business in the market.

dressed, abattoir, fresh-killed stock selling up to 11½c. to 11¾c. per lb.

Potatoes.—The market for potatoes is, no doubt, firm, although some claim that it is almost impossible to make sales of car lots at the prices mentioned. Green Mountains are quoted at \$1.60 per 90 lbs., carloads, track, English potatoes being about \$1.50, and other qualities down to \$1.40, and even less for inferior.

Honey and Syrup.—The sap-running weather is now at hand, but the market is unaffected. Last year the run was very small, and the quantity of syrup was light, and the quality poor. Prices are 7c. to 7½c. per lb., for syrup in wood, and 70c. to 75c. per tin. Sugar is quoted at 8c. to 9c. per lb. White clover comb honey, 10½c. to 11½c. per lb.; extracted, 8c. to 10c.; dark comb, 7c. to 8c.; extracted, 7½c. to 8c.

Eggs.—Receipts are increasing, but production is greater than a year ago at this date. It seems to be the opinion that there will be little alteration in price till after Easter, when, as is frequently the case, there may be a decline. At the present time, new-laid Canadian eggs are selling in round lots at 26c. to 27c. per dozen, and sometimes a cent less. In single cases, the price is about a cent or so more than lots.

Butter.—Creamery very firm. September, 35c. to 36c.; Western dairy, 28c. to 29c., and rolls, 29c. to 30c.

Grain.—No. 2 Canadian Western oats sold at 52½c. to 53c. per bushel; No. 1 extra feed, 51c.; No. 3 Canadian Western, 50c.; No. 1 feed, 49c. to 49½c.; No. 2 local, 50c.; No. 3, 49c., and No. 4 local, 48c.

Flour.—Manitoba spring-wheat patents, firsts, \$6 per barrel, in wood; seconds, \$5.50; strong bakers', \$5.80, flour in bags being 30c. per barrel less. Ontario winter-wheat patents, \$5.10 to \$5.35, in wood, and straight rollers, \$4.65 to \$4.75.

Millfeed.—The market for millfeed was very strong, and it is hard to get sufficient supplies. Bran, \$25 to \$26 per ton; shorts, \$27 to \$28 per ton; middlings, \$29; pure grain mouille, \$32 to \$34 per ton, and mixed mouille, \$29 to \$30.

Hay.—Market a shade easier. No. 1 hay, \$15.50 to \$16 per ton; No. 2 extra hay, \$14.50 to \$15; No. 3 hay, \$11.50 to \$14, according to quality; clover mixed, \$10.50 to \$11 per ton, carloads, track.

Seeds.—Market rather firmer for red clover, and dealers quote 29c. to 27c. per lb., bags, f. o. b.; alsike, 22c. to 26c., and timothy, 16c. to 20c. Demand has improved, but is not heavy.

Hides.—Market for hides steady and firm. Beef hides, 11c., 12c. and 13c. per lb. for Nos. 3, 2 and 1 hides; calf skins, 13c. and 15c. per lb., for Nos. 2 and 1; spring lamb skins, 10c. each, and sheep skins, \$1.10 each. Tallow, 1½c. to 2c. per lb. for rough, and 6c. to 6½c. for rendered.

#### Chicago.

Cattle.—Beeves, \$5.15 to \$8.50; Texas steers, \$4.50 to \$5.75; Western steers, \$5.20 to \$6.75; stockers and feeders, \$4.30 to \$6.60; cows and heifers, \$2.50 to \$6.50; calves, \$6.50 to \$9.

Hogs.—Light, \$7.55 to \$7.85; mixed, \$7.55 to \$7.95; heavy, \$7.60 to \$7.95; rough, \$7.60 to \$7.70; pigs, \$5.25 to \$7.40.

Sheep and Lambs.—Native, \$4.35 to \$6.25; Western, \$4.40 to \$6.50; yearlings, \$5.75 to \$7; lambs, \$5.75 to \$7.85; Western, \$6.25 to \$8.25.

#### Buffalo.

Cattle.—Prime steers, \$7.50 to \$8, butchers' grades, \$3.50 to \$6.90.

Calves.—Cull to choice, \$5.75 to \$5.90.

Sheep and Lambs.—Choice lambs, \$8.25 to \$8.40; cull to fair, \$6.75 to \$8; yearlings, \$7 to \$7.30; sheep, \$2 to \$6.40.

Hogs.—Yorkers, \$8.15 to \$8.25; pigs, \$7.50 to \$8.25; mixed, \$8.30; heavy, \$8.40 to \$8.25; roughs, \$7 to \$7.35; others, \$5.25 to \$6.

#### British Cattle Market.

John Roovers & Co., of Liverpool, cable United States and Canadian steers market from 11½c. to 15½c. per lb.







knowledge is throwing timely light upon every phase of the woman question. In its entirety, that question involves the meaning of the socialization of one-half human kind. Of necessity, law must be brought abreast of this new knowledge.

SUSIE E. OILL.

Toronto, Ont.

#### AN OPINION FROM WENTWORTH COUNTY.

Should the suffrage be given to women? Should it, indeed? This question has perplexed the Legislators of many nations, and is one that is being asked by all thinking people. Several governments have already answered it in the affirmative; many more, including the English and our own Parliaments, are still replying in the negative. But what do we think about it?

Certainly women should have the franchise if they want it, and it seems very apparent that they do by the efforts they are putting forth to have it. To say that such actions do not speak in favor of the wisdom with which they would use it if they had it, does not in the least prove that they would abuse the privilege. It has always been the case, that when men are very much in earnest to pass a necessary measure, they will go to much greater lengths than the suffragettes have. This was shown by the intense excitement which prevailed at the time of the extension of Manhood Suffrage in England.

Why should women not vote?—but first we had better take up the positive side; the reasons why they should.

At the very first, we have the argument that the woman bears an equal share with the man in making the home. She does at least half of the work; spends herself, in many cases more than the man, to keep the home together; and bears a great deal of the responsibility. Then why should it be, that when the time comes to choose the lawmakers, one-half the citizens should have the privilege and the other half be deprived of it? As has been said, keeping the suffrage from woman is one of the last traces in our Christian civilization of the dark days, when she was little better than a servant or slave. It is not even necessary to go back to ancient times to find such conditions. They still exist to a large degree in India and Turkey. The Chinese woman's lot is greatly improving with the awakening of that country.

Does it seem fair, that, though women may own just as much property as men, they are not allowed to vote on it—with a few exceptions? When they break the law, they suffer equally with the men, although they have no voice in framing it. They bear equal responsibilities in every way, yet they must not vote. Does it seem fair?

The very strongest reason why women should have the franchise, is that, in all probability, they would pass temperance measures. This is admitted by even the opponents of the movement. Women, as a sex, are more in favor of total prohibition than men, and it would surely be but a little while until we had it, if women could express themselves in any way. We see this tendency for prohibition in the very active part women took in the great temperance campaigns in the United States. Though they could not vote, they exerted a tremendous influence over the elections.

Perhaps many women do not want to vote. Such is said to be the case, yet we cannot believe that they would not if they could. Can they not choose and vote for candidates with as much wisdom as men? I believe that much of what is said about women not wanting the vote is not true; that, in reality, they do not wish to appear too eager to have it. No doubt they are ashamed of the manner in which some of their sex are endeavoring to get the franchise, yet if they had it, it would be as wisely used as when in the hands of men.

Women are now taking every position occupied by men. They are seen in almost every office, filling every position, on an equality with men. Women are as able mentally as men, they can always accomplish as much brain-work, they are surely as sensible. Why, then, can they not vote, that is, as far as being intellectually fit is concerned? Such a question is absurd, it is too foolish to consider.

The point has been urged that it will

dull the finer temperaments of women, and to some extent lower them to mix in politics. Why should this be so? On the contrary, would not the purity and truth, all the beautiful characteristics of the fairer sex, help to uplift politics and make a higher standard? We believe so.

Again, it is often said that women need not vote, that they can influence their male friends to vote the way they wish, and thus secure their representation in this way. Perhaps this is true to some extent, but (it only applies to married women, and those who live in homes of their own. There is, however, in our Canadian and in the American cities, a vast army of girls, young women, and unmarried ladies, who are living entirely independent lives. They earn their own living, and are not dependent on any man for assistance. These women do not have any representation whatever. They are valuable citizens, but not being in homes of their own have no voice in political affairs. This is the class that would be benefited most by the suffrage; they would perhaps appreciate it more than married women, and certainly need it.

One of the points urged by the opponents of the movement is that politics will so occupy the woman's time that the children will be neglected, and her home will suffer. This appears unreasonable on the very surface. How long does it take a man to go to the polls and mark his ballot? He never thinks of the time it takes, and, in any case, it is too unimportant to notice.

As for woman not being interested in politics, and not sufficiently understanding government to take any part in it, we believe that when she is given the power to vote, she will prepare to do it intelligently. When she realizes the gravity and importance of electing proper representatives—as she is bound to do—she will vote as wisely as the male citizen.

Wentworth Co., Ont.

#### A GREY CO. OPINION.

Should the Suffrage Be Given to Women?

Yes; undoubtedly yes, for the following reasons: Because no race, or class, or sex, can have its interests properly safeguarded, unless such race, or class, or sex, has a voice in the making of the laws of its country; because, although in the past women's place has been considered to be in the home, the nation is but a larger home, and the idea of social service, of direct and personal responsibility to the community is more widespread to-day than ever it was before, and women equally with men need to take an interest in the larger human life outside the home; because lawmaking affects them greatly in many ways, and because I think every true woman ought to have a responsible interest in that which affects herself and family.

It is not for women's rights altogether that I intend to argue, but for the welfare of the race as a whole. Legislation in the past has made many laws which do not grant equal privileges to man and woman. Because they are wholly made by men, they are made from man's standpoint, and to suit themselves. Such questions include: Morality, The White Slave Traffic, Temperance, The Care of Women and Children in Reformatories, The Housing Problem in Large Cities, Education, The Death Rate of Infants, Vaccination, The Employment of Children, Playgrounds for Children, Sweating, The Labor of Married Women, The Care of the Aged and Feeble-minded, The Peace Problem, and many others. In the past, too many men have considered women as a parasite, a mere hanger-on, a sort of a slave, to bring forth children and minister to his and their creature comforts. He is the guardian of the children according to law, but she it is who has to bear pain and labor for their very existence, she it is who has to care for their small bodies, and feed and nourish them, both in sickness and health. She has great responsibilities, and also great opportunities. But why is it that women who are mostly responsible for their children's moral and religious upbringing have no say in their public or social life? A great deal has been attributed to our influence, and it goes a good way,

but it is not everything, for in a great many ways our hands are tied. We are told by Institute workers and others to visit the schools and see what reforms are needed there and try to accomplish something, but how are we to go about it? By influencing others? Would it not be a great deal better if we could have a say as to who was to be put in as trustees, or in being trustees ourselves? Oh, I suppose somebody will laugh at that. Well, I have known of cases where men put in as trustees and secretaries of school boards, and their wives had to do the work for them. Why could not the women have been put in at first? We women are tired of sending "deputations," and praying his "lordship-man" to condescend to let us have this or that needed reform, which they will promise to give their best attention, and then laugh at us behind our backs. Only the other week, deputations from nearly all the Provinces waited on Mr. Borden at Ottawa and prayed for his influence to be used in prohibiting cigarettes being sold to children (it seems this evil is increasing by leaps and bounds). Well, he only promised to consider it. Why could he not have knocked it on the head at once? "If it had been a mad dog, it would soon have been muzzled." A thing like that is wrong, and everybody knows it, and I don't think it needed consideration. Where women have become voters, reforms have proceeded more rapidly than before. Take California, for instance. They soon settled the temperance question there, and they would, too, in other places.

If, as some think, woman's place is in the home, that does not imply, surely, that she should for ever stay there. She needs to go out occasionally for change and relaxation, for the good of her health, and to get her ideas broadened and stimulated. She goes to church and to town and other places. If she has small children, she has either to take them with her or leave them at home in somebody else's care, but she cannot stay at home for ever. One might as well say that the farmers ought to stay at home to look after their stock and other things, that the merchants ought to stay in their offices, and the mechanics at their benches. No true woman will neglect that which is of first importance, her motherly and wifely duties—her maternal and inborn instincts prevent that—but women have not yet taken their places where God intended they should, as help-mates and equals to man. If the woman is not without the man, neither is the man without the woman, and the battle is now for us all in whatsoever sphere we find ourselves, but it will be with the pen more than the sword, and the head more than the arm, and our intelligence more than our physical strength. In the East and in the West, women are asking for the opening of the doors of intellectual advancement, and claiming a large share in the world's work. In the Orient, where in the past women lived as virtual slaves, and gave passive obedience to their husbands, they are clamoring for education, and getting it, too. During the last decade or two, English, French and German governesses have been constant companions of ladies of the harems, and many Western ideas have found a place there. In Turkey, India and Egypt, it is the same. Wherever European governesses and missionaries have gone and scattered knowledge, and books and journals, there is a keen desire for more, and a wish for greater freedom to develop and use the intellectual faculties to the fullest extent. The women of China are allowing their feet to grow, and the Japanese are asking for more teachers, sending their girls to high schools, and discarding the ancient costumes of their ancestors. And will we in Canada be behind? No. We have passed the chrysalis stage, and soon, very soon, we will be spreading our wings in the full light of human intelligence, and taking our places beside the men we love, to sink or swim with them, in all affairs of national importance, as well as in our homes.

For it's coming yet an' a' that,  
When women folk the world over  
Will get the vote an' a' that.

MRS. W. BUCHANAN  
Ravenna, Ont.

[Since these essays were written, the franchise has been given to women in China.]

## Hope's Quiet Hour.

### The Power of His Resurrection.

That I may know Him, and the power of His resurrection.—Phil. iii. 10.

St. Paul's longing to know fully the power of the Risen, Living Christ, is not out of date. Men and women still find all earthly gains and pleasures are unsatisfying, their hungry souls still reach out for better and higher joys. The other day someone asked me the old question: "Why don't the men go to church?" and I answered: "I am surprised that so many do go to church." Why am I surprised, when I am sure that the soul of every man is really—though perhaps unconsciously—thirsting after God?

My surprise springs from the fact that they have gone so often, and found no Risen Christ there, that they must be discouraged and hopeless of ever finding Him.

Is that His fault? Has He broken His promise to be "in the midst" of any little company (even a company of two) gathered together in His Name? Never! He is certainly there; so, if anyone goes to church and comes away again imagining that the only persons in the building were the congregation and the minister, it is because he was too careless or faithless to find the Loving Lord of the Church. As it was long ago, the multitude is thronging and pressing close to the living JESUS, but only a soul touching Him intentionally and with conscious purpose, gains health and strength by the close contact.

We are still taught spiritual truth by parables. Consider that familiar yet mysterious power that we call "electricity." Suppose that invisible, mighty force should say to a wire: "It is your mission to light up the darkness of a room, you can move heavy street-cars swiftly, you can drive machines, you can supply heat for ironing." The wise might reply: "How can I supply light, power and heat? I am only lifeless, cold, black iron. I cannot even warm myself or light up my own blackness, or move myself the width of a hair. I cannot supply to others what I do not possess myself."

But the iron can and does supply light, power and heat as required, not from its own resources, but by keeping in touch with the source of supply. The moment it is connected with the dynamo, the light, heat and power flash through it to light a room, drive a car, or iron clothes.

So Christ says to the members of His Church: "Ye are the light of the world."—S. Matt. v. 14. That does not conflict with His majestic declaration of His own Divinity: "I AM THE LIGHT of the world." In fact, it is just because He is the Source of Light that men and women are able to supply light wherever He has placed them. Like the dead wire, which is rightly called "a live wire" when it is in vital touch with the storage battery, they can supply light and power (which is not their own) by keeping in vital touch with God.

Doctor Schofield—a doctor of medicine—says he once received a letter in which the writer said: "I used at one time always to be wanting things for myself . . . sympathy, appreciation, culture of talents, etc. Now I feel as if I wanted absolutely nothing, and suddenly I find myself rich in all that is worth having; and able to GIVE, and GIVE, and GIVE to all I meet who are in any need." The doctor goes on:

"How can I illustrate this? I have a pipe that brings water down from a small cistern that holds a gallon. Such a cistern is soon emptied. But if it be connected with a lake miles long, I find, to my surprise, that the cistern, though it still only holds a gallon, has suddenly become inexhaustible. My heart is the gallon cistern, and soon runs dry; but once connected with God it never can, and I am able to give, and give, and give to all."

He also reminds us of the description of the City of God in Revelation xxi—a translucent cube 1,500 miles in every direction, with the glory of God and the Lamb in the midst of it. No wonder it is possible for the nations of them which are saved to walk in the light of it."



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when its foundations are shining gems, its walls are jasper, its gates are pearls, its streets are pure gold, transparent as a diamond—and the Light of the world is in the midst of it, shining through.

The light of the nations is the Church of God, the New Jerusalem, "having the glory of God: and her light like unto a stone most precious, even like a jasper stone, clear as crystal." She is like the moon, having no light of her own, and yet lighting up the darkness. Her business is to keep herself pure and to keep alight the Life of God within her. Then, and only then, can Light and Power and Love flow from God through her to the nations of the earth.

The bush which Moses saw in the wilderness was only an ordinary thorn-bush, and yet it filled him with reverent amazement. Why? Because it was afire with God. The rod in his hand was only a common stick of wood; and yet with it he made a way through the sea in time of danger, brought water from a rock in time of drought, and supplied all the power needed by the millions of Israel. Why? Because God chose to work, through this powerless instrument, as He chooses to-day to work through you, if you will let Him.

There is something wrong with your Christianity if the people around you are not able to see your good works and glorify God. If they see your good works and only glorify you—especially if that is what you secretly hope they will do—then you are not showing forth the power of the Living Christ.

What are your secret thoughts like? Is your soul a temple, pure and shining, with God Himself as your heart's desire enshrined in its Holy of Holies? Do you keep in conscious touch with Him, so that He may pour His light and power through you? When other souls have been blessed through you—not by you—do you feel elated, imagining that your own power has helped them; or very humble, knowing that you are a powerless instrument through whom God is working?

"When mortals praise thee, hide thine eyes,  
Nor in thy Master's wrong  
Take to thyself His crown and prize;  
Yet more in heart than tongue."

When the Living Christ is allowed to have full control over a life, His indwelling power can still work miracles. A few days ago I was calling on a young man who is hopelessly crippled with rheumatism. Four years ago he was in my Sunday-school class, and was then a careless, happy-go-lucky lad. Now he is facing a hard future with glorious courage, knowing that he can never walk again without crutches, and that he must always be dependent on others for even such a trifle as putting on his shoes and stockings. He utterly refuses to pity himself, and is determined to do his best (with the powers of brain and body still left to him) to earn his own living. A visitor may call on him from motives of pity, but is soon filled with reverent admiration. He has gone through his Gethsemane, of course, and has a fierce battle with Despair, and has—by the grace of God—come off victorious.

That is one case—and there are thousands more—where the power of the Living Christ is giving joy in pain, mighty strength in helplessness, light and peace in the life-long endurance of a heavy cross. Is JESUS alive and here? If He were dead, could even one such life shine with the light and power which He supplies? If you see only one electric light burning, you know that the mysterious force of electricity is really there—even though dozens of other bulbs may be cold and dark. You do not question the presence of the electric force, but only take it for granted that there is something wrong with the connections. So one life, lighted up by Christ, is a proof that He is not dead, but is risen—a proof more convincing than all the sermons in the world.

Just here I was interrupted by a ministering angel who brought me a cup of delicious tea with a slice of lemon in it. She—of course it is a "she"—evidently thinks I have talked long enough, and you will probably agree with her.

Christ wants to light up your life from within. He wants the watching world

to see in you the power of His Risen Life. Let us each ask:

"What little spot is lighter,  
Or better anyway,  
Because we live, all light to give,  
Within our little day?  
If we should find Him standing  
Beside us here to-night,  
Would there not be something to see  
By Love's unwavering light?"

DORA FARNCOMB.

## The Beaver Circle.

### Easter Gifts.

Children usually like to make little Easter-egg souvenirs to give to their friends. To make tee-totums, which will always bob up if you knock them over gently, you proceed as follows: Put a hole in each end of the egg, a very tiny one in the large end, a larger one in the small end, then blow the egg out into a bowl so that your mother can use it for something. Now rinse the shell and put it, small end up, in an egg-cup. Next mix some plaster of Paris into a sort of batter, and half fill the egg shell by pouring the batter through a funnel made of paper. Keep the shell upright in the egg-cup until the plaster is hard. Now paint a face on the shell, and put on a little cap of cloth (peaked) or wig of fringed paper to cover the hole.

Egg Paper-weight:—To make this proceed exactly as above, except that you fill the shell to the top with the plaster of Paris, then, when it is hard, glue the egg to a little pasteboard stand or to a cloth pen-wiper. Decorate the shell little cap of cloth (peaked) or wig of your school water-colors.

Easter Bells:—Blow the egg shells and dip them in dye. Break enough of the shell away from the larger ends to make each shell look like a little bell. Run a clapper of ribbon through, making a little knob on the end of it, and hang the bells in clusters of three with baby-ribbon.

Japanese Lantern:—Blow and color the shells. Make the holes at each end of the right size and paste little rims of paper around, letting it run a little to the inside, but stand up like a "collar" all round. Paint flowers on the outside and hang up by baby-ribbon or tinsel.

Colored Eggs for the Table:—When boiling the eggs for breakfast put in a little harmless coloring to make them look pretty. For yellow put some saffron in the water; for green put in some parsley or some spinach coloring; for brown boil the eggs in coffee; for pink or red add cochineal. Have the "dye" in any case boiling, drop in the eggs, cover the kettle and set it on the very back of the range for ten minutes. If names or pictures are traced on the eggs with tallow before boiling the traced part will stand out white.

### The Riddle Contest.

Dear Beavers,—On the whole very bright answers were given in the riddle contest, but the highest marks went to the following: Catherine MacDonald, Upper Welsford, Queen's Co., N.B.; Joseph W. Thompson, Marmion, Ont.; Eliza J. Dickinson, Welcome, Ont.; Mack Paterson, Rodney, Ont.; Eva Pennington, Crathie, Ont.

Others who also did well were Lizzie Cook, Humphrey Campbell, Charlie Flatt, Laura Chesney, Hallie Taylor, Kathleen Ware, Vina Erb, Hanna Kirkton, George Houston, Stella Nelson, Evelyn Adams, Philip Lynch, Raymond Piercy, N. D. McCuaig, Winifred Colwell, Bertha Schmidt, Cora Baer, Olive Healey, Esther Hanna, Annie Robinson.

The answers as given in the book from which we took the riddles were as follows:

1. What insect frequents rural schools?—The spelling-bee.
  2. Why is A like a honeysuckle?—Because a B follows it.
  3. What bird can lift the heaviest weight?—The crane.
  4. Why is a tramp like flannel?—Because he shrinks from washing.
- Nearly all of the Beavers got the answers as given for No. 2 and 3. One



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Vegetable fibres require one class of dye, and animal fibres another and radically different class of dye. As proof—we call attention to the fact that manufacturers of woollen goods use one class of dye, while manufacturers of cotton goods use an entirely different class of dye.

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dear little girl said she had heard the second before.

To the first the following bright answers were given: The bookworm, the drone, cricket, gaddy (this one was sent by Eliza Dickinson), country bugs (sent by Charlie Flatt), yellow jackets, bees (Bs), ants—"because a special room is provided for them, ante-room" (sent by Joseph Thompson).

For No. 2 the following answer was considered bright: "A is like a honey-suckle because there is none in 'winter.'" (Mack Paterson).

One little girl thought that the heaviest weight (No. 3) could be lifted by a bird of prey (pray).

No. 4 brought out many answers. "A tramp is like flannel because he is rough" (sent by several); "Because he is more often on hand in cold weather" (Joseph Thompson); "Because it takes soap and plenty of water to wash him" (Lizzie Cook).

Several papers could not be considered because the writers forgot to state that they had received no assistance in thinking out the answers. You see, Beavers, we must keep to rules. Always read the conditions carefully before mailing your competition letters.

## OUR JUNIOR BEAVERS.

[For all pupils from First Book to Junior Third, inclusive.]

### Junior Beaver's Letter Box.

Dear Puck,—I am going to tell you about the garden I had last year.

Early in the spring I sent to Toronto for flower seeds. As soon as they arrived here I filled some boxes about six inches deep full of soft earth and set them on the veranda in the sun so the earth would get warm and dry before I planted my seed. I first planted my pansy seeds, which I sprinkled as evenly as I could all over the earth, then I covered it lightly and patted it down with my hand, so the earth would be firm around the seeds, which would make it easier for them to catch root. I always kept them a little damp.

The nights were still cold, and I would cover the boxes with bits of carpet. Pretty soon they came peeping out of the ground, but it was not all flowers that came up; there were a great many weeds besides. For a while I could not tell the difference.

When all danger of frost was over I transplanted the China asters and pansies.

In the beds of candytuft and portulaca I planted a geranium in the center that had been grown in the house during the winter.

I also had beds of poppies and mignonette. The poppy is a flower that lasts a very short time, but when it is in bloom it is quite pretty. Mine were of a dark red color. When the petals blow off you can see a tiny green case which grows until it is about one inch in diameter, then turns black, which shows that the seeds inside are now ripe.

My sweet peas I planted in a row placing each seed about 2 of an inch apart. I made a trellis for them to run upon.

The pansies soon started to bloom. Sometimes I would cut them all off and the next day you would hardly know I had touched them, for there would be so many in bloom again. The pansies and candytuft went well together in a bouquet, as the pansies were dark and the candytuft white.

I did not tell you that I had a bed of lettuce and some tomatoes.

I was very sorry when the frost came in the fall, but I hope to have another garden next summer.

I would like you to have a gardening competition, for I think it is lovely work.

From your little gardener,  
DOROTHY NEWTON  
(Age 10, Book 3).

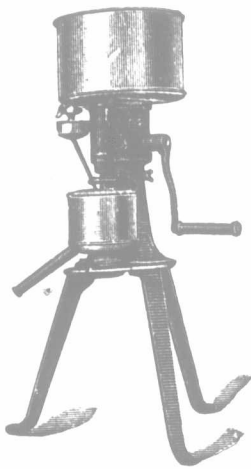
Clover Dale Farm, Plaisance, Que.  
This is a very good letter, Dorothy. We are going to have a gardening competition again this year, and will tell you all about it soon.

Dear Puck and Beavers.—One day when I was riding my pony I got shaken up to the neck, and was forced to slide off.

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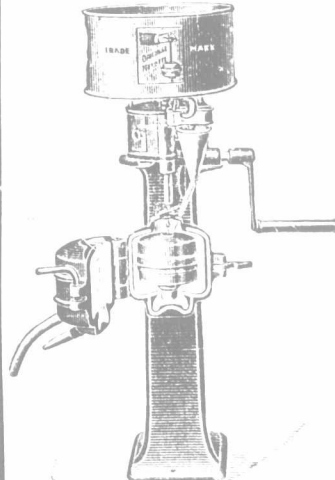
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When my brother was riding him he fell off. I often go to Desboro with him, and to-day my sister and I are going. My brother has lots of fun with our little pup.

I will send a few riddles: It followed King William, poor thing, it came before Queen Mary, poor thing. Ans.—The letter M.

Who sits with his hat on before the King? Ans.—The coachman.

HARLAND ATKINSON.

Desboro, Ont.

Dear Puck and Beavers,—This is my first letter to the Beaver Circle. My father is taking "The Farmer's Advocate." I enjoy reading the letters the other Beavers write. I will tell you about my pets. I have a dog named Collie, and I have an old cat named Tabby. I go to school. The school is a mile and a half from our place. I will close, hoping this escapes the w.-p. b., and wishing the Circle every success.

IRENE CARNEGIE

(Age 10, Book Sr. II.)

Brantford, Ont.

Dear Puck and Beavers,—I have just finished reading the Beaver Circle, and thought I would just like to have a chat with you. I have a little sister, and we go to school, and like our teacher fine. I have a little dog, and we call him Collie, and he draws me around. We live six miles from Orillia. We have taken "The Farmer's Advocate" for many years, and like it fine. We have a large farm now. I will close with a riddle: Old Mother Flippety has but one eye, she has a long tail that she can let fly; but every time she goes through the gap she leaves a piece of her tail in the trap. Ans.—Needle and thread.

BOULTON MARSHALL

Hawkestone, Ont. (Age 8, Jr. III.)

Dear Puck,—This is my first letter to the Beaver Circle. My father has taken "The Farmer's Advocate" for three years. I have one mile to walk to school. I go to school nearly every day now. I like my teacher very much; her name is Miss Hamilton. I am eight years old, and am in the second book. I will close, hoping this will escape the w.-p. b.

NORA BELL.

Nelson, Ont.

Dear Puck,—I have about a quarter of a mile to go to school. I was eight years old on Christmas day. I am in the first book now, and I only started a year ago. I have a little sister three years old, and a little brother six months old. I have a pure-bred English Collie I call him Buster Brown. Our old horse died the other day. We have a kitten called Popsey. I will close now, wishing the Beaver Circle every success.

HAROLD SKELLETT

Eastmount, Ont. (Age 8, First Book).

Dear Puck and Beavers,—This is my first letter to the Beaver Circle. I am trying to make it as interesting as I can. I live between Welland and Niagara Falls. It is about five miles from our place to Welland, and about eight miles from Niagara Falls. We go to Crystal Beach quite often. It is a pretty summer resort on the shore of Lake Erie, and is about fourteen miles from our home. For pets I have three cats, two kittens, and one old cat, two sheep and one hen. I call her Rebecca. I have saved my money and bought my sheep with it.

My father has taken "The Farmer's Advocate" for one year. As my letter is quite long I guess I will close.

CAMERON K. K. SMITH

Crowland, Ont. (Age 9, Sr. III.)

You've written a very nice letter, Cameron. You see what "trying" does.

Dear Puck and Beavers,—As this is my first letter to the Beaver Circle, I hope it will not come in contact with that monster of a waste-paper basket. I have got five pets, one a dog which I call Tyge; a cow which I call Daisy; a hen which I call Chucky, and the other two a cat and a canary. The latter sings from morn till night. I live five miles from Perth and eight miles from Smith's Falls. We had a concert up

in our school at Christmas, and I had two pieces to say. We got a new teacher last summer, and we all like her fine.

PEARL ARMSTRONG

(Age 11, Sr. II.)

Perth, Ontario; Box 250.

Dear Beavers,—I am going to write my first letter to the Beaver Circle. My father has taken "The Farmer's Advocate" for fourteen years, and we enjoy the paper very much. I always enjoy reading your letters, but have not written before, because I was afraid it wouldn't escape the w.-p. b. We live on a farm, about a mile and a half from the Georgian Bay. We have a splendid view of the Blue Mountains, which are about seven miles from town. I have two miles to go to school. We have a fine brick school that was built three years ago, well equipped, having an organ, a library, slate blackboard and a furnace, which is a great improvement to the old one.

As my letter is getting too long, I think I will close, wishing the Beavers every success.

BEATRICE COE

(Age 10, Book Jr. III.)

Allenwood P.O., Ont.

This is also an interesting letter. The Junior Beavers are improving.

Beaver Circle Notes.

Rita Coyle wrote a delightful little letter, but it was written on both sides of the paper, and, you know, that is very awkward for the printers, who are very busy men indeed in our office.

Many letters are still held over. Don't write any more, little Beavers, until I tell you to begin again.

KING EDWARD'S DOG.

By the way, have you heard that King Edward's little dog Caesar is collecting funds for the King's Hospital Fund, in London? He wears a little box on his collar into which people put money. Caesar, you will remember, is the little rough-haired dog that used to follow King Edward wherever he went. At the King's funeral he trotted along beside the gun carriage, and for days afterwards he kept wandering about, apparently looking for his lost master. He may remember him yet,—who knows?

Lilies.

By Emily Bugbee Johnson, in Onward.

Dear fragrant lilies, now unfold  
Your lovely petals white,  
And let your calyxes of gold  
Gleam in the April light.

Another Easter morn is near,  
And the glad bells will ring,  
As death's cold shadows flee away  
In hope's eternal spring.

And all the fragrance of your bloom,  
Your purity and grace,  
Should gladden every sorrowing home  
And every sacred place.

Since Christ is risen 'tis joy to know  
We never can be dead,  
Though from this lovely world we go,  
Through the dark valley led.

As your own stainless flowers uprise  
From the dark bulb below,  
So we to life beyond the skies  
From out the mould shall grow

Ah! no, we never can be dead  
Since He lives evermore.  
If from His life our own is fed  
A spring that fails no more.

Some Easter Echoes

Like many other festivals, the celebration of Easter really dates back to pagan ceremonial. In Egypt the vernal equinox and rising of the Nile were the signal for general rejoicing and sacred rites initiated by the priests, who watched anxiously for the "turning of the sun." Hence the root of Easter rejoicing is really found in the old-time worship of the sun.

The name "Easter," however, has been derived from the name of the goddess of the Saxons, Ostara, who was the personification of the east, of morning, and of spring.



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Notice the RUST PROOF shaft through centre that makes the machine rigid and insures long life, also the "Anti Warp" rust proof steel ring sprung into a groove inside the tub. No other machine can have these features. It is original, unequalled, and pays for itself in the clothes it saves. It is harmless to everything except dirt. Ask for "AUNT SALINA'S WASH DAY PHILOSOPHY", an interesting little book that will bring to you many ways of lightening the drudgery of wash day.

A-12

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Finally the Easter which we know was instituted in commemoration of the resurrection of Jesus Christ, the first Christians continuing to observe many of the old festivals though in a new spirit.

The date of the Christian Easter was at first identical with the Jewish Passover, but this was not pleasing to the early church, and so, after much disputation, another time was set by the Nicaean Council, and the time finally became recognized as the first Sunday after the full moon following the vernal equinox.

According to a regulation of Constantine, Easter was made the beginning of the year. In France this rule held until 1565, when by an ordinance of Charles IX. the first of January took its place.

The symbols clinging about Easter also point, though vaguely, to Pagan origin. For instance, the egg, now used as a symbol of resurrection, possessed a symbolic signification in many lands long before the Christian era. In the Veda of the Hindus old hymns still tell of a primeval water from which arose an "egg" that gave birth to Brahma.

The hare also figures in many mythologies, and from ancient times was considered as a symbol for the moon.

The custom of eating "hot-cross buns" on Good Friday is supposed to have descended from pagan worship of the Queen of Heaven, by the eating of cakes made to resemble the sacred heifer in Egypt.

Until the reign of James II. in England it was the custom for the Sovereign at Eastertide to wash the feet of as many of his subjects as he numbered years in age, and old records tell that in the thirty-ninth year of her age Queen Elizabeth washed the feet of thirty-nine of her subjects, the said feet having been previously "doubly washed and perfumed." At a later date the ceremony was deputed to the King's almoner, and finally gifts of money, or "maunds," were substituted for the ceremony.

In former days the lighting of the paschal candle was a great feature of the Easter rejoicing. The candle itself was then a very conspicuous object in the church, and at Durham Cathedral was placed in the center of the altar step. In this cathedral the central stem of the candlestick (which had also four branches spreading out towards the four cardinal points), was about 38 feet high. With the candle proper the total height reached was 70 feet, and the lighting was done from above.


At Lincoln Cathedral, in 1300, the candle weighed 3 stones of wax, while that at Westminster in 1558 weighed no less than 3 hundredweight. After Whitsuntide whatever wax remained was made into candles for the funerals of the poor.

### 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.]

Dear Ingle Nook Friends,—Aren't you glad that the fashion of budding out in a new hat on Easter Sunday is a thing of the past? It seems so easy to see now why people of taste refuse to make this bit of show on this special day, and yet the time has not so very long gone since it was the custom to "do so,—just custom, which so often manacles us and keeps us from even attempting to use our reason in regard to certain things.

I remember especially one Easter Sunday—or rather, be it to my shame—the hats of one Easter Sunday. My sister and I were then members of the choir in a large church in a Northern town. Black and yellow was the fashion. We were both very young, and I suppose very silly in some respects,—it would have seemed a dire calamity if we had not had new hats for Easter—so behold us, on that beautiful sunny morning, parading down street surmounted by big black creations ("confections," as some English people say—and no doubt we would have thought the term very ap-



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### LOUDEN HAY CARRIER

to the repair shop. It lasts a lifetime. Its lock has a square catch and cannot possibly wedge or fail to work. The powerful wheel arms will never spread. All twist and kink are let out of the rope by our simple patented rope swivel, the only successful swivel on the market. Won't bind on the track, has adjustable stops. The Louden Balance Grapple Fork is the best fork ever built. Will handle dry clover, alfalfa or thrashed straw where all others fail. The Louden Hay Carrier and Louden Grapple Fork will work in any barn and handle all kinds of hay with more satisfaction than any others. See them at your dealer's—if he does not have them, write us. Send for catalogues—Hay Carriers, Door Hangers, Litter and Feed Carriers, Cow Stalls, Cow Stanchions, etc.

**Louden Machinery Co.**  
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(MAPLE LEAF LABEL)

is rich in food value and easy to digest. It is just Cocoa—pure Cocoa—ground from the choicest cocoa beans.

201

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**Trial Box**

**\$1.50**

**6 Pairs Holeproof Hosiery (25c per Pair)**

**Guaranteed Against Holes for 6 Months. Send Coupon**

**A MILLION PEOPLE** are wearing Holeproof Hosiery! We have sold 24,006,034 pairs! Guaranteeing six pairs six months plus the quality of "Holeproof" is the reason "Holeproof" sells to so many. These people get comfort from "Holeproof" and save darning. You'll do the same. Order a box today. Send coupon.



**Note the Guarantee Ticket** → This ticket comes to you in each box. If any or all pairs wear out in six months, return the worn pairs with a coupon for each and we'll send you new hose FREE. But "Holeproof" are so good that you probably won't have to send any back.

**FAMOUS Holeproof Hosiery**  
FOR MEN WOMEN AND CHILDREN

None Genuine Without Signature, "Carl Freschl"

Reg. U.S. Pat. Off. 1906

Carl Freschl We pay top market price for 3-ply Egyptian and Sea Island yarn—the finest obtainable. We could buy yarn for 30c, but it would be cumbersome, coarse and 2-ply. Our yarn, which is lighter but stronger, enables us to make a lighter and stronger hosiery. Thus we can guarantee a light hosiery. We also make heavy weights.

**Saves Darning, Discomfort and Expense**  
Write for List of Sizes, Colors and Grades

Men need not any longer wear socks with holes in them. Children may now always wear neat-looking stockings. WOMEN MAY SAVE ALL THE DARNING! Think of the darning you do now; then order. Or send for the "Holeproof" list of sizes, colors and grades.

Don't pay out good money for hose that wear out in a week. Get this Trial Box of "Holeproof" and learn how hosiery should wear—even the lightest weights. Send the coupon and \$1.50 now, while you think of it. (Don't forget to send \$2 if you want them for women or children.) Remit in any convenient way.

**Holeproof Hosiery Co. of Canada, Ltd.**  
174 Bond Street, London, Canada

*Are Your Hose Insured?*

MENTION THE FARMER'S ADVOCATE WHEN WRITING ADVERTISERS.

**Trial Box Order Coupon**

**Holeproof Hosiery Co. of Canada, Ltd.**  
174 Bond Street, London, Can.

Gentlemen: I enclose \$1.50 (\$2.00 for women's or children's), for which send me one box of Holeproof Hose. Weight.....(medium or light?) Size..... Color (check the colors on list below). Any six in a box, but only one weight and one size.

Name.....  
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**LIST OF COLORS**

**For Men and Women**  
Black Light Tan Dark Tan Pearl  
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Black, and tan, only; and medium weight only.

(279)



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to serve low-grade oatmeal to the children, when Quaker Oats costs one-half cent per dish?

Quaker Oats is made from just the rich, plump grains—the finely flavored oats.

We get but ten pounds from a bushel.

That cream of the oats, when prepared by our process, forms the finest oat food in existence.

The exquisite flavor has won millions to it.

In this daily dish—this premier food—don't you think that the grade is important?

# Quaker Oats

Family size, with a piece of china beautifully decorated, 25c. } Except in Extreme West  
Regular size for city trade, 10c. }

The Quaker Oats Company

PETERBOROUGH, ONT.



Look for the Quaker trademark on every package.

2501

**Take A Handful Of "St. Lawrence" Sugar Out To The Store Door**

—out where the light can fall on it—and see the brilliant, diamond-like sparkle the pure white color, of every grain.

That's the way to test any sugar—that's the way we hope you will test

*St. Lawrence*  
**Sugar**

**Compare it** with any other sugar—compare its pure, white sparkle—its even grain—its matchless sweetness.

Better still, get a 20 pound or 100 pound bag at your grocer's and test "St. Lawrence Sugar" in your home.

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**Vanco DID IT**

**"VANCO" Lime Sulphur Solution**  
will keep your fruit trees free of Scale, Parasites and Fungi. It is strong, uniform, clear, efficient—the strongest perfect solution that can be made and far superior in every way to home-made mixtures. The Canadian Government Bulletin proves this. Specific Gravity on every barrel, to protect you.

**"VANCO" Arsenate of Lead**  
will destroy all leaf-eating insects—never burns—sticks longer. The largest order ever placed for Spray Chemicals by any Canadian Fruit Growing Company, was for "Vanco" Lead Arsenate.

**"Vanco" Fertilizers**—Muriate of Potash—Sulphate of Potash—Acid Phosphate—Nitrate of Soda. We are the only house in Canada selling straight fertilizing chemicals of guaranteed analysis.

Save Freight—by ordering Sprays and Fertilizers together and having us make one shipment of the lot.

Send for the "Vanco" Book—study it—and spray for fall profits.

CHEMICAL LABORATORIES, 148 Van Horne St., TORONTO. 44

MENTION THE FARMER'S ADVOCATE WHEN WRITING ADVERTISERS.

appropriate), trimmed with yellow pond lilies. We were very conscious of those big hats and yellow lilies—conscious and—satisfied.

The choir-room that morning was quite filled with "creations" somewhat similar to our own, black and yellow everywhere, as though it had been a Spanish fete,—and every hat enormous in size. When the sopranos and altos filed into the choir-loft the basses and tenors were quite blotted out. Moreover, the whole church was one fluttering mass of new headgear, and resembled nothing so much as a millinery show, whose gorgeousness quite overshadowed the two white Easter lilies on the Communion table. The pure spring sunshine flooded in through the windows, but upon women whose attention was too often distracted from the service by the head decorations in this seat or that ahead. Women do love pretty things, there's no getting out of it, and it is quite right that they should. Indeed, there would be something wrong with a woman who had lost all interest finally and forever in a pretty hat, so perhaps it was not altogether the fault of those women on that Easter Sunday if they peeked a bit. The fault was rather with the custom that made such a wholesale display possible.—And yet, somewhere, it must have been the Sabbath.

The custom of such Easter show obtains in but few places now, and among comparatively few people. We can all help in putting a ban upon it by coming out, by degrees, with our finery, wearing our new hats either a week or two before or after Easter, and so leaving the day to be marked by its message rather than a flaunt of ribbons and artificial flowers.

By the way, what do you think of surplices and "mortar-boards," or caps equivalent to them, for choirs? I should like to hear your opinion on the subject, then I will tell you mine.

JUNIA.

**DROP COOKIES—CLEANING QUERIES.**

Dear Junia,—This is my first letter to the Ingle Nook, although I have always read with pleasure the many helpful letters sent by all the other chatters. So now I have come in distress myself. I always save the papers, but there is one that I don't seem to be able to find. It was one containing a recipe for ginger drop cakes, and if I remember rightly, it was given by Miss Canada in August 20th, 1911. I remember there were 3 eggs and 5 cups of flour, 1 cup boiling water; the rest of the recipe I cannot recall. (2) I have a navy blue dress, very loosely woven goods, all wool; is there any other color I could color it besides black? (3) Could you publish a method for cleaning Brussels carpet? (4) Also a method for cleaning rust off the steel on a range? (5) Could you also tell me how to clean a yellow silk piano drape which has been badly spotted by flies? Would you advise rinsing it out in strong salt water?

Well, I guess I have asked enough questions for the first time. With best wishes to all, I am,

"BLACKBIRD."

Glengarry Co., Ont.

I have not been able to find the recipe you mention. Perhaps someone else can give it. Here is a recipe for drop ginger cakes which may be satisfactory: Put in a basin 1 cup brown sugar, 1 of molasses, 1 of butter, then pour on 1 cup boiling water and stir well. Add 1 egg well beaten, 2 teaspoons soda, 2 tablespoons each of ginger and cinnamon.  $\frac{1}{2}$  teaspoon ground cloves, 5 cups flour. Stir well, and drop in spoonfuls on a buttered tin, and bake in a rather quick oven.

(2) Packer's Dye Works' manager, to whom I telephoned in regard to your dress, says that if it is a very dark navy it will not dye well to any color but black. If a light navy, it might take a dark green. She says that it would be safer to dye it navy blue again (if faded) and trim differently to make a change.

(3) Nothing is better than a vacuum cleaner for taking dust out of carpet. If, however, the carpet is soiled with dirt-marks or stain, other methods must be resorted to. The following formula, known as "Clarke's Wash for Carpets," is given by Scientific American. Solution (a).—Mix 4 parts ammonia water with 3 parts alcohol diluted with water.

Rub the carpet with this to loosen the dirt, then wash well with solution (b) made thus: Dissolve 10 parts soap in 20 parts water, add  $3\frac{1}{2}$  parts soda and  $\frac{1}{2}$  part each of ammonia water and alcohol. Rinse well and dry.

Another method is to use a wash of 1 part oxgall to 1 pailful water. Rinse with clear water, and sponge as dry as possible.

(4) To remove rust from steel, cover the spots with sweet oil, well rubbed in. Leave for 48 hours, then rub with pulverized unslaked lime. To remove it from a nickel-plated surface, cover the spots with oil for a few days, then rub with a little ammonia. If this fails, apply very dilute hydrochloric acid. When dry, polish with whiting.

(5) Wash your silk drape in gasoline. Of course, you understand that this work must be done in a room where there is no flame, either fire or lamp-flame. Neglect of this precaution has often caused dangerous explosions. If you are too much afraid of the gasoline, as some are, soak the drape in water to which a little turpentine has been added, let dry, then wash carefully with cool soft water and a mild soap.

**CLEANING WOODWORK—FLOOR FINISH.**

Dear Junia,—We are fixing over our kitchen and putting in a bath-room, and will have hardwood floors in kitchen and bath-room. I wonder if anyone could tell me the nicest way to finish the hardwood kitchen floor.

Have any of the readers had any experience with light oak-grained woodwork in a kitchen? Would it stand cleaning as often as a kitchen does? It seems to me it is easier to clean than paint.

I will have to tell the readers how we fixed some of our softwood floors. First fill all the cracks with crack-filler, let dry, then give the floor two coats of yellow floor paint (the best). Lastly, give it a coat of walnut varnish stain. You will have a pretty, as well as durable floor.

L. A. R.

Beauharnois, Que.

If I had a hardwood kitchen floor, I think I should cover it with linoleum, but, of course, many prefer the bare floor. Will someone who has had experience be kind enough to answer this question?

Woodwork may be cleaned quite easily by rubbing it with a little kerosene, polishing well afterwards with clean cloths. If you dislike using the coal-oil, wash it with water to which milk has been added (1 pint milk to a gallon of water), and rub dry with soft flannel, cotton-flannel, or chamois. The natural wood should be even more satisfactory than a painted surface. If too light in color, you could stain it.

**To The Chatterers.**

House-cleaning time will be on now before we have time to turn around. Will you kindly ask me at once about anything that is troubling you in regard to this work? I will at least try to find the solution of the problem for you. Address all letters to "Ingle Nook," "The Farmer's Advocate," London, Ont.

**Brussels Sprouts.**

Blue Bird, Haldimand Co., Ont., wishes to know how to grow Brussels Sprouts. The soil should be a rich loam; in a sandy soil compost should be dug in about each plant. The seed may be sown under glass in April, and transplanted once, or it may be sown outside as soon as the ground is fit. Sow very thinly, about half an inch deep. When well up, thin out well, and transplant in June. Keep the patch clean and the surface well worked up, fertilizing with liquid manure at time of transplanting, and weekly for three or four weeks. When the sprouts begin to show, break off the leaves near them.

When it is time to use the vegetable, cut off the sprouts, leaving as much as possible of the heel in order that new sprouts may form.

**Our Scrap Bag.**

**WASH SILK.**

To make wash silk look almost like new, put a teaspoonful of wood alcohol to every pint of the water for rinsing,



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LEO SLEZAK  
Great Wagnerian Tenor



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#### THE NEW SCALE WILLIAMS CANADA'S GREATEST PIANO

"The tone is simply magnificent"—Slezak.

If you stop to consider the number of times this Piano has been used on the Concert platform, and the standing of the Artists who use it, there can be no doubt in your mind about the high position it occupies in the musical world.

Artists like CARUSO, FARRAR, HOMER, FREMSTAD, RAPPOLD, SLEZAK, SCOTTI, ELMAN, SEMBRICH and DESTINN, have chosen this great instrument for their Canadian Tours, because it is different from other pianos, and its magnificent tone is recognized as the NEW STANDARD which appeals to those who will have only the best.

Sold by reliable dealers from Coast to Coast or from factory direct.

Ask about our extended payment plan.

The Williams Piano Co., Limited  
MANUFACTURERS Oshawa, Ont.

## This Washer Must Pay for Itself

A MAN tried to sell me a horse once. He said it was a fine horse and had nothing the matter with it. I wanted a fine horse. But, I didn't know anything about horses much. And I didn't know the man very well either.

So I told him I wanted to try the horse for a month. He said "All right, but pay me first, and I'll give you back your money if the horse isn't all right."

Well, I didn't like that. I was afraid the horse wasn't "all right," and that I might have to whistle for my money if I once parted with it. So I didn't buy the horse, although I wanted it badly. Now this set me thinking.

You see, I make Washing Machines—the "1900 Gravity" Washer.

And I said to myself, lots of people may think about my Washing Machine as I thought about the horse, and about the man who owned it.

But I'd never know, because they wouldn't write and tell me. So, thought I, it is only fair enough to let people try my Washing Machines for a month, before they pay for them. Just as I wanted to try the horse. You see, I sell my Washing Machines by mail. I have sold over half a million that way.

Now, I know what our "1900 Gravity" Washer will do. I know it will wash the clothes, without wearing or tearing them, in less than half the time they can be washed by hand or by any other machine.

I know it will wash a tub full of very dirty clothes in six minutes. I know no other machine ever invented can do that, without wearing out the clothes.

Our "1900 Gravity" Washer does the work so easy that a child can run it almost as well as a strong woman, and it don't wear the clothes, fray the edges nor break buttons the way all other machines do.

It just drives soapy water clear through the fibres of the clothes like a force pump might.

So, said I to myself, I will do with my "1900 Gravity" Washer what I wanted the man to do with the horse. Only I won't wait for people to ask me. I'll offer first, and I'll make good the offer every time.

Let me send you a "1900 Gravity" Washer on a month's free trial. I'll pay the freight out of my own pocket, and if you don't want the machine after you've used it a month, I'll take it back and pay the freight too. Surely that is fair enough, isn't it?

Doesn't it prove that the "1900 Gravity" Washer must be all that I say it is?

And you can pay me out of what it saves for you. It will save its whole cost in a few months, in wear and tear on the clothes alone. And then it will save 50 cents to 75 cents a week over that in washwoman's wages. If you keep the machine after the month's trial, I'll let you pay for it out of what it saves you. If it saves you 60 cents a week, send me 60 cents a week till paid for. I'll take that cheerfully, and I'll wait for my money until the machine itself earns the balance.

Drop me a line to-day, and let me send you a book about the "1900 Gravity" Washer that washes clothes in 6 minutes.

Address me personally—C. J. Bach, The 1900 Washer Co., 357 Yonge St., Toronto, Ont.



and iron damp. Remember that wood alcohol is poison, and must be kept out of the way.

#### TO MAKE SHOES WATERPROOF.

Melt beeswax with enough sweet oil to thin it. Warm the shoes, and apply the mixture to soles and all, holding close to the fire until the beeswax soaks into the leather. The shoes will wear much longer when thus prevented from becoming water-soaked.

#### SWEET PEAS.

Plant your sweet peas just as soon as the frost is out of the ground.

#### INK SPOTS.

A mixture that will take out ink spots without injuring the color of the material, as oxalic acid, is sure to do if used on colors, is made as follows: Mix equal parts of alum and cream of tartar. Moisten with water and spread on the spots, repeating until they disappear. Rinse well and spread.

#### CURE FOR WARTS.

Rub a little castor oil on them after washing the hands; also apply at nights.

#### CURE FOR CORNS.

Apply strong acetic acid night and morning with a soft brush. Continue treatment for a week. Good for both hard and soft corns.

#### FLOWER-POT MATS.

Save old soft felt hats and make them into mats to put under flower-pots to protect tables and window sills. Also glue little circles of the felt to the end of chair-legs to protect the floors.

#### CRACKED CROCKERY.

Boil cracked crockery in skim milk and the vessels will cease to leak.

#### PIANO POLISH.

One-half pint sweet oil,  $\frac{1}{4}$  pint turpentine,  $\frac{1}{4}$  of a lemon. Shake well. Dust the piano well, apply the mixture in small quantities, and rub to a polish with chamois.

#### Easter Cookery.

Egg Salad.—Slice hard-boiled eggs, and dress them with salt, pepper, vinegar, and oil. Sprinkle them with chopped parsley, and serve. Cooked salad dressing may be used if one prefers.

Egg Omelet.—Beat whites and yolks separately. Pour the stiff whites into a well-buttered frying-pan on the stove. Pour the yolks over, without stirring. Let cook, and serve at once while very hot.

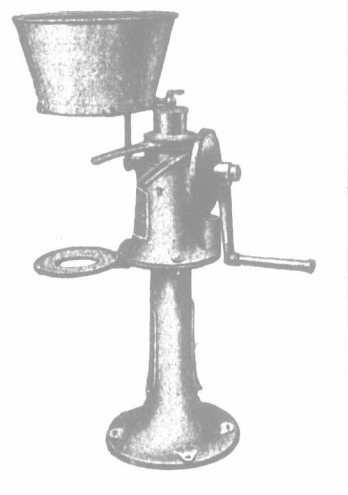
Another.—Beat 3 or 4 eggs with a tablespoon of milk or cream for each egg. Turn into a buttered frying-pan, and keep shaking the pan until the mixture sets. When done, but still creamy on top, fold the omelet over, sprinkle with pepper and salt, and serve at once, very hot. If you choose, you may sprinkle the omelet with grated cheese, or dot it with bits of jelly before folding.

Boiled Eggs.—Put the eggs in a saucepan of boiling water, and remove at once to the very back edge of the range, where the water will keep hot, but not even simmer. Keep the saucepan covered closely, and leave for ten minutes. Another way is to put the eggs in cold water and let come very quickly to a boil, removing the eggs as soon as boiling begins. Either of these ways is better than the old three minutes of hard boiling, which invariably turns the white of the egg into a leathery, very indigestible mass.

#### TRADE TOPIC.

It is significant that in these days of keen competition, the man who sells direct to the farmer from the factory, eliminating middlemen's profits, is sure of a good hearing. Mr. Dyer writes that his business this year has exceeded any under similar conditions in all his seventeen years' experience. Dyer's fence is known all over Canada for quality, and the heavy price cutting he has been giving the farmers the advantage of for the last few weeks has given a big impetus to his popularity. Dyer's cut prices will hold for a few days more, but fence conditions are likely to be normal at any time.

## The "Premier" Cream Separator



Satisfaction guaranteed to every purchaser. Thousands of satisfied users speak in highest praise of the

### "PREMIER"

The machine that appeals to you at sight

Be sure you look into the merits of the "Premier" before you buy a Cream Separator. Will be sent to your farm and demonstrated free of charge. Just write us. We are the makers and guarantors.

Address:

## THE PREMIER CREAM SEPARATOR CO'Y

659-661 King St. West, Toronto, Ont.

199 Princess Street,  
Winnipeg, Man.

117 Prince William Street,  
St. John, N. B.

MENTION THE FARMER'S ADVOCATE WHEN WRITING ADVERTISERS.

## New Telephone Directory

The Bell Telephone Company of Canada is soon to print a new issue of its **Official Telephone Directory** for the district of Western Ontario, including

### LONDON

Parties who contemplate becoming subscribers, or these who wish changes in their present entry should place their orders with the Local Manager at once to insure insertion in this issue.

### Connecting Companies

should also report additions and changes in their list of subscribers, either to the Local Manager, or direct to the Special Agent's Department, Montreal.

**The Bell Telephone Company of Canada**



# SEED OATS

Just received, some of the finest Oats we have handled in years. They test 44 lbs. to the bushel and were grown in the great Midlothian district, Scotland. Any Scot would be proud of them. ASK FOR SAMPLE.

## Regenerated Abundance Regenerated Banner

We offer them while they last in 5 bush. lots or over at \$1.30 per bush, BAGS FREE. Less than 5 bush. lots at \$1.50, bags free. Below find list of some of our

### Ontario Grown Oats

Dauboney, test 35 lbs., at \$1.25; Abundance, test 38 lbs., at 85c; Siberian, test 37½ lbs., at 85c; Bumper King, test 37½ lbs., at 90c; White Luster, test 37 lbs., at 85c; Lincoln, test 40½ lbs., at 85c. We also offer good, clean Banner Oats that test 38 lbs. to the bushel, but contain a sprinkling of barley, at 75c. per bushel. BAGS FREE.

## Barley

O.A.C. No. 21, our best lot, test 49½ lbs., at \$1.35; O.A.C. No. 21, good sample, test 48 lbs., at \$1.20. BAGS FREE.

## Clovers and Timothy

Herewith find prices good for one week from date of issue of this paper. If you live in Ontario and order 180 lbs. or more of our Clovers and Timothy, we will pay the freight to your nearest station. Otherwise our prices are ex warehouse, Toronto. Cotton Bags for Clover and Timothy at 25c.

	Gov't Stan.	Price per bush.
<b>Red Clover</b>		
"Sun" brand	No. 1	\$15.50
"Moon" brand	" 2	14.50
"Comet" brand	" 3	13.75
<b>Alfalfa Clover</b>		
"Gold"	" 1	13.00
"Silver"	" 2	12.00
<b>Alsike</b>		
"Ocean"	" 1	14.00
"Sea"	" 2	13.50
"Lake"	" 3	13.00
<b>Timothy</b>		
"Diamond"	" 1	9.50
"Crescent"	" 2	8.50
"Circle"	" 3	8.00

## Fertilizers

Order along with your seeds

Muriate of Potash	\$48.00 per ton
Sulphate of Potash	58.00 " "
Acid Phosphate	19.00 " "
Nitrate of Soda	57.00 " "

Our Catalogue tells how to mix for the different crops.

Send for Catalogue

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Seed Merchants since 1866

124 King St. East, TORONTO

# SEED

## GOVERNMENT STANDARD

All grown here in the County of Haldimand on clean clay farms.

LIGOWO Oats	\$ 70
BANNER Oats	70
SHEFFIELD STANDARD Oats	70
SCOTTISH CHIEF Oats	70
O.A.C. 21 Barley	1.10
GOLDEN VINE Peas	1.40
ALFALFA (Home Grown)	12.00
RED Clover	15.00

Bags are extra, Cotton 25c., Jute 8c.

Oats go 3 bush. to bag, heavy and clean. The O.A.C. Barley from Caledonia took First Prize at Guelph Winter Fair this year. We guarantee these seeds to satisfy you on arrival or ship them back at our expense. Cash with order. Reference any Bank.

The Caledonia Milling Co., Ltd.  
Caledonia, Ontario

## 500 bus. O. A. C. No. 21 Barley (Six rowed)

This is the heaviest yielding, longest and stiffest strawed barley ever grown in Ontario, and we have seen the leading growers and distributors to present time. Price, \$1.25 per bus; best bags, 25c.

JOHN ELDER & SON, Hensall, Ont.

## The Scarlet Pimpernel.

A STORY OF ADVENTURE.

By Baroness Orczy.

(Serial rights secured by "The Farmer's Advocate.")

By permission of G. P. Putnam's Sons.

(Continued from last week.)

### CHAPTER XV.

Doubt.

Marguerite Blakeney had watched the slight sable-clad figure of Chauvelin, as he worked his way through the ball-room. Then perforce she had had to wait, while her nerves tingled with excitement.

Listlessly she sat in the small, still deserted boudoir, looking out through the curtained doorway on the dancing couples beyond; looking at them, yet seeing nothing, hearing the music, yet conscious of naught save a feeling of expectancy, of anxious, weary waiting.

Her mind conjured up before her the vision of what was, perhaps at this very moment, passing downstairs. The half-deserted dining-room, the fateful hour—Chauvelin on the watch!—then, precise to the moment, the entrance of a man, he, the Scarlet Pimpernel, the mysterious leader, who to Marguerite had become almost unreal, so strange, so weird was this hidden identity.

She wished she were in the supper-room, too, at this moment, watching him as he entered; she knew that her woman's penetration would at once recognize in the stranger's face—whoever he might be—that strong individuality which belongs to a leader of men—to a hero: to the mighty, high-soaring eagle, whose daring wings were becoming entangled in the ferret's trap.

Woman-like, she thought of him with unmingled sadness; the irony of that fate seemed so cruel which allowed the fearless lion to succumb to the gnawing of a rat! Ah! had Armand's life not been at stake!

"Faith! your ladyship must have thought me very remiss," said a voice suddenly, close to her elbow. "I had a deal of difficulty in delivering your message, for I could not find Blakeney anywhere at first."

Marguerite had forgotten all about her husband and her message to him; his very name, as spoken by Lord Fancourt, sounded strange and unfamiliar to her, so completely had she in the last five minutes lived her old life in the Rue de Richelieu again, with Armand always near her to love and protect her, to guard her from the many subtle intrigues which were for ever raging in Paris in those days.

"I did find him at last," continued Lord Fancourt, "and gave him your message. He said that he would give orders at once for the horses to be put to."

"Ah!" she said, still very absently, "you found my husband and gave him my message?"

"Yes; he was in the dining-room fast asleep. I could not manage to wake him up at first."

"Thank you very much," she said mechanically, trying to collect her thoughts.

"Will your ladyship honour me with the contredanse until your coach is ready?" asked Lord Fancourt.

"No, I thank you, my Lord, but—and you will forgive me—I really am too tired, and the heat in the ball-room has become oppressive."

"The conservatory is deliciously cool; let me take you there, and then get you something. You seem ailing, Lady Blakeney."

"I am only very tired," she repeated wearily, as she allowed Lord Fancourt to lead her, where subdued lights and green plants lent coolness to the air. He got her a chair, into which she sank. This long interval of waiting was intolerable. Why did not Chauvelin come and tell her the result of his watch?

Lord Fancourt was very attentive. She scarcely heard what he said, and suddenly startled him by asking abruptly:

"Lord Fancourt, did you perceive who was in the dining-room just now besides Sir Percy Blakeney?"

"Only the agent of the French Government, M. Chauvelin, equally fast asleep in another corner," he said. "Why does your ladyship ask?"

"I know not . . . I . . . Did you notice the time when you were there?"

"It must have been about five or ten minutes past one. . . I wonder what your ladyship is thinking about," he added, for evidently the fair lady's thoughts were very far away, and she had not been listening to his intellectual conversation.

But indeed her thoughts were not very far away: only one storey below, in this same house, in the dining-room where sat Chauvelin still on the watch. Had he failed? For one instant that possibility rose before her as a hope—the hope that the Scarlet Pimpernel had been warned by Sir Andrew, and that Chauvelin's trap had failed to catch his bird; but that hope soon gave way to fear. Had he failed? But then—Armand! Lord Fancourt had given up talking since he found that he had no listener. He wanted an opportunity for slipping away: for sitting opposite to a lady, however fair, who is evidently not heeding the most vigorous efforts made for her entertainment, is not exhilarating, even to a Cabinet Minister.

"Shall I find out if your ladyship's coach is ready," he said at last, tentatively.

"Oh, thank you . . . thank you . . . if you would be so kind. . . I fear I am but sorry company . . . but I am really tired . . . and, perhaps, would be best alone."

She had been longing to be rid of him, for she hoped that, like the fox he so resembled, Chauvelin would be prowling round, thinking to find her alone.

But Lord Fancourt went, and still Chauvelin did not come. Oh! what had happened? She felt Armand's fate trembling in the balance . . . she feared—now with a deadly fear—that Chauvelin had failed, and that the mysterious Scarlet Pimpernel had proved elusive once more; then she knew that she need hope for no pity, no mercy, from him.

He had pronounced his "Either—or" and nothing less would content him: he was very spiteful, and would affect the belief that she had wilfully misled him, and having failed to trap the eagle once again, his revengeful mind would be content with the humble prey—Armand!

Yet she had done her best; had strained every nerve for Armand's sake. She could not bear to think that all had failed. She could not sit still; she wanted to go and hear the worst at once; she wondered even that Chauvelin had not come yet, to vent his wrath and satire upon her.

Lord Grenville himself came presently to tell her that her coach was ready, and that Sir Percy was already waiting for her—ribbons in hand. Marguerite said "Farewell" to her distinguished host; many of her friends stopped her, as she crossed the rooms, to talk to her, and exchange pleasant au revoirs.

The Minister only took final leave of beautiful Lady Blakeney on the top of the stairs; below, on the landing, a veritable army of gallant gentlemen were waiting to bid "Good-bye" to the queen of beauty and fashion, whilst outside, under the massive portico, Sir Percy's magnificent bays were impatiently pawing the ground.

At the top of the stairs, just after she had taken final leave of her host, she suddenly saw Chauvelin; he was coming up the stairs slowly, and rubbing his thin hands very softly together.

There was a curious look on his mobile face, partly amused and wholly puzzled, and as his keen eyes met Marguerite's they became strangely sarcastic.

"M. Chauvelin," she said, as he stopped on the top of the stairs, bowing elaborately before her, "my coach is outside; may I claim your arm?"

As gallant as ever, he offered her his arm and led her downstairs. The crowd was very great, some of the Minister's guests were departing, others were leaning against the banisters watching the throng as it filed up and down the wide staircase.

"Chauvelin," she said at last desperately, "I must know what has happened."

"What has happened, dear lady?" he said, with affected surprise. "Where? When?"

"You are torturing me, Chauvelin. I

## To Make Good Bread

Requires good yeast, and to have good yeast you should insist upon your grocer giving you

## WHITE SWAN YEAST CAKES

A 5c. package contains 6 cakes. Free sample sent on request.

White Swan Spices & Cereals, Limited  
Toronto, Ontario

ONE MONTH'S FREE TRIAL

## Syracuse "EASY" Washer

Washes clothes better than any other machine made, and with one-third the work. It pumps air and suds through the fibre of the clothes.

Washes anything from carpets to lace curtains. Galvanized rustproof steel tub. Lasts a lifetime. Furnished with or without gas heater on rollers.

Try it 30 days at our risk.

If you are not delighted with it, return it at our expense within 30 days. Write at once for free booklet of laundry recipes and trial order form.



AGENTS WANTED

## The Easy Washer Co.

35½ Dundas St., Toronto, Ont.

# HARAB Poultry Foods

## Make Poultry Pay

Our foods are made on our own plan from the very best materials, meat scrap bones, fresh blood, etc., put through special processes, so that while all waste is extracted, the food values still remain in a highly-concentrated form. We have eight special lines:

- Beef Scrap
- Poultry Bone
- Chick Scrap
- Poultry Bone Meal
- Beef Meal
- Blood Flour
- Red Blood and Bone Tonic
- Bone Meal and Oyster Shell Feed

We also carry a full stock of Oyster Shell Crystal Grit, Poultry Charcoal, etc., and can give you immediate delivery of any quantities.

If your dealer does not carry a stock, write us direct.

HARRIS ABATTOIR CO'Y  
LIMITED  
Toronto, - Canada



Best Varieties of Strawberry Plants for sale—Yield last season from 2 1/2 acres, 31,500 boxes.  
W. WALKER, Port Burwell.



# Cairnbrogie Clydesdales

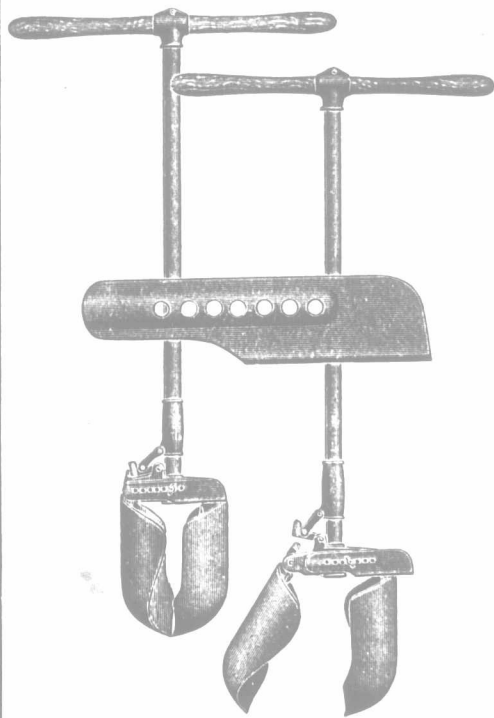
Our first importation for 1912 are in our stables—Stallions from 1 year up to 6, Fillies from 1 year up to 3. We have the size, breeding, conformation, character, quality and action that win in any company. Many of them were winners in Scotland. We have now the biggest and best selections for intending purchasers in Canada. We never had a better lot. If you want a winner for either the stud or show ring let us hear from you. True representation and a square deal is our motto.

Long-Distance 'Phone

## GRAHAM BROS.

Cairnbrogie Farm, Claremont P. O. and Stn.

### ATTENTION, FARMERS!



#### Twelve Reasons Why Standard Earth Augers Are Best

The STANDARD is the ONLY Auger

- That really bores.
- That will enter hard earth.
- That has an EXTENSION blade.
- That will hold fine dry sand.
- That does not bind in the hole.
- That opens to discharge the contents.
- That bores in all conditions of earth.
- That has double "V" point cutting blades.
- That is guaranteed to save half the time.
- That individually bores more than ONE sized hole.
- That individually bores NINE different sized holes.
- That is guaranteed to do the work with half the effort.

If your hardware or implement man cannot supply you, order direct from

**Canadian Logging Tool Company, Limited**  
Sault Ste. Marie, Canada

## Alberta Farm Land

Three hundred and twenty acres of First-Class Farm Land in the Didsbury District, located less than one mile from Canadian Northern Railway now building from Calgary to Edmonton; 1½ miles from a creamery and school; adjoining land held at \$18 to \$25 per acre. Owners must sell this spring. Will accept \$16 per acre; \$1,500 cash, balance one and two years at 7%.

WRITE:

**J. M. HUMPHREY & CO., Limited**  
CALGARY, ALBERTA

**Imp. Stallions and Mares**—Percheron, Shire, French Coach and Standard-bred, ages from 3 to 10 years. Many first prize, champion and gold medal winners at Ottawa Fair, 1911. All for sale cheap. Write or come to our barns. Terms to suit purchasers. Stallions two winters in Canada makes them much surer as foal-getters. Sixty miles from Ottawa on C. P. R. North Shore line, and one mile from C. N. R.

**J. E. ARNOLD, Grenville, Que.**

have helped you to-night . . . surely I have the right to know. What happened in the dining-room at one o'clock just now?"

She spoke in a whisper, trusting that in the general hubbub of the crowd her words would remain unheeded by all, save the man at her side.

"Nobody."

"Quiet and peace reigned supreme, fair lady; at that hour I was asleep in the corner of one sofa and Sir Percy Blakey in another."

"Nobody came into the room at all?"

"Then we have failed, you and I?"

"Yes! we have failed—perhaps . . ."

"But Armand?" she pleaded.

"Ah! Armand St. Just's chances hang on a thread . . . pray heaven, dear lady, that that thread may not snap."

"Chauvelin, I worked for you, sincerely, earnestly . . . remember . . ."

"I remember my promise," he said quietly; "the day that the Scarlet Pimpernel and I meet on French soil, St. Just will be in the arms of his charming sister."

"Which means that a brave man's blood will be on my hands," she said, with a shudder.

"His blood, or that of your brother. Surely at the present moment you must hope, as I do, that the enigmatical Scarlet Pimpernel will start for Calais to-day—"

"I am only conscious of one hope, citizen."

"And that is?"

"That Satan, your master, will have need of you, elsewhere, before the sun rises to-day."

"You flatter me, citoyenne."

She had detained him for a while, midway down the stairs, trying to get at the thoughts which lay beyond that thin, fox-like mask. But Chauvelin remained urbane, sarcastic, mysterious; not a line betrayed to the poor, anxious woman whether she need fear or whether she dared to hope.

Downstairs on the landing she was soon surrounded. Lady Blakeney never stepped from any house into her coach without an escort of fluttering human moths around the dazzling light of her beauty. But before she finally turned away from Chauvelin, she held out a tiny hand to him, with that pretty gesture of childish appeal which was so essentially her own.

"Give me some hope, my little Chauvelin," she pleaded.

With perfect gallantry he bowed over that tiny hand, which looked so dainty and white through the delicately transparent black lace mitten, and kissing the tips of the rosy fingers:—

"Pray heaven that the thread may not snap," he repeated, with his enigmatic smile.

And stepping aside, he allowed the moths to flutter more closely round the candle, and the brilliant throng of the jeunesse doree, eagerly attentive to Lady Blakeney's every movement, hid the keen, fox-like face from her view.

(To be continued.)

### "The Farmer's Advocate" Fashions

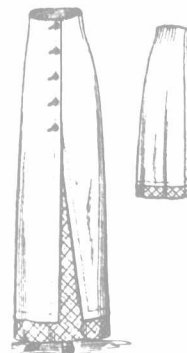


7327 Seven-Gored Skirt, 26 to 36 waist.

7333 Plain Blouse or Skirt, 34 to 42 bust.



7354 Blouse with Vestee, 34 to 42 bust.

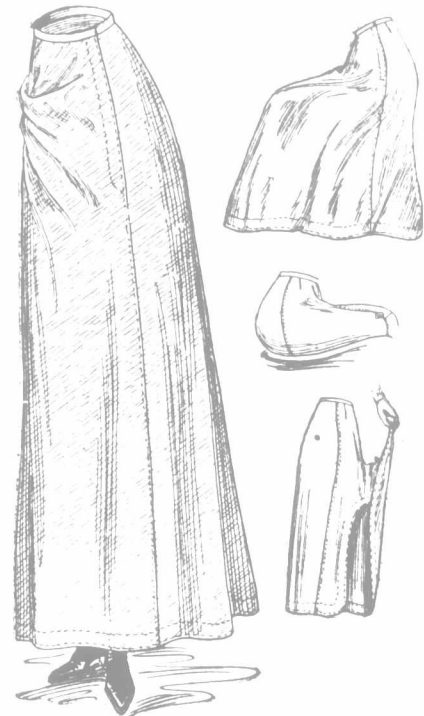


7358 Three-Piece Skirt, 22 to 32 waist.



7325 Five-Gored Pitti-coat for Misses and Small Women, 14, 16 and 18 years.

7362 Fancy Blouse, 34 to 42 bust.



71B Safety Riding Skirt, 22 to 30 waist. 4½ yds. of material 27 in. wide. 3½ yds. 44, 2½ 52, for medium size.

Please order by number, giving age or measurement, as required, and allowing at least ten days to receive pattern. Address, Fashion Dept., "The Farmer's Advocate," London, Ont.

#### WE KNOW THE KIND.

"What did Jinx say at the banquet last night?"

"Nothing."

"Why, he told me he made a speech!"

"So he did."



## News of the Week.

A course in agriculture may be established at Queen's University.

A home for feeble-minded children is proposed for Toronto.

The Experimental Farm at Ottawa has issued a bulletin warning all who are compelled to use imported potatoes to watch out for canker, which is harmful to health. It is known by protuberances at the eyes, and all potatoes found with swellings at these points should be burned. If even the skins are thrown out, they may inoculate the soil and spread the disease.

A Canadian delegation went to Washington last week to protest against further lowering of the great lakes by an enlargement of the Chicago drainage canal.

By his will, Mr. Edward Blake left \$4,000 for the publication, in popular form, of extracts from his speeches.

One hundred and sixty street cars were burned last week at the sheds of the Street Railway Co., King Street E., Toronto.

The Liberal party in Ontario has announced a definite temperance campaign as one of the planks in its platform.

The T. Eaton Company, Toronto, will erect a ten-story building at the corner of James and Albert streets.

Fifteen delegates from the West Indies arrived in Canada last week to negotiate for closer trade relations between the two countries.

The Senate passed the Manitoba boundaries bill without amendment.

A verdict of not guilty was returned by the jury in the trial of the ten Chicago packers, for violation of the Sherman anti-trust law.

Mr. Thomas MacKenzie has succeeded Sir Joseph Ward as Premier of New Zealand.

The bituminous coal miners in the United States have modified their demands, and there is a vague hope of settlement.

The British coal miners' minimum wage bill has passed into law, and work may be resumed at an early date.

The irrational actions of the window-breaking suffragettes in England has turned the body of opinion in the British Parliament against the cause of woman suffrage. By a vote of 222 to 208, the House of Commons last week, on the second reading, rejected the conciliation bill embodying the minimum demands of the women, and the announcement was received with deafening cheers. Last year a similar bill, on its second reading, was passed by a vote of 255 to 88.

### TRADE TOPICS.

A very large delivery of farm machines and implements, in which some 175 farmers participated, was made at Brantford recently. Each sleigh bore the sign, "We Use Cockshutt Implements," and, of course, the delivery was all goods manufactured by that well-known firm. The procession, headed by a band, stretched from one end of town to the other, and testified to the popularity of Cockshutt implements.

Two farms in Lambton County, Ont., near Sarnia, G. T. R., and Oil Springs, M. C. R., 93 and 100 acres, respectively, are advertised in this issue for sale, by G. G. Moncrieff, Petrolia.

### TRADE TOPIC.

The attention of readers interested in telephone instalment is directed to the advertisement on another page of this issue, of the Kellogg Switchboard and Supply Co., Chicago, whose booklets, written by practical telephone men, tell how to build and operate rural companies, and are mailed free to applicants.

An advertisement of Holstein bulls for sale at Springbank Farm, Wm. Barnet & Sons, Living Springs, Ont., proprietors, appears in this issue. This advertisement came in too late to be properly classified, and so is appearing on page 662, instead of in the columns devoted to the breed advertisements. Look it up, and write the Messrs. Barnet for prices.

A 150-acre farm in Huron County, Ontario, 1 1/2 miles from the town of Seaford, G. T. R., is advertised for sale in this issue, with 20 acres of hard-wood bush, an orchard of 90 trees, mostly winter apples, clay loam soil, well fenced, underdrained, ten-room brick house with modern conveniences, including hot water heating, good basement barn, and other buildings. Selling to close an estate.

T. H. Hassard, Markham, Ont., G. T. R., Locust Hill, C. P. R., importer of Clydesdales, Percherons and Shires, writes: I have had just landed three choice stallions, one by the champion Hiawatha, one by the champion Marcellus, one by the champion Revelanta. These are three extra stallions. I also have just added nine of the best mares I ever had in my barns, seven of them safe in foal, all extra big, and fine quality, from such noted sires as Homer's Kyle, Hiawatha, Montrave Ronald, Baron Rothschild, Imperialist, Up-to-Time, Armadale, and Moncreiff Marquis. I have in all fourteen stallions on hand, Clydesdales, Percherons and Shires, all of the right kind, combining quality with extra size, and grand action.

Every fruit-grower and orchardist knows the value of thorough spraying with an effective solution, and also understands that to accomplish the growing of fruit of first quality the material used must be thoroughly effective in combating disease and insect pests. It is claimed by the manufacturers that Avenarius Carbolineum has been used successfully as a destroyer of scale and other insects, and is also a cure for cankerous growth, black knot, and other diseases, and can also be used on wounds in pruning, and to arrest decay. It is used as a spray both winter and summer. For the summer, a solution of one-half of one per cent. strength is recommended, while in the winter the strength may be increased to as high as ten per cent. This material is placed on the market by the Carbolineum Wood Preserving Company, 182 Franklin St., New York, N. Y. See their advertisement in another column, and write them for their pamphlet on Care of Orchard and Shade Trees, which contains, besides full directions for using the spray, testimonials from satisfied users.

THE BOYS' FARMER LEAGUE.—We were pleased to have a call last week from our old friend, R. F. Macfarlane, Passenger Manager of the White Star Dominion Line, at Montreal, who has looked after the comfort of the patrons of that line for the last thirty-five years. Owing to the vast strides Canada is making in inducing colonists to settle in the Dominion, and the very large numbers carried by the White Star Dominion line, Mr. Macfarlane is devoting a very large portion of his time to immigration matters. He has noted the dearth of farm help in Ontario, and when in Great Britain in December formed an organization under the title of The Boys' Farmer League of Canada, for the sending of young men to Canada to fill this want, and has established a distributing home at Winona, Ont., which we are sure will be a great benefit to Ontario farmers, as Mr. Macfarlane, with his large experience in immigration matters, fully understands what class of young man is needed to meet the requirements of Ontario. Mr. Macfarlane is of opinion that, while a

large immigration may be expected from Great Britain this year, the numbers will not exceed those of last year.

### GOSSIP.

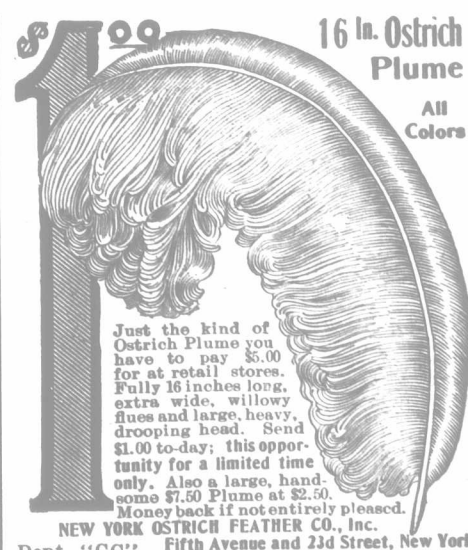
Forty-four Percheron mares sold at auction by H. C. Loury, at Nevada, Iowa, March 5th, made an average price of \$397.75. One pair of black mares sold for \$1,340, and ten others for prices ranging from \$500 to \$550.

John Miller, Jr., Ashburn, Ont., Myrtle Station, G. T. R. and C. P. R., in his changed advertisement, offers a Clydesdale mare in foal, filly rising three, two filly foals, and five young Shorthorn bulls, reds and roans, four of which are 12 to 15 months old, and one 9 months.

Col. Robert McEwen, Alloway Lodge Farm, Byron, Ont., near London, reports the lambing season in his Southdown flock finished, with fewer casualties than ever before. The Colonel writes: I am particularly pleased with this, as my ewes lambed in an open barn, and it speaks well for the vitality of the flock that the lambs stood the severe cold weather we have had. The quality of the lambs is what one would expect from mating two such proven sires as my two champion rams, McEwen '235' and Babraham Hector, with the best lot of Southdown ewes I have ever seen together. The shearing rams and ewes have come through the winter in fine condition, and show the bone and quality that make winners.

### TAMWORTHS, CLYDESDALES AND SHORTHORNS AT NEWCASTLE.

The many years in which the great Newcastle herd of Tamworth swine, belonging to A. A. Colwill, of Newcastle, Ont., were practically masters of the leading Canadian show-rings, is a matter well known to admirers of this ever-popular breed of bacon hogs. The number of prizes and championships they have won are "legion," a result attained by a most careful selection of breeding animals. Everyone versed in the history of the breed will remember that great stock boar, Colwill's Choice, whose winnings of first prize and championship ribbons was nearly enough to make a blanket to cover him. Prizewinning daughters of his, and they out of prize-winning dams, bred to that remarkable breeding hog, Imp. Cholderton's Golden Secret, has been the order of breeding in the herd of late years. The get of that great combination of breeding is what Mr. Colwill is now offering, and this is positively the last chance Tamworth breeders will have of getting that cross. The old stock hog is sold, and only the other day eight of the breeding sows went to a buyer from the West, so that no more of the daughters of Colwill's Choice are left, but there are a number of their sons and daughters from breeding age down, sired by the old imported hog, that are for sale. The number is limited, and Tamworth breeders who want the best blood the breed has ever known in Canada will have to order very soon. In Clydesdales, Mr. Colwill is offering three fillies, all eligible for registration. They are rising one, two and three years of age. The yearling and two-year-old are full sisters, sired by Imp. Lucky Ronald, a grandson of Baron's Pride, and out of Mollie of Springvale [4993], by Imp. Abbot of Berwick, and her dam by Imp. South Western. These fillies have four numbered dams; are a big, strong pair, with right nice quality of bone, that will make somebody a pair of mares above the average. The other, rising three years, is a dark brown, by the same sire, and out of Darling [4368], she by Imp. Eastfield Laddie, and her dam by Imp. The Archer. With the present-day demand for big, well-bred, breeding Clyde mares, these fillies should soon be picked up. The offering in Shorthorns is two two-year-old heifers of the old milking Syme tribe, both sired by the Diadem-bred bull, Donald of Hillhurst—44690—, by the great bull, Imp. Joy of Morning. Both these heifers are supposed to be in calf to Newcastle Tulip—81716—, and are a straight, level pair, and bred on the heavy milking lines so popular today.



**16 in. Ostrich Plume**  
All Colors

Just the kind of Ostrich Plume you have to pay \$5.00 for at retail stores. Fully 16 inches long, extra wide, willowy flues and large, heavy, drooping head. Send \$1.00 to-day; this opportunity for a limited time only. Also a large, handsome \$7.50 Plume at \$2.50. Money back if not entirely pleased.

NEW YORK OSTRICH FEATHER CO., Inc.  
Dept. "CC" Fifth Avenue and 23d Street, New York

## He Read the Papers And Knew How to Make a Will

When William Marvel, of Tuckersmith Township, Ontario, died, every person in the vicinity expected to see a lively legal battle between the heirs. Some lawyers also had expectations.

The old man had not been on good terms with any of his relatives, and was equally averse to lawyers. It was inferred that he would leave no will, and the rival claimants were ready to do battle, legally, of course, for their "rights."

One of the first things found among his papers, however, was a will made out on a BAX Will Form. That settled the matter definitely—there was no fight.

It has been found that it is useless to dispute wills made on the BAX Will Forms, the moral is obvious—to save lawyer's fees and be sure that your wishes will be carried out in case of death—use a BAX Will Form. Each form is accompanied by a specimen will and full instructions for your guidance, but be sure to get a BAX Legal Will Form, as they are copyrighted and indisputable.

For sale by all Stationers and Druggists at 35 cents, or sent on receipt of price by the BAX Will Form. Each 275 'F', College Street, Toronto.

### LAMBTON FARMS IMMEDIATE SALE

**\$2,900** 51 acres; sugar beet land; house, cement foundation; barn and drive shed (n-w); water well at house and barn; clay loam; well fenced; partly tilled; fields wheat, hay, etc.; under half mile from M. C. R. siding, near Oil Springs.

**\$4,900** 100 acres; clay loam; house, barn, out-buildings; two water wells and two windmills; orchard, hay, two fields wheat, 40 acres pasture about five miles from Petrolia; less than one mile from M. C. R. siding.

G. G. MONCRIEFF, Petrolia, Ont.

### POULTRY AND DAIRY WOMEN

With scientific and practical knowledge, would like employment on Canadian farms; also lady cook and gardener.

For particulars, address: The Guild, 71 Drummond Street, Montreal, Que.

### Island Seed Oats

The only really high-grade, absolutely safe seed oats in Canada this year. No danger frosted germs.

JOSEPH READ & COY, LTD. Summer side, P. E. Island

### \$25 Buys a Sureshut Tile Machine

Either 3 or 4 inch size. Order early and make your own cement tile for spring use. Capacity depends on speed of the operator, ranging from 300 to 500 tile per day. Send for literature.

WILLIAM JOY, Box 278, Nap-see, Ontario

**Balaphorene A. J. Jerseys**—Foundation stock, St. Lambert, Coomassie, Combination; stock from a grandson of Bim of Dentonia; also a grandson of the great Blue Blood of Dentonia, for sale. W. Wyandotte eggs, \$1 per 13. Joseph Seabrook Havelock, Peterboro Co., Ont.



NO HENS

should be kept in your flock. It is worse than money wasted; it is inhumane. Infected chickens can only lose you money. Why not keep your hen house clean, sanitary? Make it conducive to health, vigor-egg production. Avenarius Carbolinum will do it. Easily applied, permanent, cheap. Write today for free Bulletin on "How To Keep Vermin Away."

CARBOLINUM WOOD PRESERVING CO. 194 Franklin Street New York City



Condensed advertisements will be inserted under this heading at two cents per word each insertion. Each initial counts for one word, and figures for two words. Names and addresses are omitted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 30 cents.

AFTER APRIL FIFTH, eggs, 20, \$1.00; 100, \$4.50, from my famous laying Barred Rocks. R. J. Gibb, Galt, Ontario.

BARRED ROCK EGGS FOR HATCHING—One dollar per fifteen. C. H. Chalmers, Smith's Falls, Ontario.

BUFF ORPINGTONS—Winners at Guelph Winter Fair, 1911, of 1st cockerel, silver cup; specials for best shape, best male, best bird, best three cockerels and 2nd utility pen (all classes competing). Over 50% egg yield since November 1st. Eggs from pens headed by above best three cockerels, \$5.00, \$3.00 and \$1.50 per setting of 15. Mrs. E. D. Graham, Queensville, Ontario.

BUFF LEGHORNS OF HIGH DEGREE—Eggs, \$1.25 per fifteen. Write for particulars. Charles Watson, Londesboro, Ontario.

BLACK ORPINGTONS—Ottawa, Port Huron and Detroit winners. Eggs, \$3.00 and \$2.00 per setting. Rev. Geo. E. Fletcher, Cobden, Ontario.

BARRED ROCK EGGS—From well-barred bloaky, heavy-laying, prizewinning birds. \$1 for fifteen; \$2 for forty; \$4 per hundred. Chas. Hilliker, Burgessville, Ontario.

BARRED ROCKS EXCLUSIVELY—Selected eggs for hatching, one dollar per fifteen, or four dollars per hundred. A few choice cockerels for sale; price, two dollars. W. R. N. Sharpe, Ida P.O., Ontario.

BARRED ROCKS—Exclusively, pure-bred, famous winter layers. Eggs for hatching, one dollar per fifteen. H. Reynolds, Norham, Ontario.

BARRED ROCK EGGS FOR HATCHING—Bred to lay. Eggs the year round. Two dollars per fifteen. Mrs. J. R. Henry, Waterdown, Ontario.

BUFF ORPINGTON EGGS that will hatch; 9 chicks guaranteed with every setting. Three splendid pens, \$1.00 per setting. Special prices on incubator lots and fancy stock. Hugh A. Scott, Oaledonia, Ontario.

BARRED ROCK EGGS FOR HATCHING—One dollar for thirteen. Nelson Smith, Jerseyville, Ontario.

BARRED ROCK EGGS—From good, strong, healthy, vigorous birds, and barred to the skin, mated especially for winter laying, \$1 per 15, or \$2 for 40. Hens have large orchard run. Plenty of exercise should guarantee a good hatch. Hervey Culp, St. Catharines, Ontario.

CHOICE SINGLE-COMB BROWN LEGHORNS—Famous Becker & Gurney strains. Eggs, \$1.50 per 15. David A. Ashworth, Maple Grove, Ontario.

EGGS FOR HATCHING—S-C. White Leghorns and White Wyandottes, \$1.25 per 15, from pure-bred stock and heavy laying strain. Can supply Leghorn eggs (only), \$4 per 100. Hugh McKellar, Tavistock.

EGGS FOR HATCHING—Rose-combed White Wyandottes, \$1.00 per 15 eggs. Frank W. Taylor, Markdale, Ontario.

EGGS from prizewinning and laying Barred Rocks, one and two dollars per fifteen; five per hundred. Jas. Coker, Jerseyville, Ont.

EGGS FOR HATCHING—White Wyandottes and S-C. White Leghorns; mated specially for vigor. Send for mating list. P. Bartram, Grimsby, Ontario.

EGGS from bred-to-lay winter-laying White Leghorns, \$1 per fifteen; \$5 per hundred. W. A. Gurney, Box C, London, Canada.

EGGS—S-C. White Leghorns, heavy layers and prizewinners, \$1.00 per 15. A hatch guaranteed. \$4.00 per 100 eggs. Also two choice cockerels for sale. Geo. D. Fletcher, Blenheim, Ont.; Erin Sta.

EGGS—Rose-comb Rhode Island Reds; prizewinners. Owen and Shoemakers' strains, 15 for \$2.00; 50 for \$4.50; 100 for \$8.00. H. I. Smith, Comber, Ontario.

EGGS FOR HATCHING—Ontario Agricultural College, bred-to-lay strains: Barred Rock, Buff Orpington and White Leghorn. Breeding stock bred from layers selected from trap-nest records for a number of years; 15 for \$1.50; 50 or more, \$5.00 per 100. Olaves Produce Farm, Ashburn, Ontario.

EGGS from S-C. White Leghorns, \$1.00; Golden-laced Wyandottes, \$2.00 per setting. R. H. Sanders, Box 22, Ealing, Ontario.

EGGS FOR HATCHING—Barred and Buff Rocks, Brown Leghorns, Black Wyandottes, Red Caps, Buff Cochins Bants, \$1.00 per 13, \$2 der 30. A fair hatch guaranteed. Joseph Foster, Brampton, Ontario.

EGGS—\$1.50 per setting. Barred Rocks, Indian Runner Ducks. H. N. Tisdelle, Tilbury, Ontario.

EGGS FOR HATCHING—From Barred Rocks, Partridge Rocks, Rhode Island Reds, White Wyandottes, White and Brown Leghorns. Bred to lay; grow quickly; fatten readily. \$1.50 per 15; \$6.00 per 100. Norfolk Specialty Farm Co., Ltd., St. Williams, Ontario.

EGGS FOR HATCHING—Buff Orpingtons, from prizewinning stock. One-fifty per fifteen. William Groff, Beamsville, Ontario.

EGGS from exhibition Pekin, Aylesbury and Rouen ducks, \$4.00 per setting. Barred Plymouth Rock, White Wyandotte, Single-comb Black Minorcas, Light Brahma and Rose-comb Rhode Island Reds, \$3.00 per 15. Alton Stevens, Lambeth, Ontario.

FOR SALE—Fine pen White Wyandottes, 6 pullets, 6 hens, ekl. laying, \$20. Niles Halsted, Harrow, Ontario.

FREE handsome catalogue of fancy poultry—Describes and prices fifty varieties, land and water fowls. S. A. Hummel, Box 23, Freeport, Illinois.

HATCHING EGGS FOR SALE—Kellerstrass Crystal White Orpington eggs. Pullets direct from \$30.00 matings; cockerel cost \$150.00. \$5.00 for setting of 15. Also S-C. White Leghorn eggs, heavy layers, \$6.00 per 100. Glenhurst Poultry Farm, Box 609, Galt, Ontario.

HIGH-CLASS BARRED ROCKS—From first January to March fifteenth we got four thousand and forty eggs from one hundred and fifteen of our standard-bred heavy-laying Rocks. Pullets started to lay at five months and six days old. Eggs from a select pen, \$1.25 per fifteen. Charles Watson, Londesboro, Ont.

HATCHING EGGS—Single-comb White Leghorns. Size, vigor, productiveness; unexcelled eggs, dollar setting; four dollars hundred. E. W. Burt, Paris, Ontario.

I HAVE one cock in White Bearded Polish Bant, \$1.50; 1 cock, 4 hens, S-S. Hamburgs, \$10.00; 1 Red-cap hen, \$2.00. Eggs, 10 ets. each. Robert Houser, Canboro, Ont.

MONEYMATTERS—Bred to lay; S-C. Buff Leghorns; utility and beauty combined. Eggs for hatching, \$1.50 per setting; \$5 per 50. H. H. Hazett, Springfield Farm, Duncan, V.I., B.C.

ONE DOLLAR for fifteen Plymouth Rock eggs. Bred exclusively from Guelph College laying strain. Mrs. Berry, Box 22, Guelph, Ontario.

PEACHGROVE FARM offers eggs from Indian Runner ducks at 10c. each. Single-comb Rhode Island Reds, \$1.00 per 15; \$1.75 per 30. Frank Baldwin, Glanworth, Ontario.

PURE-BRED EXHIBITION BARRED ROCKS—Eggs for hatching from first winners at Elmira, Hanover, Owen Sound and Listowel. Eggs, \$1.00 and \$3.00 per 15. Write for mating list. Jas. E. Metcalfe, Hanover, Ont.

PURE-BRED WHITE ORPINGTONS—Eggs, \$2.00 for thirteen. H. Ferns, 715 Wilham St., London, Ontario.

RHODE ISLAND RED EGGS—Either comb, \$1.00 per 15; 100, \$4.50. Wm. Runchey, Byng, Ontario.

ROSE-COMB REDS—Prize stock. Eggs for hatching from number one pen, two dollars; number two pen, one dollar. Cockerels for sale. Fred Colwell, Cooksville.

REGAL WHITE WYANDOTTES—Fifty large vigorous, snow-white cockerels, at \$2 and \$3 each, worth double. Eggs from exhibition matings, \$3 and \$5 per setting; utility matings, \$9 per 100. Send 10c. for the White Wyandotte book; finest book ever published, dealing wholly with the White Wyandotte. Have won best display at New York State Fair last six years. Catalogue free. John S. Martin, Drawer F, Port Dover, Ontario.

S PRUCE GROVE Barred Rocks, R. I. Reds, White Wyandottes, S-C. Brown Leghorns, selected matings. Eggs, \$1.50 per 15. W. J. Bunn, Br. Ont.

SILVER-LACED WYANDOTTES—Prizewinners. Eggs for hatching, \$1.50 a setting. Frank McDermott, Tavistock, Ontario.

SILVER-GRAY DORKINGS—The best utility fowl. Eggs from Canada's champion flock; Pen No. 1, \$3.00 per 15; other grand matings, \$2.00 per 15. 12c. a piece for 2 settings or over. Gordon Burns, Av. Ontario.

S-C. RHODE ISLAND REDS—Prizewinning strain. Eggs for hatching, \$1.50 per 15. A few choice laying pullets for sale, at \$2.00 each. Harry C. Graham, London.

SINGLE-COMB BROWN LEGHORNS—Shoemaker strain. Grand layers. \$1.50 per setting. F. Eberleinham, Oshawa, Ontario.

S-C. WHITE LEGHORNS—Cockerels and eggs for hatching from good stock. Wm. Charlton, Iderton.

S-C. RHODE ISLAND RED PULLETS for sale. Good layers. Eggs for hatching, \$1.50 per fifteen. J. H. Stevenson, Copeville, Ontario.

ULSTER FISHILL strain of White Plymouth Rocks. Eggs, \$2.00 per 15; best pen, \$3.00 per 15. H. N. Halsted, Neustadt, Ontario.

WHITE WYANDOTTES—Eggs for hatching, \$1.00 per 15. W. Readhead, Lowville, Ontario.

WHITE WYANDOTTES—Cockerels, \$1.50; eggs, \$1 per 15. Bred-to-lay stock. J. A. Orchard, Shedden, Ontario.

WHITE WYANDOTTES—Eggs for hatching from pure white matings, Martin and Russel strains, good layers, \$1.25 per 15; \$2.00 per 30. Safety packed. Alex. McTavish, Chesley, Ontario.

WHITE WYANDOTTES EXCLUSIVELY—Bred for heavy egg production and standard points. Eggs: \$1.00 per 15. Good hatch guaranteed. Thos. F. Pirie, Banner, Ont.

\$6.41 PER HEN—Write for our beautiful fully illustrated catalogue. Photos from life. B. P. Rocks, White Wyandottes, R. C. R. I. Reds, S. C. White Leghorns. Eggs: \$1.50 per 15; \$2.75 per 30; \$7.00 per 100. L. R. Guild, Box 16, Rockwood, Ont.

60 CENT SETTINGS—Best Buff Leghorns, single. Box 645, Woodstock, Ontario.

125 Egg Incubator \$10 and Brooder with 100 Eggs. Includes description of the incubator and brooder, and contact information for Wisconsin Incubator Co.

EGGS EGGS EGGS PLEASANT VALLEY FARMS

For hatching: White Wyandottes, \$5 per 100; special mating, several prizewinners, \$3 per 15; S-C. White Leghorns, \$4 per 10; special mating, \$1.75 per 15 eggs. Grand laying strains, both varieties. GEO. AMES & SONS, Moffat, Ont. Private phone Milton.

CANADA'S CHAMPION Barred Rock Cockerels

The balance of our \$5 and \$7 cockerels at \$2.50 and \$3 each. Satisfaction guaranteed or money refunded.

JNO. PRINGLE, London, Ont. Poultry Farm Near Kingston.

Ideal conditions for poultry-raising; only one-half mile to railroad station, three and one-half miles to Kingston and 89 miles to New York City; 7 acres, slopes gently to the south; 7-roomed house; 30-ft. barn; other outbuildings. If taken now, \$1,100; part cash. Travelling directions to see this and other good farms near the Hudson River and between Albany and Buffalo. "Strout's Farm Catalogue '35," just out; copy free. We pay buyer's R. R. fares. Station 2415, E. A. Strout, 47 W. 34th St., New York.



EXPERIENCED SHEPHERD WANTED—Bow Park Farm, Brantford, Ontario.

EXPERIENCED FARM HANDS WANTED—Permanent positions for right people. Bow Park Farm, Brantford, Ontario.

FARM FOR SALE—Three hundred acres, suitable for dairy; forty cleared; all fenced; good buildings, and timber sufficient to pay for the place. Half mile from track. Price, eleven hundred. C. A. Bridgwood, Toronto.

SON OF ENGLISH GENTLEMAN wishes position with farmer of similar status on first-class farm in Ontario. Has had a year's experience on good farm in Ontario. Is not afraid of work. Replies. Ambitious, "Farmer's Advocate," London.

VANCOUVER ISLAND, BRITISH COLUMBIA, offers sunny, mild climate; good profits for men with small capital in fruit-growing, poultry, mixed farming, timber, manufacturing, fisheries, new towns. Good chances for the boys. Investments safe at 6 per cent. For reliable information, free booklets, write Vancouver Island Development League, Room A, 23 Broughton Street, Victoria, British Columbia.

WANTED—Experienced married man for farm work. Yearly engagement. House supplied. Apply: J. A. Pettit, Freeman, Ont.

WANTED—Experienced man and wife, no children, to work on farm of 107 acres by the year. Man good milker. Apply as to experience and salary to: H. M. S., Garden Hill Stock Farm, Garden Hill, Ontario.

WANTED—Cash paid for Military Land Grants in Northern Ontario. Please state price and location. Box 88, Brantford.

YOUNG MEN FOR ONTARIO FARMS

Arriving April, May. Write for application form and terms to: R. A. MACFARLANE, Boys' Farmer League, Drawer 126, Winona, Ont.

GOSSIP.

GRAHAM BROS.' NEW IMPORTATION.

T. A. Graham, of Graham Bros., Claremont, Ont., has lately landed their first 1912 importation of Clydesdale stallions and fillies. Clydesdale fanciers in Canada are wont to expect something above the average when Tom Graham arrives home with a shipment of his own selection, as he is universally conceded to be one of the best judges of Clydesdales in America, and the phenomenal success in the leading show-rings of his many past selections bears out this contention. In this lot he has done himself proud. They are certainly a high-class bunch, and parties from a distance will not be disappointed when visiting the stables. On hand, now, Graham Bros. have a big selection in both stallions and fillies, from one year old up, a selection that for breed type, draft character, flashy quality and popular breeding, was never before excelled in their horse-importing history, and coupled with it all, every one of them is true in his paces and action, very many of them winners of leading honors at prominent shows in Scotland. Any numbers given in this report will be the Canadian registration number, although all are registered and have numbers in the Scottish book. Prominent among the stallions is the great Warlabby 13282, a bay, eight years old, sired by the noted prize and breeding horse, Rozelle, by Baron's Pride, dam by the H. & A. S. first-prize horse, Prince of Clay. This is one of the greatest horses that have ever found their way to Canada. Up to a big size, he carries flashy style and quality clean down to the ground, and he moves with a true, faultless stride and all-around action that many a Hackney might envy. He is a great show horse, and has won many honors in Scotland. Another big, good horse, is the bay six-year-old, Millenside 12360, by the great sire Baron Ruby, by Baron's Pride, dam by Knight of Albion. This is another big horse of quality, and a rare mover; a horse whose kind is all too scarce in this country. Lord Archer 13284 is a brown three-year-old, by the renowned Margrave, by Hiawatha, dam by the noted prizewinner, Prince of Brunstane. This is one of the stylish, toppy horses, with the flashiest kind of quality in his underpinning. He is a winner in Scotland, and a show horse from the ground up. Golden Ball 13286 is another three-year-old, a bay, with beautiful quality and remarkably smooth throughout, a high-class horse, sired by that popular premium horse, Golden Crown, by Gold Mine, dam by Crown Them All, grandam by Sir Everard. In colts rising three years there are several, all up to a high standard of character and quality, among them being such well-bred ones as Drumalhan 13289, a bay, by the noted sire, Argosy, dam by the noted winner and sire of champions, Marnion, grandam by the £3,000 Prince of Albion. Sardello 13292, a bay, by the Kirkcudbright prize horse, Ajax, dam by Frivolity; General Hood 13291, bay, by Robin Hood, dam by Scotland's Fortune. There are several others equally as well-bred, and all up to a big size. In yearlings, there is a big show colt, Drumeroo 13290, a brown, by Clan Mc-Nee, dam by Baron's Pride, grandam by Prince Charming, and the great character colt, British Gold 13288, a bay, by the Ayr first prize and H. & A. S. third prize, British Time, dam by Glenzier. The fillies are rising two and three years of age, with one rising four. Character, quality, and faultless action, are characteristic of the entire lot. Two are got by the H. & A. S. and Edinburgh first-prize horse, Baron Hopetoun, one with dam by the H. & A. S. four-times first winner, Pride of Blacon, the other with dam by the invincible Hiawatha. These are a choice pair, and there is no better breeding. Another is by the great champion, Everlasting, and dam by the ever-popular Up-to-Time. Others are by such noted sires as Glengolan, Baron Fashion, Baron Galloway, Tomahawk, Cawdor Laird, Royal Aldie, etc., and dams by Bertrand Pride, Baldavie Chief, Baron Galloway, Prince Sturdy, Pearl Oyster, Babbler, etc., the whole making a selection unequalled in the country.



TRADE TOPICS.

THE ACQUISITION OF RICHES.

To get rich at all hazards, and to get rich quick if possible, seems to be the object to which most men are bending their energies nowadays. Even

"The humble man out yonder who is working in the ditch, Has the hope within him hidden that some day he may be rich; And forgetting all the seasons that so foolishly were spent, He keeps hoping he may profit by some lucky accident."

If it were not so, many a man who is now able to prey upon the credulity of his fellows would be compelled to seek other employment. The Chief Post-office Inspector of the City of New York, reports that last year "Members of the Suckers' List" lost seventy-seven millions of dollars investing in the get-rich-quick schemes; and it is safe to say that all the "suckers" were not caught on the other side of the line. The man who goes through life "taking a flyer" at this and that under the impression that he will some day "strike it rich," is, in 999 times out of 1,000, only wasting his money and making rapid preparation for an old age of humiliation and penury. The sooner he awakens to the fact that there is no certain short cut to riches, and that the "lucky accident" does not happen to one in one thousand, the better it will be for himself and his family. The only safe plan to adopt, if he hopes to have a competency in his old age, is to live within his income, and to systematically lay up something from his earnings, no matter how small the amount may be. If he is living beyond his means, he should keep in mind Micawber's statement, which was something like this: "Income 20 shillings, expenditure 20 shillings and 6 pence, result misery; income 20 shillings and 6 pence, expenditure 20 shillings, result happiness." If he cannot do more, he should make absolutely certain of an old age of comfort and happiness, which he may do if he will avail himself of the opportunity presented by the Canadian Government Annuities Act, in regard to which information may be obtained at any Post Office or on application to the Superintendent of Annuities, Ottawa. There is no other plan for the purpose which will give him anything like the same returns. So long as his present permanent abode is in Canada, whether he is naturalized or not, he is eligible to make the purchase.

VERY LOW RATES AND SPECIAL TRAINS FOR HOMESEEKERS.—Those taking advantage of the Homeseekers' Excursions should bear in mind the many exclusive features offered by the Canadian Pacific Railway in connection with a trip to the West. It is the only all-Canadian route. Only line operating through trains to Western Canada. No change of depots. Only line operating through Standard and Tourist Sleepers to Winnipeg and Vancouver. All equipment is owned and operated by Canadian Pacific Railway, affording the highest form of efficiency. Dining car service unsurpassed. Homeseekers' rates will be in effect April 2, 16, 30; May 14, 28; June 11, 25; July 9, 23; August 6, 20; September 3, 17, and round-trip second-class tickets will be issued via Canadian Pacific Railway from Ontario points at very low rates. For example, Winnipeg and return, \$34.00; Edmonton and return, \$42.00, and other points in proportion. Return limit 60 days. For the accommodation of Canadian Pacific Railway passengers, a special train will leave Toronto 2 p. m. on above dates, comprised of Tourist and Colonist Sleepers. Colonist Sleepers may be occupied free of charge. Passengers, however, must provide their own bedding. Tourist Sleeping cars will be operated through to Edmonton via Saskatoon, also through to Winnipeg and Calgary. A moderate charge is made for berths in Tourist cars. Both Tourist and Colonist cars are provided with cooking ranges, which trainmen have instructions to keep in condition. Full particulars from any Canadian Pacific Railway Agent. Ask for copy of Harvesters' Booklet.

# You Can Grow Bigger Crops and Better Crops

on your land if you set about to do this in an intelligent manner. There are three points to which you must give careful and particular attention: Proper Cultivation, Crop Rotation, and the Proper Use of the Right Kind of Fertilizers. To secure best results you must attend to all three of these. No matter how well your land is cultivated, or your crops regulated, unless you use in the proper way the right kind of fertilizers, you cannot secure the best results.

## HARAB FERTILIZERS

are the right kind of fertilizers. Made from animal products, they return to the land the plant food which has been taken from it. They are organic fertilizers and for this reason act much more naturally than inorganic or chemical fertilizers. This difference in action can be very well compared to the difference between the action of a food and a stimulant on a human being.

Harab Fertilizers are Foods and will have no injurious after effects. They will not sour your land.

If you have tried other brands and are dissatisfied you will do well to give our goods a trial. They bring results. If you have never tried fertilizers you will be very wise to start now by trying Harab Fertilizers. Write us for full particulars. Our goods are put up as a finely ground powder in 125 lb. sacks. Can be handled without any trouble in an ordinary seed drill, or can be scattered by hand. We guarantee our goods to contain the plant foods represented, not only with you, but with the Government.

If we have no agent near you we want one. Write us for terms, prices, commission, etc.

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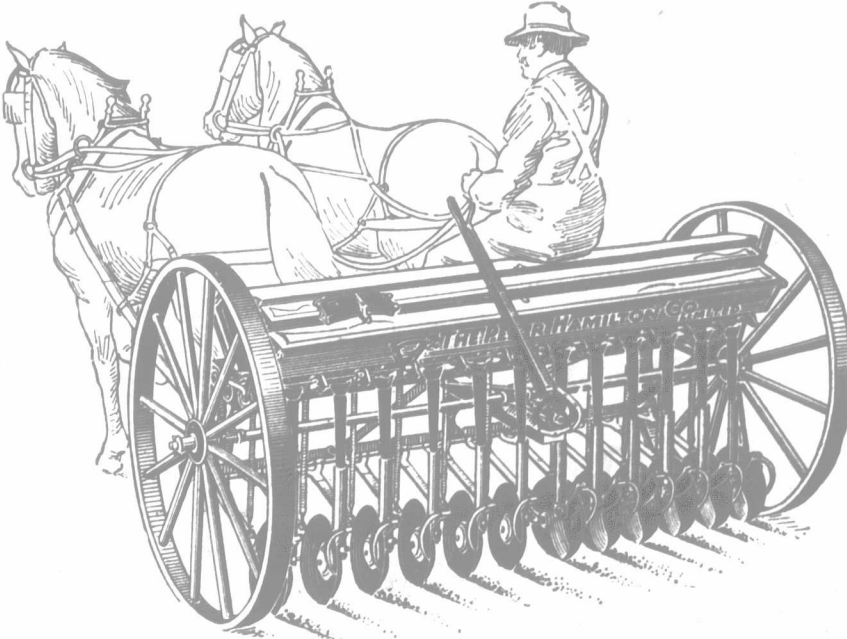
The Leader Seeder is an old favorite—tested and tried to the last furrow—prized by the successful farmer, and indispensable to the beginner. If a durable machine is wanted the Hamilton has a record that gives it first place. If an accurately built machine, easy to operate, is wanted, get the Leader, for there is none better.

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The Pressure Feed sows all kind of grain with uniform and unvarying precision.

The grain is always sown an universal depth. Nothing can interfere with this Drill's unvarying even sowing.

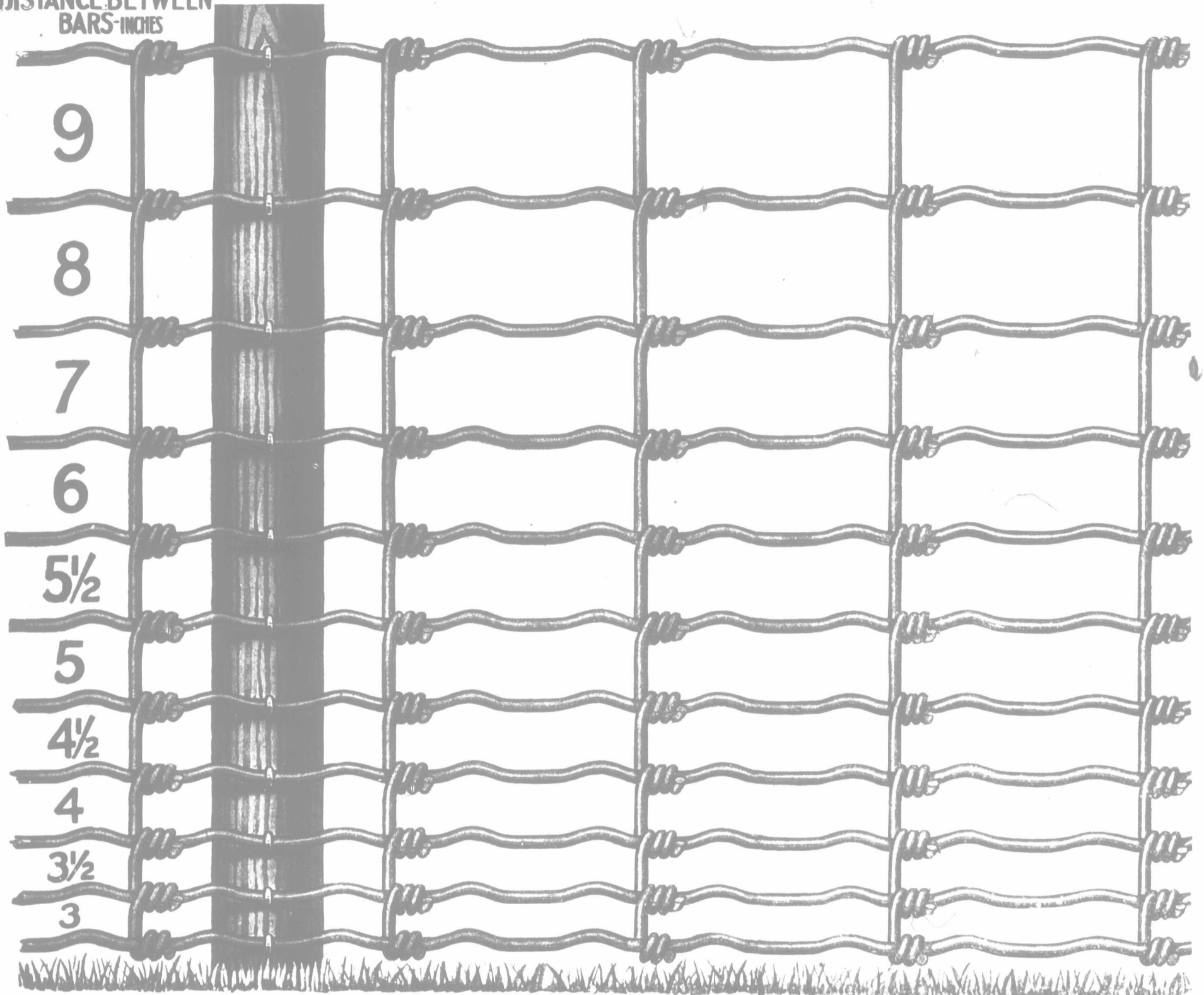
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Beware of imitations. Get the old, original, genuine AMERICAN fence.

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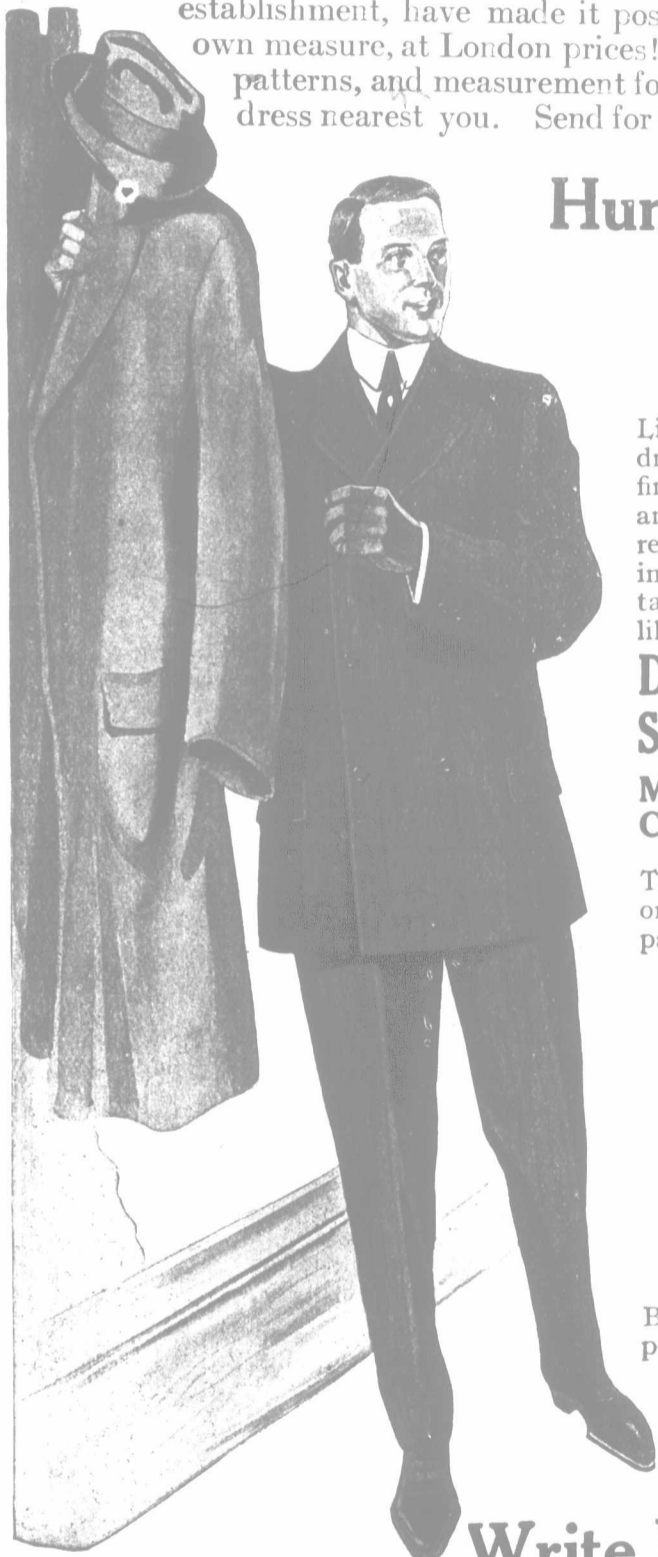
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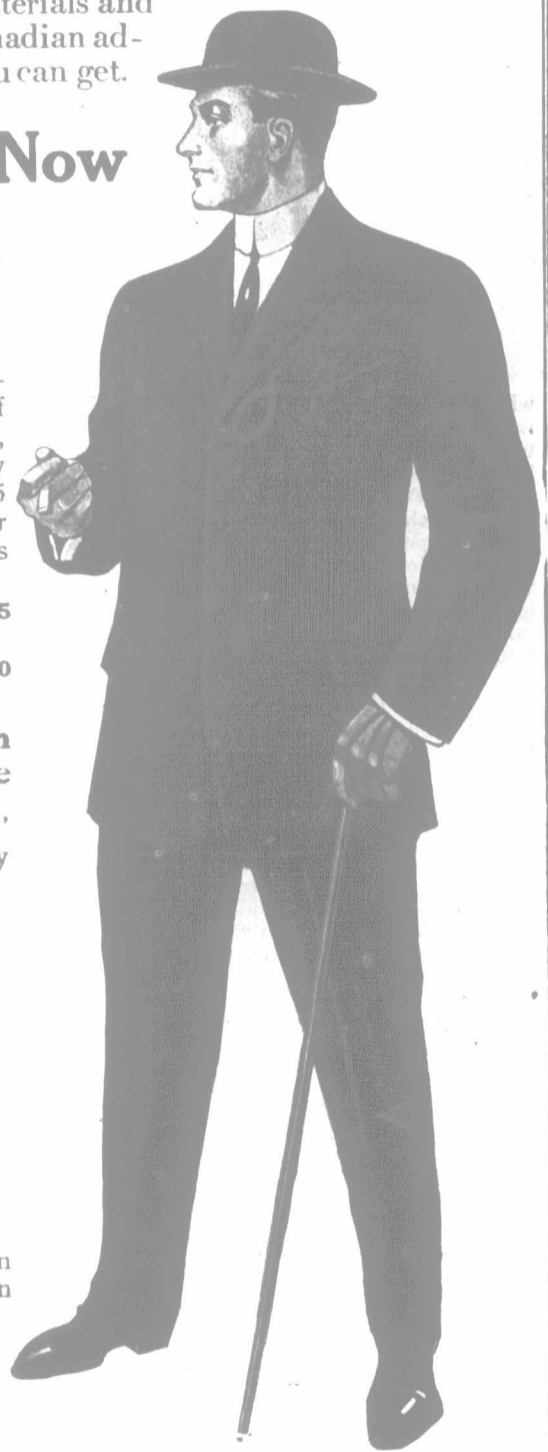
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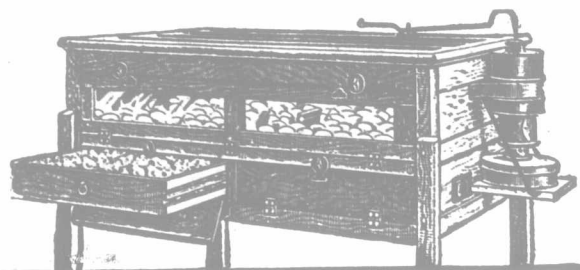
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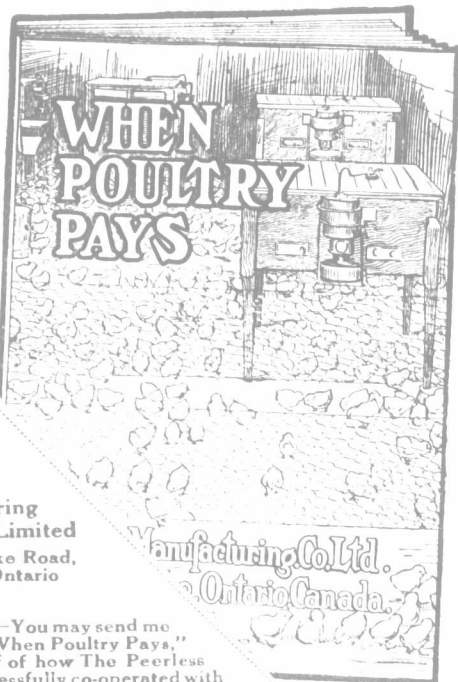


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## LET THIS INCUBATOR AND THE PEERLESS WAY MAKE POULTRY RAISING YOUR MOST PROFITABLE BRANCH OF AGRICULTURE



YOU can do it—can do just what 20,846 other farmers and poultrymen have done and are doing in Canada to-day. You can adopt The Peerless Way, take the Peerless Incubator and Brooder and with the experience that we have spent years in acquiring and which we offer you freely, double or treble your poultry-profits. Per head of population, the United States produces three dollars of poultry products to every dollar's worth produced in Canada. That means Canada should produce \$75,000,000 worth instead of \$25,000,000 worth. Canada is an under-supplied poultry market with rising prices—for example, seven years has seen the price of eggs alone just doubled. We have been so blinded with big things in Canada, that we have overlooked how really immense some of the smaller things are. The Peerless Way affords a real way to increase poultry-profits.

Let The Peerless Way Teach  
You Exactly What Profitable  
Poultrying Really Means

THE profits in any enterprise don't come from the amount of capital invested; profits come from knowledge of what to do—and, even more important—what not to do. As operators of the Poultry Yards of Canada, Limited, the largest and most successful poultry farm in the Dominion, we are prepared to teach you how to make money in poultry. You can either come to Pembroke and take a course at our poultry farm here by paying a small fee for the course—or we will teach you through the mail free all about the methods we have made so successful.

Let The Peerless Way Show  
You How You Can Meet The  
Climatic Conditions of Canada  
In Poultrying

OVER half the failures in poultrying in Canada are due to improper methods. Incubators, brooders, poultry-houses, etc., built for warm climates, never have and never will give, in the cold winters of the Dominion, the full possible results. The Peerless Way is the only system of poultry raising that gives recognition to this important fact. The Peerless Incubator and Brooder has been specially

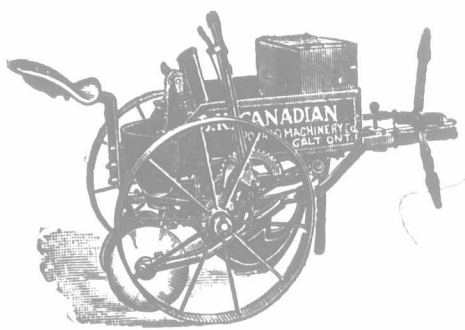
designed and built for Canadian use and the blue-prints and working-drawings furnished for the erection of poultry houses, are made from houses that have actually been used and proven successful on our own poultry farm at Pembroke.

Let The Peerless Way  
Show You About Co-operative  
Marketing And Higher Prices

MORE money for your poultry and eggs—that's the secret of greater profits! To followers of The Peerless Way—those 20,846 poultrymen who use Peerless Incubators and Brooders and have adopted our methods—we have taught co-operative marketing. We have shown them how to get top-notch prices for large or small quantities of poultry or eggs and how to sell to the best advantage. Working along the lines that we have proven to be so successful, is making an increased revenue from poultry. You, too, can have the benefit of all our experience; for our Poultry Advisory Board is ready to teach you all these things. They are ready to give you freely all the experience that has taken them years of toil and exhaustive study to acquire, ready to set you in the right track and enable you to make profits right from the minute you start. But there is not room here to tell you all about it—the book will do that. Send us the coupon and we will send you, postage paid and without charge, "When Poultry Pays".

LEE Manufacturing Co., Ltd. PEMBROKE ONTARIO  
111 Pembroke Road 41 CANADA.





**You can plant Potatoes as easily as you rake Hay — with This Machine.**

It saves you all the back-breaking labor—the weary stooping—and the tiresome days of work. This machine—which is as easy to operate as a horse rake—enables you to plant from four to six acres of Potatoes a day.

**"O.K." Canadian Potato Planter**

opens the trench, drops the seed, covers with moist soil, and marks for the next row—while you ride on the machine and drive the horses.

Not much work in this, is there? And there's money in Potatoes. The average price last years was 60c. a bushel—and in February this year, Potatoes sold for \$1.60 a bag in earload lots.

Get an "O.K. Canadian" Planter this year and plant more Potatoes.

**"O.K. Canadian Potato Cutter"**

enables you to cut from 5 to 7 bushels of potatoes an hour. Beats hand-cutting, doesn't it?

**"O.K. Canadian" Sprayer**

enables you to spray four rows of Potato Plants at once. Another time saver.

Write for descriptive catalog and book "Money in Potatoes".

We also make Cattle Stanchions, Sanitary Stalls and Water Bowls.

**CANADIAN POTATO MACHINERY CO. LIMITED, GALT, Ont.**

**The "Bissell" All-Steel Rollers**

The "Bissell" Roller is all steel except the Poles. It is braced and stayed to stand all kinds of hard work and wear well. The bottom of the frame is all steel too.

The end frame Hangers are formed from bar steel and there is no twisting or warping on "Bissell" Roller frames.

The (18) anti-friction Roller Bearings make light draught.

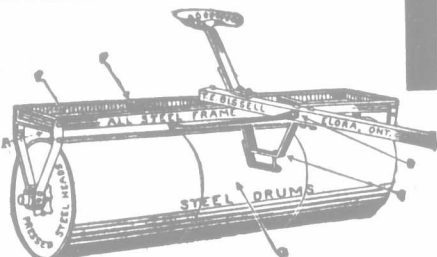
The Draw Bracket and low hitch does away with neck weight.

The Axle revolves with the drums and there is no squeaking or grinding.

The Cages holding the anti-friction rollers are the best yet; they're MADE OF MALLEABLE ALL IN ONE PIECE—no twisting or binding of the bearings on the axle of the "Bissell" Roller. The Seat Spring is reinforced and is DOUBLED AT THE HEEL.

These good features are not all of the advantages of the "Bissell" Roller. Many more good points are built into them, making a Land Roller that is "built for business," that stands up, against lots of hard work.

Ask Dept W for free catalogue.



**T. E. Bissell Co., Limited, Elora, Ont.**



Says Home Oil Tommy:

**All Goes Glidingly**

when things are oiled with HOME OIL. That's because HOME OIL is a quality oil—best every way —by every test. It took years to produce

**HOME OIL**

Made by the LIQUID VENEER People

because it first had to beat them all in the friction, heat, cold and safety tests. That's why a money-back guarantee goes with every bottle. That's why it is sold everywhere. That's why it is best for oiling outside as well as inside the home. You get more oil for your money when you buy HOME OIL. No fussy directions—just go ahead and oil.

Write for free trial bottle and prove its high quality.

**BUFFALO SPECIALTY COMPANY.**

338-D Liquid Veneer Building Buffalo, N. Y.

Free Trial Bottle



**8 PER RUNNING FOOT Ornamental Lawn Fence**

**SOLD DIRECT TO CONSUMER. FREIGHT PREPAID TO NEAREST STATION. ARTISTIC, DURABLE, INEXPENSIVE. GUARANTEED OR YOUR MONEY BACK.**

SEND FOR CATALOG

**REGAL FENCE & GATE CO. SARNIA, CANADA.**

**MARRIED MAN** wanted—Accustomed to fruit farms; must be good man with horses, and accustomed to all classes of work on fruit farm. Will provide a nice new cottage of seven rooms, large cellar, and water laid on, and land for garden, to right man. No objections to large family, if willing to work. Apply, stating experience, and give testimonials and references from previous employers in Canada.

**GLEN ATHOL FRUIT RANCH**  
David Smith, Mgr. St. Catharines, Ont.

**CREAM WANTED**

At the Guelph Creamery. Business run on the co-operative plan. Write for prices and particulars. It will pay you well. Stratton & Taylor, Guelph.

**When Writing Mention Advocate**

**QUESTIONS AND ANSWERS. Miscellaneous.**

**RYE.**

Will you please tell me, through the columns of your paper, the nature of fall rye sown in the spring? I was trying to get spring rye to sow, but cannot. I was going to sow it to plow down about July 1st, and then sow rape on the field. Will the fall rye answer the purpose as well as spring rye? Will fall rye, sown in the spring, ripen? Could the fall rye, sown in the spring, be cut for hay, and then would it come on again?

J. C.

Ans.—Fall rye, sown in the spring, should make sufficient growth to plow down as a green crop. It is doubtful whether it would ripen, except under very favorable conditions. Would not risk it for a crop to harvest. Cut for hay, it should not be harvested until in the milk stage, after which a second crop could not be expected. Cut before the shot-blade stage, it might come on again.

**CORN CRIB.**

I purpose building a corn crib and wagon shed combined, as a lean-to, against the side of 24 x 30 ft. hogpen. I intended building crib walls vertical, but have been advised to give outside wall a slant. What advantage, other than the shedding of rain, is to be had in slanting crib wall? Crib is to be 4 1/2 feet wide only, and slats on outside wall will be vertical.

E. F. T.

Ans.—There are two serious objections to your plan, viz., the danger of rats and mice entering the crib from pigpen, and the difficulty of securing satisfactory circulation of air through the corn. Years ago the writer had experience with such a crib as you propose to build, and, while it kept the corn fairly well when care was taken to sort out any soft ears before storing, still we would never build another of the same kind. For the reasons mentioned above, a corn crib should be built clear of any other structure, and set on posts protected against rats by old tin pails or other similar guard. The better to exclude rain and snow, while also facilitating circulation of air through the corn, it should be built with slatted and flaring sides about four feet wide at the bottom and five at the top. The slats are usually applied horizontally. Provide a good roof.

**ABORTION.**

Please inform me what to do for cows that have abortion. The calves come alive about two months before they are due. The cows' udders develop a few days before they abort, and the calves die in a day or two. What I wish to know is whether these same cows would be liable to the same thing next year if I breed them again this year, or would it be better to sell them to the butcher? As I am building a new stable for them next summer, if I put them in it would there be danger of them carrying the disease to it?

R. C.

Ans.—You evidently have to cope with infectious abortion, the most insidious and dreaded disease with which the cattle owner has to deal. The chances are it will run its course until spent. Fortunately, there is never anything so bad but it might be worse. As a rule, after two or three successive abortions, a cow will become immune. It is possible that by clearing out your whole herd, and buying only healthy animals next autumn, to be put into a brand-new whitewashed stable, keeping from them anything likely to spread infection, the new herd might be kept sound, but there are numerous unsuspected possibilities to the contrary. Unless deciding to adopt such rigid measures of eradication, we would suggest keeping the aborting cows, since after another abortion many of them will probably become immune, whereas, in all likelihood, new introductions might contract and thus perpetuate the disease. Breed only to your own bull, or at least to one that will not be liable to spread the disease to valuable herds. Adopt careful measures of disinfection under the direction of your local veterinarian. Calves born two months in advance of their time are usually "bawlers," and had better be killed and burned on arrival, as they are liable to spread infection.



**NOTHING in cheese making is more important than salting the curd.**

The flavor—even color—smoothness—keeping quality and market price—all depend on the way the curd is salted, and on the salt used.

**WINDSOR CHEESE SALT**

**Makes Prize Cheese**

It gives a smooth, rich flavor to the cheese—dissolves slowly—stays in the curd—and makes the cheese keep as good cheese should.

Windsor Cheese Salt is cheapest in the end because it goes further.

73C

**BEFORE BUYING GET OUR PRICES ON**

**Hay Carriers, Litter and Feed Carriers, Stanchions, etc.**

**R. DILLON & SON**  
South Oshawa, Ontario

**STAGGERING.**

She—"And so you are going to be my son-in-law?"  
He—"By Jove! I hadn't thought of that!"

**ALL COME FROM THE SAME CAUSE**

**Why Dodd's Kidney Pills Cured Mme. Dufault's Ills.**

**She Had Diabetes, Sciatica, Backache and Headache, but Found Speedy Relief in the Great Canadian Kidney Remedy.**

St. Boniface, Man., April 1st.—(Special)—After suffering for three years from a complication of diseases, Madame Oct. Dufault, of 84 Victoria street, this city, is once more in perfect health, and Dodd's Kidney Pills are credited with another splendid cure. Speaking of her cure, Madame Dufault says:

"Yes, I am again a well woman, and I thank Dodd's Kidney Pills for it. I suffered for three years, and I may say I had pains all over my body. I had sciatica, neuralgia and diabetes. My back ached, and I had pains in my head. I was nervous and tired all the time; there were dark circles around my eyes, which were also puffed and swollen, and heart fluttering added to my troubles.

"But when I started to use Dodd's Kidney Pills I soon began to get better. I took thirteen boxes in all, and I think they are a grand medicine."

Every one of Madame Dufault's ailments is a direct result of diseased kidneys. That's why Dodd's Kidney Pills so quickly cured them all.



When you reach home fatigued, a cup of

# BOVRIL

or a little BOVRIL soup will put you in good trim for your evening meal.

Dietetic experts have shown that the rapid nutritive action of BOVRIL is a valuable aid to digestion.

# ACETYLENE

Gives You More Light For Your Money

It's a fact that Acetylene, the softest, whitest, most agreeable light known, actually costs less than light from coal oil lamps! A good-sized lamp, giving 24 candle power, burns a gallon (20c. worth) of coal oil in 20 hours. That's a cent an hour.

A 24 candle power Acetylene light burns 1/4 cubic foot of Acetylene per hour, costing just half a cent.



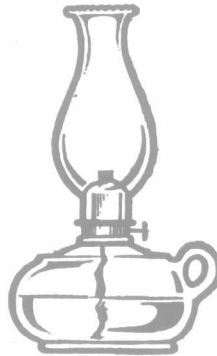
1c. per hour.

So you see Acetylene is only about half as expensive as coal oil lamps for an equal illumination.

Yet it is a bigger improvement over lamps than they are over the old-time candle. The light is whiter—better to read by—easier on the eyes.

Then there are no lamps to clean, no chimneys to break, no oil to pour, no dirty wicks to trim, none of the nuisances you have had to put up with, and many advantages you have never enjoyed.

We'll be glad to tell you just what it costs to put in and run an Acetylene lighting system, and how to go about it. Write us.



1c. per hour.

## ACETYLENE CONSTRUCTION CO., LIMITED

8 604 POWER BLDG., MONTREAL.  
Cor. McTavish and 6th Sts., Brandon, Man. — 422 Richards St., Vancouver.

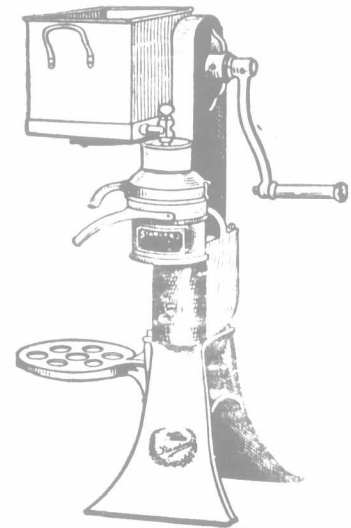
# Standard

Sprays itself with oil all the time it's running

THE self-oiling system starts spraying the working parts of the "STANDARD" Cream Separator with oil the instant you start turning the crank. It stops oiling when you stop turning. There are no glass lubricators that demand continuous attention. The "STANDARD'S" oiling system looks after itself. The oil-proof and dust-proof casing, enclosing the working parts, prevents dust and dirt clogging up the machine and oil getting on to the floors.

Because of the self-oiling system, the "STANDARD" runs easier. There is always a body of oil in the bearings—always oil between the teeth of the cog wheels when they mesh. This means that the cogs in the different gears are not subject to the ordinary wear. The less wear, the easier the separator will run, and the longer it will last.

When changing the oil in the oil chamber once every two or three months, cleanse the working parts by running a cupful of coal oil or gasoline through the machine a few minutes. That will keep your "STANDARD" running at highest efficiency. The self-oiling system is only one of the outstanding features of "the world's greatest separator." Others are described in our booklet. Write for a copy.



## The Renfrew Machinery Company, Limited

Head Office and Works: Renfrew, Ont.

SOLE BRANCHES: WINNIPEG, MAN. — SUDBURY, N. B.

## Profitable Poultry

To make a successful poultry business you should have purebred stock and good management. We can supply you with hatching eggs from the very best breeders. Write for our list of prices. Office: Send for catalogue containing prices.

J. H. RUTHERFORD, Box 67, Union East, Ont.

## QUESTIONS AND ANSWERS. Miscellaneous.

### WILD OATS.

Will you please give the best known way to eradicate wild oats and not summer-fallow. I have warm, sharp, limestone, clay bottom. It is almost impossible to get them to grow in the fall. Have been seeding to red clover, cutting early and taking a crop of seed, then plowing up. Cannot kill them this way.

J. M.

Ans.—Any method of cultivation which induces the seeds in the soil to germinate, and permits at the same time of the destruction of the plants before they have produced seed, will, in time, exterminate wild oats. They will remain in the ground a few years and then germinate. Would suggest that the land be hoed this season, and seeded down next season, leaving it down for three or four years, preferably the latter. Seed heavily with clover, and fairly heavy with timothy. If any appear in the hay, cut before they ripen sufficiently to germinate. At the end of four seasons the land should be free of them. A short rotation of crops, including a good hoed crop and a heavy clover crop, is undoubtedly the most successful method of combating this pest.

### STRAWBERRIES.

Am a very attentive reader of "The Farmer's Advocate," and have gained much information from it. One thing I should like to see printed in it is directions for growing strawberries, what kind, when to plant, etc.?

L. M.

Ans.—Strawberries are usually propagated by runners. Strawberries require a rich, well-drained soil, in good tilth. Fertilize well with barnyard manure. Some practice spring, others fall planting. The former has, on the whole, given best results. Set the plants 15 to 18 inches apart in rows 3 1/2 to 4 feet apart. Even 24 inches apart in the rows is not too much with varieties which produce large numbers of runners. Cultivation should begin as soon as possible after the plants are set, and should be deep, frequent and continued. An occasional hoeing will be necessary, and with most varieties some of the runners should be cut. No fruit should be borne the first season. The matted rows is the best way to grow strawberries in Ontario and Quebec. After permanent frost has set in, the plants should be covered with a light coat of clean straw which will not pack and smother the plants. Plantations must be renewed every two years for best results. Some good varieties for commercial use are, Splendid, Warfield, Williams, Sample, Bederwood, and Bisel. For domestic use, Splendid, Senator Dunlap, Ruby and Lovett, are recommended.

### ORCHARD PLANTING.

I expect to set out three or four acres to apple trees this spring and wish to get a few pointers, as I have not had much experience.

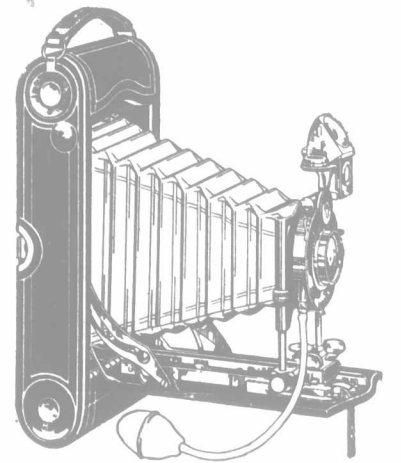
1. Would you advise setting out all Northern Spy?
2. Would they need other kinds among them to pollinize them? Some say they will not fruit planted alone.
3. Would the Stark apple do to mix with them?
4. What would you think of planting some hardy kind and top-grafting to Spy?
5. If so, which of the following kinds would you recommend: McMahon White, Scott's Winter, or Pewaukee?

H. W.

Ans.—1 and 2. The Northern Spy is largely self-sterile, and some other variety is necessary to pollinize the blossoms. It is never advisable to plant any variety in solid blocks. Plant varieties in solid rows, running them north and south, planting two, three or four rows of each variety together. Plant varieties which blossom about the same time close together.

3. Would you advise planting of Pewaukee?
4. Sometimes this works out all right, but there is a danger of getting a large number of small trees, and this is an imperfect tree and does not ripen early. Would you advise planting of McMahon White, Scott's Winter, or Pewaukee?
5. McMahon White, Scott's Winter, or Pewaukee would be good for the purpose.

If it isn't an Eastman, it isn't a Kodak.



The convenience and simplicity of the

# KODAK

as compared with a plate camera would make it worth while even if the pictures were no better—but they are.

Kodaks load and unload in daylight with film car ridges that weigh ounces where glass plates weigh pounds.

Kodak Films are superior to plates for hand camera work, not merely because they are light and non-breakable, but also because, chemically, they are made to exactly meet the harsh lighting conditions which the amateur encounters.

By the Kodak system no darkroom is required for any part of the work, not even for developing as anybody can, with out previous experience, develop films perfectly with a Kodak Film Tank, and get better negatives than are possible by the old dark-room method.

The Kodak system gives the amateur the widest possible latitude in the finishing of his pictures: He may use the daylight tank system, the dark-room method or mail his films to some professional finisher. It's just as he chooses.

Kodak's \$5.00 and up. Catalogue free at the dealers or by mail.

CANADIAN KODAK CO., LTD. TORONTO, CAN.

## Less Than \$10.00

Gives You a SUCCESSFUL Start in the Poultry Business

Why invest more? The best known, biggest selling incubator made sells for that price.

### OLD TRUSTY Incubators

Sold on 25 to 90 days' trial—all freight prepaid east of Rockies. There are 225,000 now in use—more than have ever been made by any other factories. Let Johnson send you the book and tell you for how much less than \$10.00 he will send you an Old Trusty.

M. M. JOHNSON, The Incubator Man, Clay Center, Nebraska

Name E. L. Dyer, Canadian Sales Agent and Distributor for Old Trusty Incubators, Toronto, Can.



Over 225,000 In Use GET THIS FREE BOOK

Built Exactly Alike For Big-est Average Hatches

80 to 90 Days' Free Trial East of Rockies

## 150-Acre Farm FOR SALE

In the Township of Tuckersmith, in the County of Huron, 150 and one-half miles from the town of Sarnia, which is one of the best markets in the Province of Ontario. Twenty acres hardwood bush, balance cleared. Well fenced, tile underdrained, good water and a never-failing spring creek. There is an excellent orchard of ninety trees, mostly under apples. Soil day loam. There is a ten-room brick house with all modern conveniences, including bathroom heating; telephone, woodshed and garage, fixed book barn, pig-gery, implement shed, and a well equipped other outbuildings. Selling for \$10,000.

R. T. Cresswell, Egmondville, Ont.

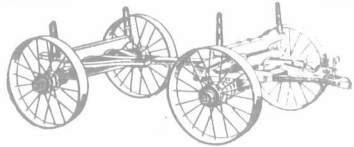
## Holstein Heifer Calves, \$12.00 Each

From a fine making, high testing, registered cow. Sold by the good bull, Cornelius De Kol.

SPANGRO STOCK FARM, ROENEY, ONT.

MENTION "FARMER'S ADVOCATE."



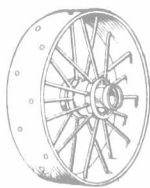


Buy a Wagon You Can Depend On!

For convenience, strength and durability—get a T-A Handy Farm Wagon. Designed especially for farm work, will give everlasting service under the roughest usage to which a wagon can be put. And besides—it is easy on horses.

T-A Handy Farm Wagons & Wide-Tire Steel Wheels

Carefully and strongly built, of the highest grade material, these T-A Wide-Tire Steel Wheels will carry 25 to 50 per cent. heavier loads without the least danger of breaking down or getting stuck.



We will be pleased to send you descriptive catalogue. Write for it.

Tudhope-Anderson Co'y, Ltd. Orillia, Ontario

WIPE YOUR FEET

Mud, snow, dust and dirt will not be tracked over your floors if you use Grab's Foot Scraper



outside your door. The only device made which cleans bottoms and sides of shoe in one operation. Has ten parallel plates for scraping soles and two stiff bristle brushes which clean sides of shoe. Adjustable to any size. Handsomely enameled. Looks neat. Can be rotated and swept under. Fastens to doorstep or any handy place. Get one and save useless work. Price \$1.00. If your dealer will not supply you, don't take substitute, but send your order direct to us. Illustrated folder FREE.

Onward Mfg. Co., Berlin, Ont. Agents Wanted Everywhere.

Two Scotchmen met and exchanged the small talk appropriate to the hour. As they were parting to go supperward, Sandy said to Jock: "Jock, mon, I'll go ye a round on the links in the morn'." "The morn'?" Jock repeated doubtfully. "Aye, mon, the morn'," said Sandy. "I'll go ye a round on the links the morn'." "Aye, weel," said Sandy. "I'll go ye. But I had intend- ed to get marriet in the morn'."

SEVERE COLD DEVELOPED INTO PNEUMONIA DOCTOR SAID HE WOULD NOT LIVE.

Next to consumption there are more deaths from pneumonia than from any other lung trouble. There is only one way to prevent pneumonia, and that is to cure the cold just as soon as it appears. Dr. Wood's Norway Pine Syrup will do this quickly and effectively.

Mr. Hugh McLeod, Esterhazy, Sask., writes:—"My little boy took a very severe cold, and it developed into pneumonia. The doctor said he would not live. I got some of your Dr. Wood's Norway Pine Syrup and he began to improve right away. He is now a strong, healthy child, and shows no signs of it coming back."

Do not be talked into buying any other Norway Pine Syrup, but insist on getting the original "Dr. Wood's." It is put up in a yellow wrapper; three pine trees the trade mark; price, 25 cents.

Manufactured only by The T. Milburn Co., Limited, Toronto, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

PLANTING RASPBERRIES.

I am intending to plant out a lot of raspberries this spring, and would like a few instructions, through your paper. That is: How many plants to an acre? How far apart the rows should be? How far apart in the rows?

E. P. F.

Ans.—Plant in rows six feet apart; plants five feet apart in the rows. At this rate of planting, it would require, approximately, 1,600 plants per acre.

ALFALFA—HAIR STIMULANT.

1. Would you kindly tell me what will make the hair grow on a horse's tail and mane?

R. R.

Ans.—1. Many horses have naturally thin or light manes and tails. The growth of hair may be stimulated to some extent by rubbing well about once a week with an ointment composed of 1 dram cantharides mixed with 2 ounces vaseline.

2. No. Some sow with about a bushel of barley, others sow it alone after a thorough fallowing up to about the middle of July, or if the land is in good condition, it can be sown earlier without a nurse crop.

TROUBLESOME HAY.

A rents a farm from B. Before B leaves the farm he makes a sale. Everything sold is to be removed from the farm before the 1st of March, 1910. At the sale C buys a mow of hay—about two or three tons. A notifies C to remove this hay two or three times, but C has not done so yet. A claims that this is a damage to him, this hay occupying the bottom of a mow. A has also notified B to remove this hay. What steps must A take? Must he sue B for the damage, or should he sue C? Or can A sell the hay to pay the damage? About what damage would be reasonable for the mow, it being a 16-ft. by 36 ft. mow?

A SUBSCRIBER.

Ontario.

Ans.—We think that A ought to notify B as well as C, in writing, to remove the hay by a date certain—to be stated in the notice, and that until same is removed, storage as well as damages will be charged. In the event of non-compliance with such notice, A might well sue both B and C. But we could not venture to estimate the amount the Court might award. And it would be too risky—for the present at all events—for A to sell the hay and retain the proceeds.

SPRAYING—CARE OF NAVEL.

1. I have a small orchard which I intend to spray. Could you tell me what mixture to use, and how many times I would have to apply it?

2. What is the proper time to spray? Could it be done with a common hand-sprayer, if the trees are not too high?

3. Should the navel cord of a foal be tied before it is cut off, or allowed to bleed (for a second or two), after it is cut off, before it is tied?

4. Would Zenoleum be all right to disinfect a stall with to prevent joint ill?

5. Would you advise disinfecting once before and once after colt is born, or two or three times before? J. M.

Ans.—1 and 2. See Spray Calendar published in our issue of March 28th, 1912.

3. In most cases it is not necessary to cut the navel cord, it either breaks, or the mare bites it off, but in some cases it is necessary, and when this is so, a cord must be tied around it above the cut to prevent bleeding. Have the cord soaked in the antiseptic carbolic acid solution, or a solution of one of the coal tar products, and tie it around the navel cord a few inches from the abdomen before making the cut.

4. Always clean out the stall thoroughly, disinfect, and put in fresh bedding.

5. Some thorough disinfecting just previous to the mare's bed is all that is necessary, provided the stall is kept clean, and the mare's feet treated a few times daily with the solution, or with carbolic acid solution, or other antiseptic and disinfectant.

Your Kitchen Walls and Ceilings



You know the trouble it is to keep the ordinary kitchen wall and ceilings clean. They get discolored with smoke, dirt and grease stains so quickly, and damp with steam. This makes the average kitchen very unsanitary and a regular breeding place for vermin.

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are made of thoroughly dried pine blocks.

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No catalog ever published approaches this new book. It tells how leading poultrymen conduct their poultry farms, gives their experience—tells the kind of equipment they use. Describes the

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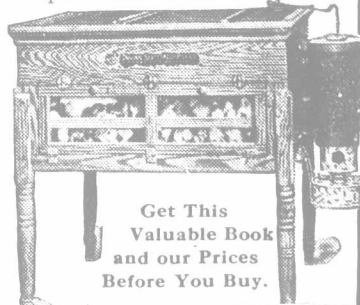

which have been the acknowledge leader for 30 years. Explains the wonderful Sand Tray, and other exclusive Prairie State Improvements that insure the hatching of "Chicks That Live". The Prairie State Universal Hover is another exclusive improvement for rearing chicks. With this device, you can build your own brooders out of an old piano box or dry goods box and save money.

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who best knows the difference in guns. The city man manages once or twice a year to get off for a day or so shooting, the farmer's hunting season knows no limit but the game laws. And crows, hawks, foxes and weasels are always his game.

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is built for use. Strongest for its weight and lightest for its strength on the market. Has few parts, and every spring, bolt and pin is made of the finest steel, tempered just right and fitted accurately.

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Our constantly growing trade demands large supplies of choice farm produce. We need yours. Write for weekly market letter.

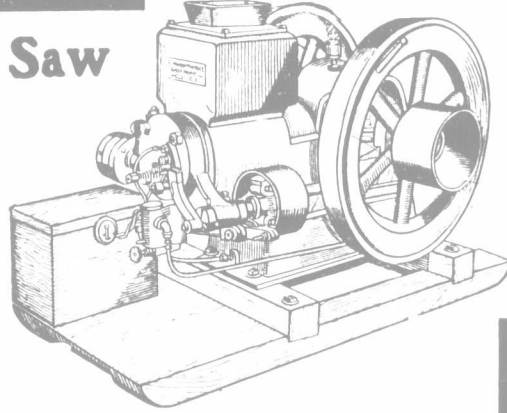
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## QUESTIONS AND ANSWERS. Miscellaneous.

### SEEING A WILL.

A widow died in Huron County twelve years ago, leaving two daughters not of age, and some grandchildren of a deceased daughter, also not of age.

1. Are they entitled to see the will or a copy when they become of age?
2. If so, how would they go about it to see it?
3. What would it cost, and who would bear the costs?

Ontario. YOUNG SUBSCRIBER.

Ans.—1. Assuming that the will has been proved in the Surrogate Court, such at least of the children and grandchildren as are now of the age of 21 years or more are entitled to see a copy of the Probate, which would include a copy of the will.

2. They should go to the Executor.
3. There ought not to be any costs in the matter.

### INFRINGEMENT OF PATENT.

1. Could I make for my own use a few stanchions (of wood bolted together) after the pattern of one that is patented, without being liable, unless I first secured the right to do so from patentee?

2. Is it lawful for one to make said stanchions so long as he makes them for his own use, and not for sale?

3. Is it lawful to make them somewhat similar, so long as they would not be exactly the same?

4. In case action was taken against one, what could the plaintiff do?

Ontario.

- Ans.—1. No.  
2. No.  
3. No—if substantially similar.

4. His appropriate remedy would be a judgment for damages, an injunction against further infringement of his patent rights, and costs of action.

### HENS AILING—SPLINTS.

1. I have about seventy hens which run at large, and have been fed on corn all winter, and can get all the clover leaves that come down when I feed the cattle. They get cold water, and I leave a box of shell in for them all the time. The hens are laying well, but I noticed one hen seems stupid, and goes around making a dreadful funny noise all the time as if she was in misery. People have told me she is egg-bound. If there is such a thing, could you tell me what to do for them?

2. We had a male bird last summer that acted much the same, and then he got so he could not crow at all, his head got dark, and he would get better and worse again, till at last he died in about a month or six weeks.

3. I have a heavy colt nearly two years old which has had a splint for about eight months. I have never done anything for the splint, for I thought it would leave. Would you advise me to treat it, or do you think it will disappear? What would you advise me to use, and what time of the year, and how to use it?

OLD SUBSCRIBER.

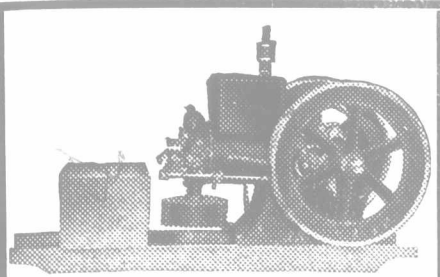
Ans.—1. Egg-bound is quite a common trouble in hens. Over-fat hens are said to be especially liable to the trouble. Treatment is not often successful. Give a dose of castor oil, and use lard on the vent. See article in our issue of March 21, page 533.

2. From the meagre symptoms given, it is impossible to state what ailed the male bird. As male birds do not lay eggs, it could not have been egg-bound.

3. In many cases splints gradually disappear by absorption, and this can be hastened by repeated blisterings. The only way in which it can be removed quickly is by an operation, which consists in castrating and securing the patient, skimming the enlargement, and removing it with a bone chisel or forceps, stitching the skin, and healing as an ordinary wound. The operation is not in all cases successful, as the irritation set up in the process causes results worse than the splint. For a blister, use two drams even of benzoide of mercury and sulphur, mixed with two ounces of turpentine. Rub the hair off the parts.

Be sure that he cannot bite them. Rub thoroughly with a blister daily for two or three days, then wash off and apply turpentine, turpentine and oil daily. Repeat the process if necessary.





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**QUESTIONS AND ANSWERS.**  
Veterinary.

**OPACITY OF CORNEA.**

Two weeks ago my horse's eyes began to run water. I blew burnt alum into them. A scum formed over the eye and remains there.  
A. L.

Ans.—This is the result of inflammation of the eye. The practice of blowing burnt alum into an eye is as cruel as it is ineffective. Dissolve 8 grains of nitrate of silver in 2 ounces distilled water, and put a few drops into the eye twice daily with a feather, or a dropper. This will probably remove the apparent scum, but it will require considerable time, hence you must exercise patience.  
V.

**LINIMENT—SWOLLEN LEGS, ETC.**

1. Give prescription for good, strong liniment that will allay inflammation and reduce all swellings, but will not blister.

2. Mare had scratches, but they are cured. Her hind legs are swollen.

3. What are the prices of Dr. Merillat's General Surgical Pathology book, Veterinary Surgical Operations book, and Dentistry and Diseases of the Mouth book?  
A. B.

Ans.—1. No liniment will allay inflammation and reduce all swellings. The following makes a good stimulant liniment: Two ounces oil of turpentine, 1/2 ounce liquor ammonia fortier, 2 ounces spirits of camphor, and alcohol to make a pint. Any strong liniment will blister if frequently applied with smart friction. In case of inflammation and swelling, the inflammation should be allayed by repeatedly bathing with hot water, and applying a cooling lotion, as 1 ounce each of sulphate of zinc and acetate of lead to a pint of water before the liniment is used.

2. Purge her with 8 drams aloes and 2 drams ginger. Give regular exercise, and keep bandages on when in the stable. The application of liniments is not wise in these cases.

3. We have never heard of these works.  
V.

**Miscellaneous.**

**WESTERN OATS FOR SEED.**

Will Western oats used for seed in Ontario, give full yield first year?  
C. C.

Ans.—Probably, if oats are of good quality, and clean.

**ALFALFA SEEDING.**

1. Would you advise sowing alfalfa in the spring on fall wheat, and at what time?

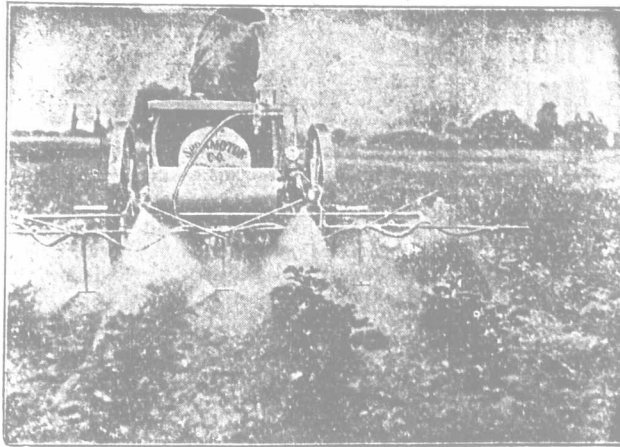
2. Would it damage the wheat to harrow the seed in?

3. I also have about three acres of clay land that I would like to try alfalfa on. It is fall plowed. Would you advise working this land down in the spring to a good seed-bed and sow alfalfa alone, or with a nurse crop? It is free of weeds. I intend top dressing with the manure spreader about twelve loads to the acre of stable manure. What time would you think best to sow?  
T. J. S.

Ans.—1. Some fair results have been obtained by sowing alfalfa on fall wheat, but, as a rule, the practice is not to be recommended. Some sow on the snow just as it is going off, and some sow later and harrow. To get a good stand of alfalfa, it is generally found advisable to sow the nurse crop rather thin. As the wheat is standard seeding it is often found to be too thick for best results. Also alfalfa seems to require to be more deeply covered than red clover seed, thus more cultivation gives better results.

2. Harrowing would not seriously damage the wheat crop. It is often practiced to benefit the crop.

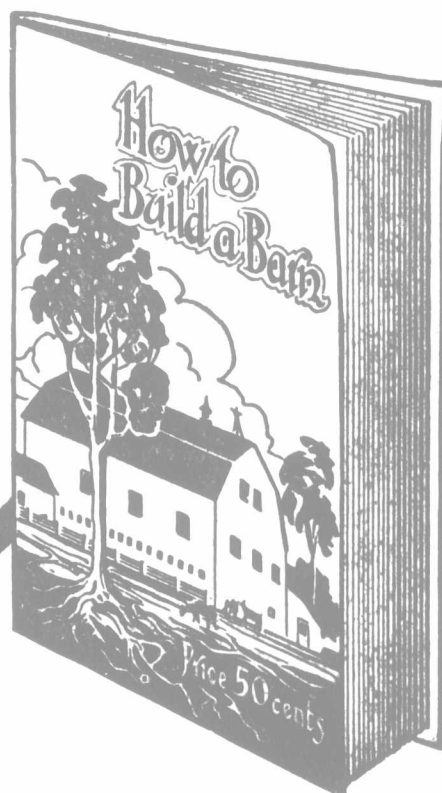
3. Good stands of alfalfa are obtained both by seeding alone and with a nurse crop. Barley sown at one bushel per acre, makes a good nurse crop, and as your land is free from weeds, and you have manure to top dress it, this would be a good method. If worked down and sown alone, the alfalfa sown early might produce a cutting during the summer. Good results have been obtained by sowing alone from first to twentieth of July. Would rather favor the use of barley nurse crop.



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Does the work with the Horse Power SPRAY-MOTOR, and does it well. Four rows, three nozzles to a row, adjustable up to 40 inch rows. Nozzles will not clog. 12-gal. air tank, automatic and hand-controlled. Guaranteed pressure of 125 pounds with all 12 nozzles working. Agitator circle on-out, pressure relief into tank, nozzle protector under driver's seat. For 1 or 2 horses. A. justable for vineyards, row crops or orchards. Write for free treatise on crop disease. AGENTS WANTED.

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F.A.



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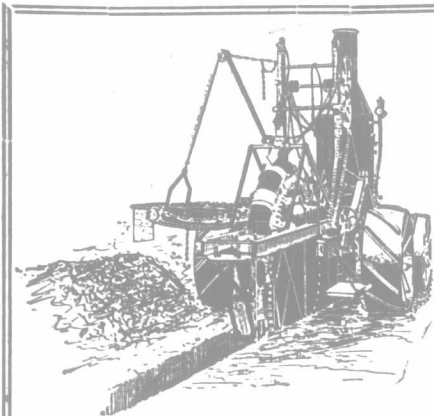
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Every farm-owner wants machine-made trenches, because they are perfect to grade, better and cheaper than hand-made ditches.

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**QUESTIONS AND ANSWERS. Miscellaneous.**

**GUM—FIRMS—ENGINE VS. WINDMILL.**

1. What are the names of some of the cement manufacturing firms who did not enter the merger?
2. Is chewing of good gums, such as Spearmint or Red Jacket, etc., injurious in any way to health, or is it beneficial, as the advertisers claim?
3. Kindly acquaint me with the names of some firms or establishments who would buy a considerable quantity of beans, also honey.
4. Which would you advise me to purchase for farm work, pumping included, a power windmill or gasoline engine?

E. G. L.

Ans.—1. Write the Provincial Secretary, Parliament Buildings, Toronto.

2. Chewing gum, or any substance, stimulates the flow of saliva, which contains active ferments which aid digestion. We doubt if long continued whether it would have any beneficial effect, and as a habit it is not the most desirable means of health improvement.

2. Wholesale seed or feed houses should handle the beans, and honey can be sold to large grocers. The only place we give names of business firms is through our advertising columns.

4. Wind power is always the cheaper, but it is not so dependable as the engine. On the whole, we would recommend the engine, but either has advantages.

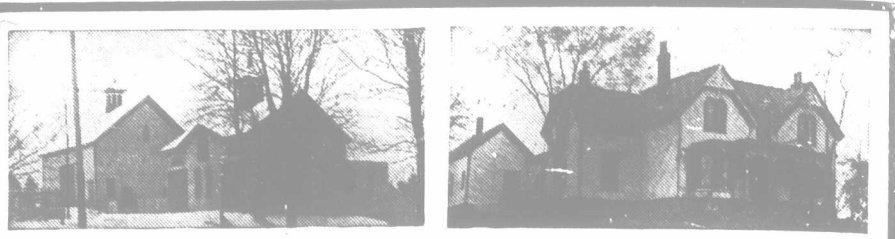
**INFECTIOUS ABORTION.**

I am satisfied that I have contagious abortion in my herd of pure-bred and high-grade Holsteins, and I would like you to please answer the following questions in your valuable paper:

1. How long after aborting would it be safe to breed?
2. What can be done to stop cows aborting the second time?
3. Where it is impossible to separate infected cows from others, how would you prevent further spread of the disease?
4. Would cows from this herd that have gone full time be likely to carry the disease if taken into another herd?
5. Would it be safe to take heifers that have never been bred into another herd?

E. B.

Ans.—1. You have to deal with the most insidious and most to be dreaded disease that Canadian cattle owners have to face. Practically nothing positively helpful is definitely known about the disease, although certain measures are usually recommended. As a rule, after two or three abortions, the disease wears itself out, the infected animals becoming immune. Short of this, about the only thing to be advised is segregation of the aborting cattle, with strict measures of disinfection, and antisepsis such as white-washing of stables, washing floors and lower part of walls thoroughly with strong creolin solution after each case, and daily, or twice daily, spraying or sponging of the external genital organs of all pregnant females; also of the bull. Aborting cows should be flushed out with occasional injections of creolin solution, not too strong, else severe straining will be caused. Burn all absorbed fetuses and afterbirth, and take great care not to convey germs on stable utensils, boots, clothing, etc. Disinfect these freely. If you wish to go further, you may have carbolic acid administered hypodermically by a veterinarian, followed by 20-drop doses on salt, or diluted with water and added to food three times daily for two or three days, then withheld, and repeated for two or three days more. The British Commission investigating this disease discredited carbolic as a specific, but many prominent dairymen are quite sure it is a valuable agent. Aborting cows should not be bred until vaginal discharges cease, and not in any event till three months have elapsed. We have a number of "together safe to" and "together safe to" cow from an aborting cow. It is a very bad disease. See Bulletin No. 10, number 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100. We are most anxious to hear from you about your experience. To assist you in your knowledge in support.

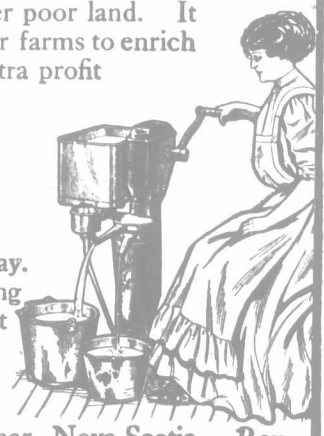


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I guarantee every Clay Gate against defects in material and workmanship. I will replace free of cost to you any parts or the entire gate giving out for such reason. **H. RALPH STELF, Manager**

**FARMERS** and stockmen who want to be free from bad-gate worries—gates which fail to keep back hogs, sheep, chickens and cattle—should use

**CLAY STEEL FARM GATES**

Clay Gates are made of high-carbon steel tubing—far stronger than gas pipe, angles, or iron pipe. They are light, simple and durable. Will never sag, bend or break. Can be set up with all tools to swing over a row, or over a level of ground. Set up through. Clay Gates pay for themselves by good service and by saving time and repairs.

**60 Days' Free Trial**

Let us send you a Clay Gate for 60 days' free trial. Try them before you buy them. Let us hear from you when we sell on the same terms. Send today for illustrated price list.

**CANADIAN GATE CO., 34 Morris St., GUELPH., ONT.**

**Seed Oats**—Lincoln, Weigh... Good cotton... J. S. B. J. Campbell, Fairview Farm, Woodville, Ont.



QUESTIONS AND ANSWERS  
Miscellaneous.

SUFFOLK SWINE.

Please let me know where I can get a Suffolk sow. I do not see any advertised in "The Farmer's Advocate."  
F. E. M.

Ans.—If there are any breeders of Suffolk swine in Canada they should advertise in "The Farmer's Advocate."

LANDLORD SELLING TIMBER.

Can a landlord sell all the timber off a farm, when the tenant is paying rent and taxes for the same, without the consent of the tenant; when it is not in the agreement, and the tenant has to get his wood to burn?  
Ontario.

Ans.—No.

LIQUOR SIGN.

An hotelkeeper holds a license to sell liquors, and over his bar-room door a sign reads: Licensed to sell Wine, Beer, and Other Fermented Liquors. Afterwards, local option passes.

1. Can he allow sign to remain?
2. If not, what is the fine?

Ans.—1. No.

2. \$20 to \$50, besides costs.

RENEWING DRY BATTERY.

I would like to know how to renew dry batteries for a gasoline engine.  
I. G. K.

Ans.—A dry battery cannot be renewed. If run down, it may be set aside for a week or two to recover, and may then be used again to furnish current, though it will not be nearly so strong as at first.

COST OF ELECTRIC GENERATOR

What would it cost to put in a twenty-horse-power electric generator, and how many horse-power would it take to run it? How would a windmill do for running one?  
SUBSCRIBER.

Ans.—It would cost in the neighborhood of \$600 to \$700, depending somewhat on local conditions, to install a twenty-horse-power electric generator. It would take about 30 to 35 h.-p. to run it. A windmill would be entirely too weak for the purpose.  
W. H. D.

STALLIONS FOR SERVICE.

Kindly publish where the best Hackney stallion may be had for service; also the largest Thoroughbred stallion you know of. Your February number gave a picture, but did not say where this horse could be seen.  
J. E. T.

Ans.—It is, of course, out of the question for us to publish such information through our editorial columns. We have advertising pages for the purpose, and the attention of pure-bred stallion owners generally is directed to this effective means of soliciting business, not only at home, but from breeders living at a distance.

LANDLORD SELLING.

A has leased his farm to B for a term of three years, the term expiring 1st of April, 1914. It was in the bargain that if A sold the farm before the term expired, he was to give B \$100 to give up possession. In drawing up the lease, A forgot to have this clause put in, but B has acknowledged that the clause was in the bargain, before A and two other witnesses. A has sold the farm now. Is B compelled to give up possession next fall?  
D. J.

Ontario.  
Ans.—Hardly, without first being paid the \$100.

BIT FOR COLT.


What kind of a bit should I use on my colt when breaking, if he wants to go; and what kind of a bit should be used on a colt that will throw up his head and stick out his nose as if to get a stick line?  
S. W. L.

Ans.—Most colts do more or less tossing of the head when breaking them, due to doubt to being unaccustomed to harness. It is good practice to "bit" a colt before harnessing or hitching him. Allow him to run in a yard with a surcingle and bridle on, and moderately exercised. This will accustom him to the bit. Unless he is wild, use a plain bit. A colt's mouth is usually tender, so guard in the mouth, and vicious, use a twisted wire bit, or a curb. The latter should be severe enough.

**Turn More Food Into Muscle**

Scientific stock raisers, writers and veterinarians all agree that, ordinarily, nearly half of a horse's ration is wasted. This would be most serious if there was no remedy, but thanks to "the Dr. Hess Idea" of feeding, some of this waste can be stopped. On account of the small ration of the horse as compared with the milk cow or steer, it is of the utmost importance that the horse's digestive organs be carefully nurtured, to enable it to get the most nutrition from its food.

**DR. HESS STOCK TONIC**



will accomplish this end, because it strengthens the horse's digestive organs, assisting the stomach to assimilate the ration more thoroughly and convert the nutritious elements into muscle and flesh. For this same reason Dr. Hess Stock Tonic is good for fattening steers, hogs and sheep, and increasing cows' milk production. The use of this tonic and conditioner will keep all your farm stock strong and healthy. Sold under this written guarantee.

**Our Proposition**—You get of your dealer a 25 lb. pail of Dr. Hess Stock Tonic at \$2.25 or 100 lbs. at \$7.00. (Duty Paid.) Use it all winter and spring. If it doesn't pay you and pay you well, get your money back. Every pound sold on this guarantee. If your dealer cannot supply you we will.

**Free from the 1st to the 10th of each month**—Dr. Hess (M. D., D. V. S.) will prescribe for your ailing animals. 66 page Veterinary Book free for the asking. Mention this paper and enclose 2c stamp.

**DR. HESS & CLARK**  
Ashland, Ohio

**DR. HESS POULTRY PAN-ACE-A.** A fowl tonic and egg producer. An absolute necessity to the setting hen. Makes the young chicks grow rapidly, prevents leg weakness, cholera, roup, gapes, etc., and cures minor poultry ailments. Been 18 years on the market under the most liberal guarantee. A penny's worth feeds 30 fowls per day.  
1 1/2 lbs. 35c; 5 lbs. 85c; 12 lbs. \$1.75; 25 lb. pail \$3.50. (Duty Paid.)  
Send 2c for Dr. Hess 48 page Poultry Book Free.

**INSTANT LOUSE KILLER KILLS LICE**



**Has Good Staying Powers**

When it comes to standing heavy strain, there is nothing like the old yoke of oxen. So in fence, there must be "reserve" strength and spring, to provide for sudden shock or severe strain.

The purpose of a fence is protection to your fields. Frost Fence is built strong in every detail. It has extra strong reserve spring provision in the horizontal wires, that gives it a springiness similar to coiled wire. It has ample strength to resist any animal that may try to get through, and its spring keeps it tight and straight all the year round. It is an honest fence in every particular and will give you best returns for your outlay.

Our double knot, or lock, gives it a neat and distinct appearance. Every foot of Frost Fence has the same springiness and resisting power. You cannot get good service from a fence that lacks reserve spring, for sooner or later it is bound to become slack.

Compare a good stretch of Frost Fence, with any other kind, and you will see the better value we put into it. We could easily make a fence to sell as low as the lowest, but we prefer to produce a fence that will continue to give satisfactory service long after the so-called cheaper fence has lost its usefulness. We know that satisfied customers are the best advertisement we could have. This is what has enabled Frost Fence to reach such a large sale, and we intend to continue making the best fence possible. If you want to get the best returns for your money, it will pay you to invest in a Frost Fence. Talk it over with our agent, or write us for further particulars.

**FROST WIRE FENCE COMPANY, LIMITED**  
Hamilton, Ontario. Branch: Winnipeg, Manitoba

We Make Our Own Wire.  
It is All Hard Steel. It is Full Gauge and Heavily Galvanized. 38

**"Frost" Fence**

BIBBY'S CREAM EQUIVALENT RAISE CALVES WITHOUT MILK

**CALF MEAL**

**BIBBY'S TESTS THE BEST AND CONTAINS TWICE AS MUCH FAT AS OTHERS**

SOLD BY ALL DEALERS WM. RENNIE CO. LIMITED, TORONTO



## MANY A GOOD FARM HORSE IS RUINED

By standing in a wet, sticky coat of hair. Experience proves that the coughs, colds and other troubles that affect horses in the spring, can be avoided by clipping off the winter coat before the spring work begins. Clipping improves the appearance of horses, they bring more if offered for sale, they do better work too, because they dry out quick, rest well and get more good from their feed. The easiest, quickest way to clip is with a

### STEWART Ball Bearing Machine

It clips horses, mules and cows without any change whatever.

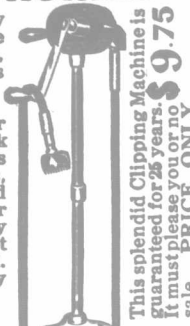


About the udders and flanks of all cows should be clipped every three or four weeks so the parts can be kept clean when milking.

Complete \$9.75

Get one from your dealer or send \$2 and we will ship C.O.D. for balance.

Write for complete catalogue Chicago Flexible Shaft Co. 110 La Salle Ave CHICAGO



This splendid Clipping Machine is guaranteed for 2 years. \$9.75. Write for catalogue. PRICE, ONLY.

## ABSORBINE

will reduce inflamed, swollen joints, Bruises, Soft Bunches, Cure Boils, Pail Evil, Quitor, Fistula or any unhealthy sore quickly; pleasant to use; does not blister under bandage or remove the hair, and you can work the horse. \$2 per bottle, delivered. Book 7 is free. ABSORBINE, J.R., Liniment for mankind. Reduces Painful, Swollen Veins, Gout, Wens, Strains, Bruises, stops Pain and Inflammation. Price \$1.00 per bottle at dealers or delivered. Will tell you more if you write. Manufactured only by W. F. YOUNG, P. D.F., 288 Lyman Bldg., Montreal, Ca.

Messrs. Hickman & Scruby  
COURT LODGE, EGBERTON, KENT, ENGLAND  
EXPORTERS OF PEDIGREE

### Live Stock of all Descriptions.

ing the spring months we shall be shipping large numbers of Percherons, Shires, Belgians, Clydesdales, Suffolks, etc., and all those who wish to buy imported stock should write us for full particulars.

NOTICE TO HORSE IMPORTERS  
GERALD POWELL

Commission Agent and Interpreter  
Nogent Le Rotrou, 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: Imp. Clydesdale Stallion  
[4785] (12697) S. S. B. Pri ce Cairnbrogie, Snow horse. Good stock getter. Sired by Prince Thomas. Can be seen at Allan Baker's Greensville P. O., Ont. Dunfermline, G. T. R., 1 m. le.

"I have nothing but praise for our new minister." "So I noticed when the plate came 'round."

## Suffered With Nerve Trouble For Two Years.

WAS IMPOSSIBLE FOR HIM TO SLEEP.

Mr. Chas. W. Wood, 34 Torrance Street, Montreal, Que., writes:—"For two years I suffered with nerve trouble, and it was impossible for me to sleep.

It did not matter what time I went to bed, in the morning I was even worse than the night before. I consulted a doctor, and he gave me a tonic to take a half hour before going to bed.

"It was all right for a time, but the old trouble returned with greater force than before.

"One of the boys, who works with me, gave me half a box of Milburn's Heart and Nerve Pills. I took them and I got such satisfaction that I got another box, and before I finished it I could enjoy sleep from 10 p.m. until 6 a.m., and now feel good."

The price of Milburn's Heart and Nerve Pills is 50 cents per box, or 3 boxes for \$1.25. They are for sale at all dealers, or will be mailed direct on receipt of price by The T. Milburn Co., Limited, Toronto, Ont.

## QUESTIONS AND ANSWERS. Miscellaneous.

### BUTTER FROM BUTTER-FAT.

Does a pound of butter-fat make a pound of solid butter? D. M.

Ans.—A pound of butter-fat should make, on the average, about 1½ pounds of butter, after allowing for usual percentage of loss in skim milk and butter-milk.

### LAME MARE.

We have a driving mare, rising three years old, that was driving and goes lame and swells on pastern joint. Would it be wise to blister it or not; if so, what kind of blister? SUBSCRIBER.

Ans.—The description of the trouble is so meagre that it is not possible to be sure in diagnosing the case. The question does not state whether it is the front or back pastern. A good blister can be made of two drams each of biniodide of mercury and cantharides mixed with two ounces of vaseline. Tie so she cannot bite the parts, rub well with the blister daily for two days, then apply sweet oil. Oil daily now, and let loose in a box stall.

### DOUBLE CUTAWAY DISK.

Would you kindly let me know what you think of the double cutaway disk harrow as a machine for preparing a seed-bed, and whether it is heavy as to draft. Would two horses haul it, or would it need three? I see you have been using them at your farm, "Weldwood." M. K. R.

Ans.—We wonder where you saw that we have been using such an implement at Weldwood? It is entire news to us. In our last Christmas number we illustrated a double cutaway disk in connection with an article by J. H. Gridale, on "The Large Implement as a Labor Saver." Prof. Gridale speaks highly of it, but for ourselves we have no practical knowledge concerning it. The idea appeals as being a means of providing for effective work by four horses handled by a single teamster.

### RASPBERRIES—TOMATOES.

1. For the past few seasons I have made a hotbed every spring. I sow my tomato seed in it usually the first of April. When two inches high I transplant, allowing each plant four square inches. My plants are good, but they usually get about fourteen inches high before it is time to plant them out. I have been advised to nip the tops off them. When and how should that be done?

2. When is the right time to cut tops off red raspberry canes? A. L.

Ans.—1. The best time to nip the tops to promote branching and more stocky growth is at the time the first fruit buds appear in the crown of the plant. Nip these out, and keep them out until the plants branch out lower down.

2. Raspberry pruning should be done immediately following the fruiting season. Shortening the canes to cause them to make more stocky growth can be done early in the spring.

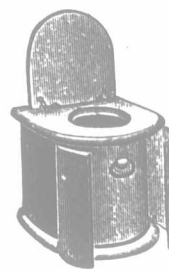
### RYE BUCKWHEAT.

I have been watching "The Farmer's Advocate" for any information on rye buckwheat, as I saw an account of its wonderful yields in your paper about a year ago, and tried to get some, but could find no seedsmen about here who ever heard of it, and, in fact, some of them told me there was no such thing. Would like to know the amount of seed to sow per acre, and about what time to sow, or if sandy loam is favorable? R. H. A.

Ans.—In experiments carried on at the Ontario Agricultural College over a period of six years, the variety known as Rye, or Rough Buckwheat, yielded on an average 8½ bushels per acre more than the Common Grey variety, which gave the next highest yield. The Rye Buckwheat is a very heavy producer of grain, but does not yield as much straw as the other varieties. It is also first in weight of grain per acre, and first in weight of straw per acre. Sow at the same time as for other varieties, and use the same amount of seed. Sandy loam is a good buckwheat soil if in good condition. About July first is a good time to sow, and from one-half to one bushel per acre is a good seedling, about three pecks being commonly used.

## Red Cross Chemical Closets

No Water Required or expensive plumbing.  
Easily Installed anywhere in your home.  
Inexpensive to Operate and Positively Guaranteed.  
Odorless and Sanitary.  
Write for catalogue E.



Red Cross Sanitary Appliance Company  
(Inventors and Sole Manufacturers), GRIMSBY, ONT.

## Stallions! Stallions! Stallions!



THE first chance and the last chance this season for you, Mr. Percheron Stallion Buyer, to get the goods at the lowest price on record, considering quality; and as I am cleaning out to make room for new importation, I am offering your choice of six perfect horses at unheard prices. Providing you come here and take a look. It will pay you to come 2,000 miles to see me on this offer. Remember, I stand on past performances, and I have a record not to be ashamed of. I have the goods, don't forget that, and if you are thinking of buying a horse, don't overlook me. Here is an offer: Come here, take a look, if you don't buy I will pay your way one way, if you do buy I will pay your way money or credit you can take home the best horse both ways. If you have money or credit you can take home the best horse in Canada for the money. Remember, I have the big horses.

JOHN HAWTHORNE, Simcoe, Ontario

## GRAHAM & RENFREW COMPANY CLYDESDALES AND HACKNEYS

Our winnings at all shows are your guarantee that whatever you buy from us will be the best in the land. You cannot afford to buy without first seeing our importations.  
Address all correspondence to Bedford Park P.O., Ont. Telegrams to Toronto. Telephone North 4483, Toronto.

## Bickmore's Gall Cure

The old-time remedy for keeping horses in condition. Don't lose the services of your high-priced horses. Bickmore's Gall Cure cures Galls and Sore Shoulders while the horse works. Approved remedy for Cuts, Wounds, Scratches, Grease Heel. Sold by dealers, money back if it fails. Gray horse trade mark on every box. Sample and valuable 84-page horse book sent on receipt of a stamp for postage.  
WINGATE CHEMICAL CO., Canadian Dist'r, 888 Notre Dame St. W., Montreal, Can.

IMP. CLYDESDALE STALLIONS AND FILLIES  
In my late importation of Clydesdale stallions and fillies I have exceptionally choice breeding idea draft characters; as much quality as can be got with size, and I can undersell any man in the business. Let me know your wants.  
GEO. G. STEWART, Howick, Que. L.-D. Phone.

Clydesdales, Imp., Just Arrived  
Our new importation has arrived safely, and we are now in a position to supply the trade with stallions from 1 year old up to 4, with more draft character, big, strong, flat bone, and better breeding than any other firm in the trade. Prices and terms as favorable as any other importer in Canada.  
BARBER BROS., GATINEAU PT., QUEBEC, NEAR HULL

ORMSBY GRANGE STOCK FARM, Ormstown, P. Que.

A large importation of specially-selected 2-year-old stallions, fillies and show mares. Will arrive early in May.

D. MCEACHRAN, PROPRIETOR

CLYDESDALES (Imported) CLYDESDALES  
SPRING HILL Top Notchers. Stallions, mares and fillies. 65 per cent. guarantee with stallions. Every mare guaranteed in foal. Ages, 3 years old and upwards.  
J. & J. SEMPLE Milverton, Ontario, and La Verne, Minnesota

Shire Stallions and Mares, Shorthorn Cattle (both sexes); also Hampshire Swine. Prices reasonable.  
Porter Bros., Appleby, Ont., Burlington Sta. Phone.

BIG QUALITY CLYDESDALES  
We have them on hand imported this year, Stallions and Fillies, many of them winners, the best blood of the breed, with size, character and quality. There are none better and no firm can sell cheaper.  
R. NESS & SON, Howick, Que.

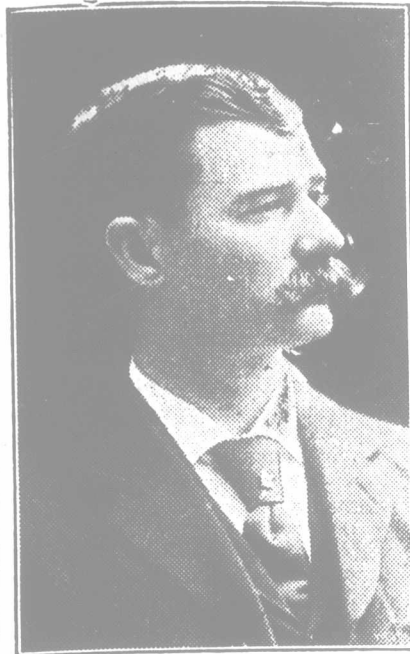
16 Clydesdale Stallions and Fillies  
5 years and under. Some winning in Scotland and Canada. Bred from such noted sires as Hiawatha, Everlasting, Prince of Carrochan and Baden Powell—horses that will make a ton, with quality. Prices right. W. B. ANNETT, ALVINSTON, ONTARIO  
Wattford station, G. T. R., 30 miles west of London.

IMPORTED CLYDESDALES  
I have for sale mares and fillies, from foals up to 5 years of age; richly bred and big in size; a number of them in foal; matched pairs, the kind to make you money. They will be sold at prices that defy competition.  
L.-D. phone. ALEX. F. MCNIVEN, St. Thomas, Ont.

Imp. Clydesdale Stallions of Size and quality  
Our latest importation of Clyde stallions include several that were 1st prizewinners in Scotland. We have then from one year old up, of choicest breeding, big, flashy quality fellows, full at heart, hard on their feet. Our prices are the lowest, and our terms the best.  
L.-D. phone. LAWFORD S. McLACHLAN, Theford P. O. and Sta.

John A. Bagge & Son, New Farm, Queensville, Ont.  
On the line between Ontario and Pennsylvania. Long-distance Phone.





WESTON, ONT. BRANDON, MAN'

**J. B. HOGATE**  
DIRECT IMPORTER  
**Percherons and Clydesdales**

My barns at Weston and Brandon are full of Percherons—stallions, mares and fillies and Clyde stallions—the very best that money could buy, in both greys and blacks, ages from two to five years. The stallions weighing from 1,700 to 2,200 lbs.; the mares from 1,600 to 1,900 lbs., some safe in foal.

In order to get my Weston barn sold out, so that I may go to my Brandon barn, no reasonable offer will be refused. Write, and come early, and get a bargain in a first-class stallion or mare.

TERMS TO SUIT. For further particulars write:  
**J. B. Hogate, West Toronto, Ont.**

J. B. HOGATE, WESTON, ONT.

**PERCHERON STALLIONS**



Prizewinners. We still have a few Percheron stallions to offer, among them being the first-prize three-year-old at the Toronto Exhibition last September, and the first-two-year-old at the Dominion Exposition, Regina, last August.

We don't sell all our best horses first, and can show intending buyers ton horses of the finest quality, both blacks and greys, and right in every way.

We are not looking for fancy prices, and these horses will be all sold worth the money.

Guarantee and terms the best obtainable.  
Phone, write or wire.


**HODGKINSON & TISDALE**  
Simcoe Lodge, Beaverton, Ont.

**Union Stock Yards of Toronto, Ltd.**

**HORSE DEPARTMENT**  
Auction Sale Every Wednesday Private Sales Every Day  
Railroad Loading Facilities at Barn Doors

**W. W. SUTHERLAND,** **J. H. ASHCRAFT, JR.,**  
In Office. Manager.

**Toppers in Clydesdales at Markham, Ont.**



I have sold more Clydesdales in the last four months than I ever did before in the same time. Why, because I can show more good horses than any other man in Canada. I have some crackers left. Come quick if you want the best the breed produces. No man can undersell me.


**T. H. HASSARD,** **Markham, Ont.**  
Markham, G. T. R. Locust Hill, C. P. R.

**For Sale ONE EXTRA FINE Clydesdale Stallion**

Four years old, by Benedict. He is a beauty and sure foal getter. AND TWO TWO-YEAR-OLD STALLIONS. VERY CHEAP.

**Willowdale Stock Farm, Lennoxville, Quebec**

**Clydesdale Stallions and Fillies**



Our past record for many years in the leading show-rings of Canada and in the year-by-year increase in volume of business is our best recommendation. This has been our best year. We have still some of the best of last year's importation in both stallions and fillies. We solicit your trade and confidence.

**SMITH & RICHARDSON, Columbus P.O., Ont.**  
Brooklin G. T. R. Myrtle C. P. R. Ottawa C. N. R.

**Clydesdales, Stallions and Fillies, Percheron Stallions**

My 1911 importation have arrived—20 Clyde stallions, 18 Clyde fillies, 6 Percheron stallions. I have many winners at Old Country shows. Big, choice, quality stallions and mares bred from the champions, and the best Percherons in Canada. Prices right.

**T. D. ELLIOTT, Bolton, Ont.**  
Long-distance phone.

**Mount Victoria Stock Farm, Hudson Heights, P. Q.**  
We have for service this season the Champion Imp. Clydesdale stallions Netherica, by Pride of Blacon, dam by Sir Everard; also Lord Aberdeen, by Netherica, and the Champion Hackney stallion Terrington Lucifer, by Copper King. For terms and rates apply to the manager.  
**T. MACAULAY, Prop.** **ED. WATSON, Manager.**

**QUESTIONS AND ANSWERS.**  
Veterinary.

**INDOLENT SORE.**  
Colt has a sore on outside of leg below the stifle joint. It is about the size of a 25c. piece, and refuses to heal. It has been there for three months. A scab forms, but gets rubbed off.  
K. F.

Ans.—Remove the scab and apply butter of antimony with a feather once daily for three or four days. Then dress three times daily with carbolic acid 1 part, sweet oil 24 parts, until healed. If necessary, apply the butter of antimony again. That is if the healing process does not continue, it indicates that there are granulations that must be removed by a caustic, therefore apply the antimony.  
V.

**ERYSIPELAS.**  
Mare will be due to foal May 1st. About eight weeks ago she became constipated and stiff, and has laid down only a few times since. I fed her bran, linseed and stock food, which regulated her bowels. The left side of mamme, abdomen, breast, and left hind leg swelled and exuded a thickish, sticky fluid, and she became very stiff and thin. The hair has fallen off, and the parts are pock-marked. How can I get her in condition? If she foals all right, will the milk from the diseased half of the mamme be healthy for the foal?  
R. H. A.

Ans.—This was a form of erysipelas to which pregnant mares appear to be subject. In order to build her up, feed liberally on bran, chopped oats, and a little linseed meal and good hay. Give her regular exercise. Give her 4 drams hyposulphite of soda three times daily in damp food. Dress the affected parts of the skin three times daily with carbolic acid 1 part, sweet oil 35 parts. It is probable that she will have recovered from the skin and muscular trouble before foaling, and she should improve in condition, and yield milk of good quality.  
V.

**HEAVES—TUBERCULOSIS.**  
1. Horse is very fat. He has been working occasionally all winter. After standing in the stable a week I took him out, and after going 1 1/2 miles he gave out, breathed very heavily, and could not draw the sleigh any farther. He eats and drinks well, but breathes heavily all the time, and if exercised becomes exhausted. He coughs a little, and discharged from the nose once or twice.  
2. Do horses take tuberculosis, and what are the symptoms?  
3. Do you think he has tuberculosis?  
C. W. P.


Ans.—1. The symptoms indicate heaves, which cannot be cured, but the symptoms can be relieved by careful feeding. All food given must be of good quality. Feed so as not to overload the stomach. Give small quantities of good hay or clean straw, and reasonable quantities of oats. Dampen all he eats with lime water, made by slaking a little lime, then adding water to it and stirring thoroughly. Allow it to stand when the undissolved lime will settle to the bottom, and the clear water on top is the "lime water." Give him every morning 2 drams solid extract of belladonna, 1 1/2 drams powdered opium, 1 dram camphor, and 30 grains digitalis, mixed with sufficient oil of tar to make plastic. Roll in tissue paper and administer as a ball, or dissolve in a pint of warm water and administer as a drench. Give him daily exercise in proportion to what he can stand. By feeding largely on grain with little bulky food, the stomach will not become engorged, and he should be able to take some exercise, and improve daily in this respect.

2. Horses may contract tuberculosis, but rarely do. The symptoms are not sufficiently well marked to enable a man to distinguish them. Even an expert can only be suspicious without making the tuberculin test.

3. We do not think this horse is tubercular.  
V.

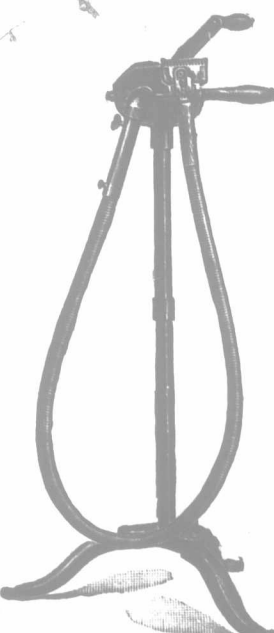
Graham-Renfrew Co., Bedford Park, North Toronto, write: Our sales of Clydesdales have been better this winter than ever before, but we still have a number of good big young stallions on hand. Also a few good young fillies.

**HORSE OWNERS! USE**  
GOMBAULT'S  
**CAUSTIC BALSAM.**



A safe, speedy and positive cure. The safest, Best BLISTER ever used. Removes all bunches from Horses. Impossible to produce scar or blemish. Send for circulars. Special advice free.  
**THE MACFARLANE-WILLIAMS CO., Toronto, Canada**

**BURMAN'S HORSE CLIPPER**  
SAVES TIME AND MONEY



Wherever you find well-kept horses—wherever quick, clean work counts—there you will find the "BURMAN" HORSE CLIPPER. It works smoothly, quickly, and leaves a silk-like finish—it is simple, durable, and will last a lifetime without going wrong in adjustment. Comes packed ready for use—clipping plates and shaft-hook for holding clipping-head supplied. Ask your nearest dealer, or write direct.  
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For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hocks, Strains or Bruises, Thick Neck from Distemper, Ringworm on Cattle, and to remove all unnatural enlargements. This preparation (unlike others, acts by absorbing rather than blistering). This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin, or money refunded, and will not kill the hair. Manufactured by Dr. Frederick A. Page & Son, 7 and 9 Yorkshire Road, London, E. C. Mailed to any address upon receipt of price, \$1.00. Canadian agents:

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**For Sale** Valley Dale Shires. Imported and Canadian bred Stallions, Mares and Fillies from 1 to 7 years old. For description and particulars apply to  
**Wm. Pearson & Son, West Flamboro,**  
Address 103 York Street, HAMILTON, ONT.



## A Favorite with Women

An Agent of ours, who previously sold other makes of separators, says: "The reason I asked for your agency was because

# EMPIRE

## Cream Separators

seem to be the favorite with the women of this locality. Before I had Empires for sale, I've known women to go to a town ten miles farther on to get them."

Empire Separators well merit their popularity with women. They run so easily, children think it's fun to operate them.

They don't spatter oil. And the anti-splash steel supply can keep the milk from slopping out. They don't make a muss. They are clean-running machines.

The few, simple skimming de-

vices are easy to clean. Empires are sanitary separators.

They are not complicated in construction. Nothing puzzling about them. They are simple machines. Easy to put together. Easy to understand.

Surely madam, you would like to realize the pleasure and profit there is in owning a really good separator, therefore ask our agent to let you have one for Free Trial. This will place you under no obligation to buy.

You may have a copy of our latest catalog, too, if you'll just write our nearest office. 34

### The Empire Cream Separator Company of

Canada, Limited

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Agents everywhere in Canada—Look for the Empire Sign.

*Standard Wire Fence*

**Here's the Fence That is all Steel—**  
Steel wires, steel locks, steel posts. Standard Woven Wire Fence is all No. 9 hard steel wire, well galvanized. "The Tie That Binds" is hard, smooth steel that holds uprights and running wires absolutely secure without injury. Standard Patent Posts are 12 gauge steel, bent at right angles, and so constructed that wires are held without staples.

Let us send you a lot of other things about the Standard Wire Fence and our Metal Gates of Galvanized Tubing. Our books are full of fence facts. Write for free copies and sample lists.

THE STANDARD WIRE FENCE CO. OF WOODSTOCK, LIMITED, Woodstock, Ont. and Brandon, Man. 18

## DAVIES'

Slaughter-house by-products, **Bone, Blood, Tankage**, etc., are thoroughly sterilized, practically deodorized, then utilized in the preparation of

### HIGH GRADE ANIMAL FERTILIZERS

Brands specially suited for **Potatoes, Tobacco, Corn, Beans, Orchards, Grains, Vegetables, Greenhouse Crops, Grass Lands, Lawns, etc.**, are being manufactured at our Toronto factory. There is no doubt as to their superiority over mixtures of purely chemical compositions. Professors Harcourt, Blair, Cumming and Gamble highly commend them in their opinions expressed in our booklet. Samples of the raw materials may be seen on the **FARMING SPECIAL** now being run by the Ontario Government. (We will supply you with these raw materials if you prefer to do your own mixing—the economy is doubtful, however.) **We pay freight on all orders of 200 lbs. or more, in the Provinces of Ontario and Quebec—all other quotations f.o.b. factory.** Payment in the fall. Don't be satisfied with any brand your dealer happens to handle—demand Davies', and if he isn't "up-to-date in the Fertilizer line," order direct from us. It will cost you no more. Don't waste your money paying 10% duty on imported brands—we give you that in extra plant food. Increase your yields, profits and happiness for years to come by writing us for our assistance.

The WM. DAVIES COMPANY LTD., Toronto, Canada

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Champions of 1911 shows, winners  
Regina, Edmonton, Toronto  
Young stock, bon.

Long distance 'Phone

THE FARMER'S ADVOCATE

### HERE

also find  
reason for  
L. O. G. R.

WRITING

### QUESTIONS AND ANSWERS. Miscellaneous.

**FREE TREES FOR WOOD-LOT.**  
To whom should one apply for information as regards free trees to set out in a wood-lot?  
D. W. C., Ontario.

Ans.—Prof. E. J. Zavitz, O. A. C., Guelph, Ont.

### STEER SLOBBERS.

I have a steer rising three years old that started to slobber a lot at the mouth about a month ago, and about two weeks ago a hard lump came on the right side of his lower jaw, and he has failed considerably. I had been feeding him barley straw, turnips, and chop, but he either cannot eat, or has a poor appetite now. What is the cause of this, and is it contagious?  
W. E. H.

Ans.—This is likely a form of actinomycosis, or lump jaw. The potassium-iodide treatment may effect a cure. Give one dram iodide of potassium as a drench in half pint of cold water three times daily. Gradually increase the dose until appetite fails and tears run from his eyes. When these symptoms appear, cease giving the drug for two weeks, after which, if necessary, treat again. Lump jaw is not contagious unless other animals ingest some of the saliva or discharge from suppurating tumors caused by the disease. The disease is caused by spores, called actinomycetes, which gain entrance to the blood through injuries to the mouth, tongue, etc. It is generally advisable to isolate cattle having the disease.

### COW AILING.

Can you tell me through your paper what is wrong with our cow? About two weeks ago she took sick; she seems to hold her head down, her ears seem to hang down and her eyes are dull; has lost in flesh. I think she has lost her cud. I gave her a piece of fat pork; she seems to chew it all right now.  
E. R. L.

Ans.—If you will now bore her horns and slit her tail you will no doubt effect a cure. Speaking seriously, you are mistaken in your idea about the cud. Cattle do not get sick because they lose their cuds. They cease chewing the cud when and because they are in some way sick or indisposed. Remove the trouble and the cud will come back without putting a wad of something in the mouth. If the lard you administered did the cow any good at all it was by some effect on the digestive system, and not because of any direct action in restoring her cud. Without undertaking to diagnose positively, we suspect your cow is suffering from a disordered digestion. Give her a drench of 1½ lbs. of Epsom salts and 1½ ounces ginger. Follow up with 2 draughts each of nux vomica, ginger, gentian and bicarbonate of soda three times daily. Feed on wholesome food, such as clover hay, good silage, roots, bran and oat chop.

### MARE DIES.

Could you tell me, through your paper, what my mare died with? She was working on Friday forenoon and seemed all right. Took her feed on Saturday morning, and was taken sick about ten o'clock. She would lie down and get up again, never pawed, and did not bloat. She kept throwing up her head and curling up her lip. I gave her a pint of oil, an ounce of turpentine, and an ounce of laudanum. Her temperature was up to 103. My veterinarian told me that it was symptoms of rupture of the stomach, and to give her a bottle of salt and water, and it would start pain if it was that. I did so, and she just strangled and died in about 15 minutes. Opened her, and stomach was opened about six inches, and some food was outside of the bowels. She was in foal and very fat, and about 20 years old. Was it the rupture, or was she strangled with salt and water? She never coughed, and seemed to swallow it all right. As she would lay down she produced a gurgle sound in her throat, and she would rest back in 10 minutes. I gave her a dose of castor oil, and she died. As the stomach was opened, and some food material was found outside of the bowels, maybe it was a rupture of the stomach. There is a large organ in the stomach from the rupture of the stomach. I had her dead, and I would like to know what the cause of death was.

## Who Pays the Duty?

Why pay fancy prices for calf meals of foreign manufacture when you can buy CALFINE 15 to 20 dollars a ton cheaper and secure at least equal, and in most cases superior, results.

**CALFINE**  
"The Stockman's Friend"  
has been most carefully experimented with at Macdonald Agricultural College, where it has given excellent results. It is now in use on some of the largest and best equipped dairy farms in the Dominion.

Ask your dealer for a 100-lb. bag of CALFINE as a trial—you will soon be back for more. If your dealer does not handle it, write us. We will do the rest.

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Limited  
TORONTO, CANADA

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Threshes Canada Field Peas, Cow Peas and Soy Beans from the mown vines, breaking less than 2 per cent. Also threshes wheat and oats. "The machine I have been looking for 20 years," Prof. W. E. Massey. "A machine that will meet every demand," Prof. H. A. Morgan, Tenn. Experiment Station. Nothing like it. Booklet "FREE."

**KOGER PEA & BEAN THRESHER CO.**  
Morristown, Tenn.

**Angus Bulls for sale**—If you want a nice young Angus bull at a reasonable price enquire of

**J. W. BURT & SONS**  
Aberdeen Farm Conlin'sby P. O., Ont.

### Aberdeen - Angus

Now is the time to buy a bull; eleven for sale; also females any age or price. **WALTER HALL,** Drumbo station. Washington, Ont.

**Balmedie Aberdeen-Angus** I am offering for sale young bulls and heifers of the highest types of the breed. Show stock in show condition a specialty. Bred on the most popular lines. **Thos. B. Broadfoot, Fergus Sta., Wellington Co., Ont.**

### WILLOW BANK STOCK FARM

#### Shorthorns and Leicesters

Herd established 1855, flock 1948, have a special good lot of Shorthorns of either sex to offer of various ages; also a grand lot of Leicester sheep of either sex—a few imported ones to offer.  
**JAMES DOUGLAS**  
Caledonia, Ontario.

### "The Manor" Scotch Shorthorns

Present offering: Three choice yearling bulls. Young cows in calf. Yearling heifers: Clippers, Minas, Wimples, Julias, etc. Inspection solicited. Prices moderate. Phone connection.

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### IMPORTED SHORTHORN BULL

Lord Lieutenant, 50750, for sale or exchange, quite sure and active; young bulls and heifers by him and out of dams direct from imported stock; also pacing stallion, rising three years old, sound, stylish and speedy.  
**L. K. WEBER,**  
County Waterloo, Hawkesville Ont.

**Shorthorns and Swine**—Am now offering a very choice lot of cows and heifers, safe in calf, and some choice young bulls for the fall trade; also Berkshire and Yorkshire pigs; showyard material.

### ISRAEL GROFF, Fimira Ont.

**Shorthorns, Shropshires and Berkshires**  
For sale: I have young bulls and heifers, bred for milk production. High-class flock-heads, winners, and covered to the ground. Berkshires, both sexes of breeding age, show stock **W. Wilson, Brickham P. O., Hastings Sta., G.T.R.**

### Woodholme Shorthorns

I have for sale a number of choicely-bred Scotch Shorthorn heifers and several young bulls, all of high class quality and sired by Imp. Dorothy's King #55099, a Lady Dorothy. I am also offering this bull for sale.

### G. M. FORSYTH, North Claremont P. O. & Sta.

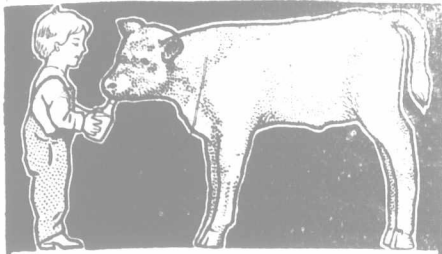
**IMPORTED BULL FOR SALE**  
Our Green Grove herd of Shorthorns is headed by the two imported bulls Imp. Spector #50094 and Imp. Royal Bruce #55038. Present offering: Stock bull Imp. Spector and two choice young bulls—head headers, fit for service; also good females **Geo. D. Fletcher, Binkham Ont. Frin Sta. C. P. R.**

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Our present offering: Bulls from 8 months to 22 months, horns and reds; all got from the Green Grove 72602. Prices from \$75 to \$150.

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Calves Pay Big Dividends

Pratts Animal Regulator overcomes the many difficulties met by dairymen in raising strong, healthy calves.

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You must be more than satisfied or our dealer will refund your money. Test it with all or part of your calves, horses, cows and hogs.

25 lb. pails \$5.50. Also in smaller packages and 100 lb. bags.

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Pratts Poultry Regulator will keep your fowls healthy and is a guaranteed egg producer.

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Canada's Double Track Line

HOMESEEKERS' EXCURSIONS

WESTERN CANADA Via Chicago

April 2nd, 16th and 30th and every second Tuesday thereafter until Sept. 17th, inclusive.

Winnipeg and return \$34.00 Edmonton and return 42.00

Tickets good for 60 days. Proportionate rates to other points in Manitoba, Saskatchewan and Alberta.

Low Rates to Pacific Coast

Tickets on sale daily until April 15th.

Settlers' One-Way Tickets

To Manitoba, Saskatchewan and Alberta, on sale every Tuesday in March and April.

Full particulars and tickets from any Grand Trunk Agent, or write A. E. Duff, District Passenger Agent, Toronto, Ont.

Six Shorthorn Bulls must be sold.

Different colors, and their breeding is good enough for any herd. Write me for prices before purchasing.

WM. SMITH, COLUMBUS, ONTARIO

MAPLE LODGE STOCK FARM 1854-1912

Have two very desirable Shorthorn bulls for sale, a red and a roan. A handsome young Clydesdale stallion for sale, and the Leicester are doing splendidly.

A. W. SMITH, Maple Lodge, Ontario Lucan Crossing, G. T. Ry., one mile.

Shorthorns of Show Calibre

Only one bull for sale now, but 13 grand heifers by Mildred's Royal must be sold, as we have no bull to breed them to. Come and see them, or write.

GEO. GIER & SON, Grand Valley, Ont.

SPRING VALLEY SHORTHORNS

Herd headed by the two imported bulls, Newton Ringleader, #7593, and Scottish Pride, #36106. The females are of the best Scotch families. Young stock of both sexes for sale at reasonable prices. Telephone connection.

KYLE BROS., - - Ayr, Ontario

QUESTIONS AND ANSWERS. Miscellaneous.

SIDEBONES.

I have a good registered Clydesdale mare rising two years of age. Her feet were neglected, and not being trimmed, a small sidebone has appeared.

1. If feet are trimmed now will this disappear?

2. If not, will a blister, or blistering, take it away? The mare has never showed any signs of being lame.

3. If blistering does not take it away, would it be a disadvantage to her as a show mare in the show-ring next fall?

FRANK.

Ans.—1 and 2. Sidebones cannot be removed. They are caused by ossification of cartilage, and no treatment will reconvert it into cartilage. Trimming the feet will not effect a cure now, although they should be kept in a good condition, notwithstanding the trouble. If the animal becomes lame, the lameness can be cured, in many cases, by blistering. Take 2 drams each of biniodide of mercury and cantharides, and mix with 2 ounces of vaseline. Clip hair off the parts and tie so she cannot bite them. Rub well with the blister once daily for two days, and on the third day apply sweet oil. Oil every day. As soon as the scale comes off, blister again.

3. Yes; if the judge discovers them, which is generally the case with a competent judge.

MISCELLANEOUS QUERIES.

1. Are there any auctioneering schools in Ontario? If so, give the address of same.

2. Could you inform me how to tell the sex in geese?

3. On what kind of land does goose wheat do the best?

4. Please give ration for Hackney colt foaled in September, to be fitted for spring fair.

5. Would it be safe to dock a Clydesdale mare rising three years? If not, at what age are they generally docked?

6. What is ginseng used for, and can it be grown successfully in Ontario?

7. I dug a well two years ago in heavy clay, and cemented it up inside. The water has never been unfit for use, but it has a limy taste, and it also foams when pumping. Do you think it is the heavy clay or the cement that has spoiled the water?

J. M.

Ans.—1. We think not.

2. The male birds have usually longer necks and a shriller call than the females, which are rounder bodied and plumper than the males. Ganders usually carry their heads higher, with the point of the bill turned upwards, while the goose usually points her bill downward.

3. Very rich clay, or clay loam soil, in a good state of cultivation. Goose wheat requires strong soil, and as it is not susceptible to rust, it usually does well on rather low soil, provided, of course, the soil is well drained.

4. Good, well-cured clover hay, or clover and timothy mixed, together with good oats and bran. As show time approaches, a little oil-cake meal might be added to the ration. A few roots as a turnip or carrot a day, would be found good.

5. Reasonably so, provided precautions are taken in the operation. There seems to be no set age at which to dock horses. Some do it when they are yearlings, others two years old and three years old, or whenever they purchase them. We would think two years old plenty old enough, provided they were to be docked, and good success has followed docking yearlings. We would not hesitate to dock older horses because of danger from the operation.

6. It is a common Chinese belief that when all remedies have failed, and death is near, ginseng can restore life and insure longevity. It is used in large quantities by these people. It grows wild in the woods in many parts of Ontario, and is essentially a forest plant. Success with it depends upon how closely forest conditions are imitated. It must have shade and a moist, cool, deep loam, rich in decaying vegetable matter, free from stones, and roots, and well drained.

7. If the water has never been unfit for use, why make any alterations? The best must come from the source in the soil, and the selection of a pump in the water course, is a matter of degree.



The Feed That Makes The Cream

Livingston's Oil Cake is the cheapest feed for cows—cheaper than corn, shorts or even hay. Because it actually increases the richness of cream—and also increases the amount of butter that you get out of the milk.

Test your cows before and after feeding Livingston's Oil Cake for a month—and your "butter money" will show its economy.

Fine Ground, Coarse Ground, Pea Size and Nutedt Grindings. If your dealer cannot supply you write us for prices and samples.

DOMINION LINSEED OIL CO'Y, LIMITED BADEN, ONTARIO

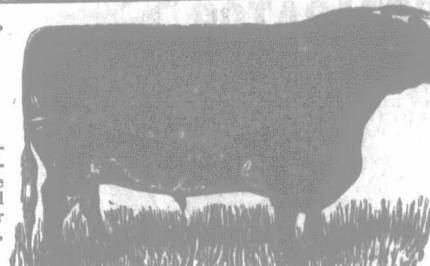
Manufacturers J. S. J. Livingston Brand Oil Cake

ARTHUR J. HOWDEN & CO. ARE OFFERING

15 High-class Scotch Shorthorn Heifers

At moderate prices, including Cruickshank Non-pareils, Cruickshank Villages, Marr Emmas, Cruickshank Duchess of Glosters, Bridesmaids, Bruce Fames, Kinellars, Claretts, Crimson Flowers, and other equally desirable Scotch families, together with a number of the grand old milking Atha tribe, which have also been famous in the showing.

Arthur J. Howden & Co., Columbus, Ont.



Shorthorn Bulls and Clydesdale Mares

If you are in the market for a young bull, write us for particulars, or, better still, come and see them. We have 13 young bulls, from 8 to 14 months old, of good breeding and quality. We also have four imported Clydesdale mares, safe in foal.

W. G. PETTIT & SONS, Freeman, Ontario

Bell 'phone. Burlington Jct. Sta., G. T. R., 1/2 mile from farm

10 SHORTHORN BULLS 10

If you are looking for a young bull to head a purebred herd, or one to cross on grade cows to raise first-class steers, I have them to suit all customers at very reasonable prices. They are reds and roans, and one extra good white show calf; ages from 9 to 14 months, nearly all sired by imported bulls and from the best Scotch families of cows. Will be pleased to furnish breeding and prices.

Claremont Stn., C.P.R., 3 miles. JOHN MILLER, Brougham P.O., Ont. Pickering Stn., G.T.R., 7 miles.

SHORTHORNS

Have now a choice lot of young bulls to offer; also with something nice in heifers. Catalogue of herd and list of young animals on application.

H. CARGILL & SON, Proprietors, Cargill, Ont., Bruce Co. JOHN CLANCY, Manager



THIS IS A GOOD TIME, AND I HAVE A GOOD PLACE, TO GET A HIGH-CLASS SCOTCH SHORTHORN BULL CALF

by my great Whitehall Sultan sire, or a young cow in calf to him, to start a herd that will be gilt-edged. SHROPSHIRE RAMS AND EWES, too, at low prices. CHILDREN'S PONIES. A CLYDESDALE FILLY, such as I can send you, is one of the best things any man can buy. Just write me and say as nearly as possible what you want, and I will surprise you with prices on goods that are genuine. ROBERT MILLER, STOUFFVILLE ONTARIO

Shorthorns and Clydesdales—We are offering 10 choice young bulls, serviceable age, or exchange. In Clydes our present offering are two stallions rising 3 and 4 years old; big quality horses, from imported sires and dams; also cows and heifers, mares and fillies. Write us, or come and see them. A. R. & T. W. DUNN, 48 Strathroy Ont. Farm one mile north of town.

Scotch Shorthorn Females for Sale I am offering at very reasonable prices, females from one year to five years of age. The youngsters are by my grand old stock bull, Scottish Hero (imp.) #55042= (90065), and the older ones have calves at foot by him, or are well gone in calf to him. Their breeding is unexcelled, and there are show animals amongst them. A EDWARD MEYER Box 378. GUELPH, ONT.

Pleasant Valley Farms Shorthorns For Sale: Scottish Signet, best son of imp. Old Lancaster, and several good young bulls of the best Scotch breeding, at prices to suit everyone. Write us for exactly what you want, or visit us. Farm 11 miles east of Guelph, C. P. R. Half mile from station. Geo. Amos & Sons, Moffat, Ont.

SALEM SHORTHORNS Headed by (Imp.) Gainford Marquis, undetested in Britain as a calf and yearling, and winner of junior championship honors at Toronto, 1911. Have on hand two yearlings and a number of bulls under a year for sale at reasonable prices. J. A. WATT, Salem, Ont. Flora Sta. G. T. R. and C. P. R.

Scotch Shorthorns FOR SALE—One of our imported herd bulls and eight heavy-boned, deep-bodied, low-down bull calves, 12 to 16 months old. Also twenty-five heifers and young cows bred to imported bulls. MITCHELL BROS., Burlington, Ont. Farm 1/2 mile from Burlington Jct. Station.

BLAIRGOWRIE STILL TO THE FRONT

SHORTHORNS—2 red bulls, 12 and 15 months; 1 red bull, 9 months; 2 roan bulls, 12 and 14 months. CLYDESDALES—One mare in foal, one filly rising three, two filly foals. Inspection invited. Myrtle, C. P. R. Sta. L.-D. Phone. JOHN MILLER, JR., Ashburn, P.O.



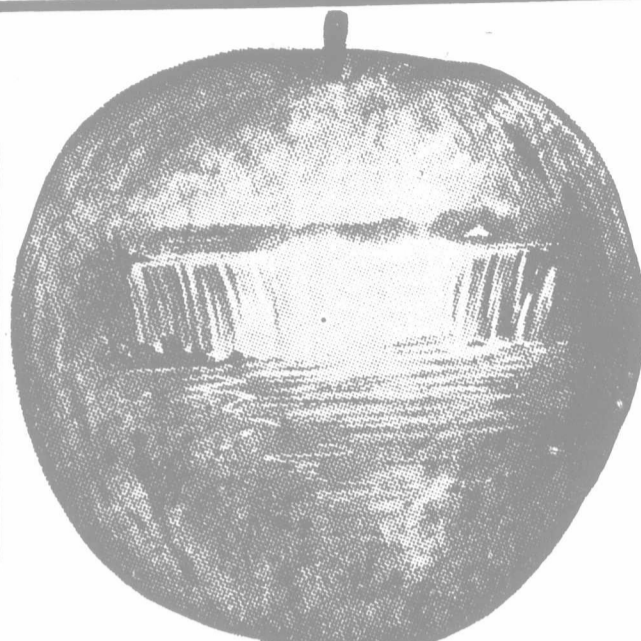
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### Niagara Lime-Sulphur

Has now been sold in Ontario for the past four years, and has always proved its merits as an insecticide and fungicide. Niagara shows the highest Beaume test. It is absolutely clear and uniform. Niagara is not an experiment. It always gives results. Our **ARS-NATE OF LEAD (Swift's)** is used and endorsed by all up-to-date growers. It is guaranteed to contain 15 per cent. arsenic oxide. It mixes easiest, sticks and kills best. Niagara Sprays are guaranteed. **REMEMBER**— "Wherever fruit excels Niagara Spray is used." Our book on "Sprays and How to Use Them" is free.

#### WE SUPPLY

Lime-Sulphur, Arsenate of Lead, Raw Sulphur, Gasoline Engines, Spray Pumps (Hand and Power), High Pressure Hose, Spray Rods, Nozzles, Hydrometers and Accessories.



TRADE MARK, REGISTERED

## SPRAY PUMPS

### POWER OUTFITS

**Bean Giant and Niagara Triplex**, three-cylinder pumps of great power, capacity and durability. They spray at 250 lbs. pressure. Operate with 2 1/2 or 3 1/2 H.P. Engine. **Bean Duplex**, a two-cylinder pump of slightly less capacity. Operates with 1 1/2 or 2 1/2 H.P. Engine. All our pumps have porcelain-lined cylinders, so are proof against corrosion. They have many excellent features.

Write for our Illustrated Catalogue.

### HAND PUMPS

Three sizes of barrel pumps. **Magic No. 9 and No. 10**. The greatest hand pump in the world. Operates with one man at 140 lbs. pressure. We keep every part in stock. We take care of our customers.

## NIAGARA BRAND SPRAY CO.,

LIMITED

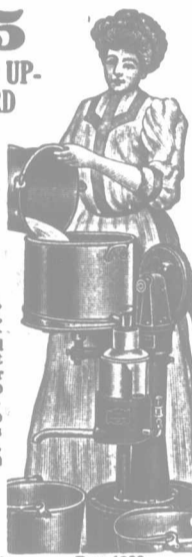
Burlington, Ont.

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## 15<sup>95</sup> AND UPWARD

### AMERICAN SEPARATOR

**THIS OFFER IS NO CATCH.** It is a solid proposition to send, on trial, fully guaranteed, a new, well made, easy running separator for \$15.95. Skims hot or cold milk; making heavy or light cream. Designed especially for small dairies, hotels and private families. Different from this picture, which illustrates our large capacity machines. The bowl is a sanitary marvel, easily cleaned. Shipments made promptly from **WINNIPEG, MAN., TORONTO, ONT., and ST. JOHN, N.B.** Whether your dairy is large or small, write us and obtain our handsome free catalog. Address: **AMERICAN SEPARATOR CO. Box 1200 BAINBRIDGE, N.Y.**



### CHERRYBANK AYRSHIRES

Imported and Canadian bred, with R. O. P. official records, headed by the renowned champion, Imp. Netherhall Milkman. Richly-bred females and young bulls for sale. **P.D. McArthur, North Georgetown, Que.**

### AYRSHIRES FOR SALE

Seven bulls and a few heifers of different ages, sired by Woodroffe Comrade, whose first heifer in milk, gave 11,392 lbs. milk, 480 lbs. butterfat in one year. Prices right. **H. C. HAMIL, BOX GROVE P. O. ONT., Markham. G. T. R.; Locust Hill, C. P. R. Bell'phon connection from Markham.**

**Stockwood Ayrshires** are coming to the front wherever shown. This herd is now headed by White Hill Free Trader (Imp.) No. 33273, championship bull at Sherbrooke; also headed the 1st-prize aged herd. Stock of all ages for sale. Satisfaction guaranteed. **D. M. WATT, St. Louis Station, Que.** Telephone in house.

### High Grove Stock Farm

No better Jersey blood in Canada. Stock all ages and both sexes for sale. **Arthur H. Tufts, P. O. Box 111, Tweed, Ont.**

"Binks used to be daft on the subject of buried treasure. What's he up to now?" He's got up an expedition to Asia Minor to try to find the place where Methuselah stored his birthday presents."

If you want to bring up a child in the way he should go, you had better scuttle ahead.—Mark Twain.

## THE BEST WAY TO KEEP THE HANDS CLEAN.

Women have to do dirty work on the farm as well as the men. Cleaning lamps, blacking stoves, paring potatoes, scrubbing floors and milking, are all hard on the hands.

The thousands who are using SNAP find it exactly what women need, and would not be without a can.

It is a wonderful hand cleaner, instantly removes dirt, stains and odor without much rubbing, and keeps the hands smooth and free of chaps. It is healing and antiseptic. 15c. a can. 114

### GOSSIP.

L. O. Clifford, of Orchard Beach Farm, Oshawa, Ont., reports a most satisfactory trade in Herefords. The extreme hardness of Hereford cattle, and their ability to thrive where most other beef breeds would fail, is being better and more thoroughly set forth by breeders of this old reliable and most popular English breed of cattle. The Orchard Beach herd is one of the oldest established herds in Canada, the present owner having been accustomed to the feeding and care of the white faces from childhood up, and, as usually happens in cases of that kind, acquired an innate love for the breed, and on his attaining his majority and taking over the herd, he at once set to work to bring the herd up to a standard of excellence attained by none other in the country. That he has fairly well succeeded is evidenced by the almost unbroken series of successes he has met with at the leading shows, from Ottawa in the East, to the leading shows of Western Canada. This splendid record has not been attained in a year or two, but in many years of careful selection of breeding animals from the leading herds of the United States. It has cost Mr. Clifford a lot of money, and the Hereford-breeders of Canada will benefit largely by having at their doors a herd of so high a standard from which to select breeding animals. Always for sale are young females and choice young herd-headers.

And still the reports of an unprecedented demand for the better class of breeding Clydesdales continue to come to hand. The latest is from John Semple, of Milverton, Ont., who reports the sale to Wm. Witzel & Son, Khiva, Ont., of the big, quality stallion, Cambushinnie Squire (imp.), sired by the renowned Royal Favorite, dam by the £3,000 Prince of Albion. This is the kind of breeding that has produced Scotland's best, and in this horse the Messrs. Witzel should have a topper of the tops as a sire, as he has both the breeding and high-class individuality. To Wilmot & Henderson, of Kingston, Ont., went the thick, smooth, good-ribbed horse, Cambushinnie Crest (imp.). He is a four-year-old, sired by the popular breeding horse, Baron Ruby, dam by the great Prince of Albion mentioned above. This horse should certainly do well in the Eastern district of Ontario. His stylish carriage and splendid quality of underpinning ensures him a welcome in any section. To Alex. McDonald, of Toronto, Ont., went the 1,800-lb. mare, Holland's Queen (imp.), sired by the great peer horse, Gallant Fauntleroy; this is a mare of outstanding merit, and is sired by the late Mr. Semple's quality stallion, the Prince of Albion. It is worthy of a place in the three prize-winners in Scotland, and is one of the high-class quality of the best of the importations. He has still a large collection of stallions and mares that interested purchasers would do well to inspect.

## CALVES WITHOUT MILK

Write for Free Booklet

"How to Raise Calves Cheaply and Successfully Without Milk"

Contains full information and complete feeding directions for usage

### Blatchford's Calf Meal—The Perfect Milk Substitute

Three or four calves can be raised on it at the cost of one where milk is fed. No mill feed. The only calf meal manufactured in an exclusive Calf Meal Factory. Established at Leicester, England, in 1890.

## STEELE, BRIGGS SEED CO., LTD.

WINNIPEG, MAN.

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TORONTO, ONT.

## Brampton Jerseys

Calves and some calves for sale. Production and quality.

Bulls fit for service are getting scarce. Just a few left. Yearling heifers in calf are in great demand; 6 for sale; 6 now being bred. Brampton Stockwell the sire. A few good



Lump Rock Salt, \$10.00 for ton lots. F.O.B. Toronto **Ontario Salt Works, 128 Adelaide St. E., J. J. CLIFF, MANAGER. Toronto, Ont.**

### Cattle and Sheep Labels

Size	Price 50c. Fifty tags
Cattle	75c. \$2.00
Light Cattle	60c. 1.50
Sheep or Hog	40c. 1.00

No postage or duty to pay. Cattle sizes with name and address and numbers; sheep or hog size, name and numbers. Get your neighbors to order with you and get better rate. Circular and sample. Mailed free. **F. G. JAMES, Bowmanville, Ont.**

## STONEHOUSE AYRSHIRES

Are coming to the front wherever shown. Look out for this at the leading exhibitions. Some choice young bulls for sale, as well as cows and heifers. **HECTOR GORDON, Howick, Quebec.**

### HIGH-CLASS AYRSHIRES

If you are wanting a richly-bred young bull out of a 30-lb. a day and over cow, imported or Canadian-bred dam and sire, write me. Females all ages. Prices are easy. **D. A. Macfarlane, Kelso, Que.**

### Dungannon Ayrshires and Yorkshires

For immediate sale are: Three choice young bulls and a few heifers; also young sows of breeding age, quality and breeding combined. **W. H. FURBER, Cobourg, Ont. L.-D. Phone.**

### Ayrshires and Yorkshires

We have still some good young bulls. Now is the time to buy for the coming season, before the best go. We have females any age, and can fill orders for carlots of Ayrshires. Pigs of either sex on hand. **ALEX. HUME & CO., Menie, Ont.**

### City View Ayrshires

One very choice bull, 20 months old; four 911 bulls, all grand individuals, and from R. O. P. incesters; could spare two or three more cows. Write or phone. **JAS. BEGG, R. R. No. 1, St. Thomas.**

### HILLCREST AYRSHIRES

Bred for production and large tests. Record of Performance work a specialty. Fifty head to select from. Prices right. **FRANK HARRIS, Mount Elgin, Ont.**

## GLENHURST AYRSHIRES

Established over 50 years ago, and ever since kept up to a high standard. We can supply females of all ages and young bulls, the result of a lifetime's intelligent breeding; 45 head to select from. Let me know your wants. **JAMES BENNING, Williamstown P. O., Summerstown Sta., Glengarry**

### Elmwood Holsteins

Choice bred, registered Cows, Heifers, Calves, Spring Crop 1912. March, April and May delivery: Sired by Imported Y Rema Sir Po-ch and Elmwood Sarcasie, Grandson of Sarcasie Lad. Best breeding, right prices. Express pre.aid. Safe delivery guaranteed. **E. D. GORGE & SONS, Putman, Ont.**

### Maple Line Holsteins and Yorkshires

Herd headed by Homestead Colantha Sir Abbecker 2nd, whose dam, sire's dam, g. dam, average 29.61 lbs. butter 7 days. For sale at bargain prices, choice bull calves from R. O. P. cows. **W. A. BRYANT, Middlesex Co., Calngorm, Ont.**

### Maple Grove Holsteins

Herd headed by Hengerveld, the greatest 30 lbs. back butter bred bull of the breed in this country. For stock of this kind, address: **H. BOLLERT, Tavistock, R. R. No. 5, Ont.**

### Calves

Raise them without milk. Booklet free. **CLOUGH & CO., Lennoxville, Que.**

## Purebred Registered Holstein Cattle

The most profitable dairy breed greatest in size, milk, butter-fat and in vitality. Send for FREE illustrated descriptive booklets. **HOLSTEIN-FRIESIAN ASSO., F. L. Houghton, Sec'y, Box 127, Brattleboro, Vt.**

### Yorkshires and Holsteins

**RICHARD HONEY & SONS, Minister Farm, Brimley, Ont.,** offers bargains in choice young heifers and sows fit to mate, sired by Monkland Roaster 4th and 11th from prizewinning sows. Orders taken for this spring's bull calves from Lakeview, Burke and large producing sows.

## KING SEGIS WALKER

The highest pedigree of any bull. A unique record of dam, gr. dams and g. gr. dams. Butter 28.80 lbs. per cow, 7 days. Fat, 1.23 lbs. For service, \$25. This bull is a grand sire of the best of the breed. Sons and daughters of this sire from Brimley, Ont., are the best of the breed. **W. A. FAREWELL, Oshawa, Ont.**



QUESTIONS AND ANSWERS. Miscellaneous.

ALFALFA ON HILLSIDE.

I have about one acre and a half on side hill which is quite gravelly, and at present seeded down. Would it be advisable to plow it this spring and seed down with alfalfa?

E. E. M.

Ans.—Alfalfa usually does well on high land. It would likely be advisable, if you break up the hillside in order to sow it to alfalfa, to work it for a season, or grow some hoed crop, giving it a good dressing of barnyard manure. The alfalfa could be sown the following spring with or without a nurse crop, or it could be sown this year in midsummer, after a thorough fallowing. It would also be advisable to inoculate the seed with culture, supplied by the Bacteriological Department of the O. A. C.

IRON PYRITES.

A child at play found a pretty stone, rough, but about the size of a small hen's egg. It was filled with bright specks, and the child put it in a large spoon in a hot wood fire. In only a few minutes the spoon was found to contain a small amount of bright yellow metal. It was seen by older members of the family, but unfortunately was lost while hot. There was perhaps a little more than half a teaspoonful, heavy, and very bright. Would this metal be gold, or are there other yellow metals so easily melted? What is the law governing the finding of minerals?

Ans.—The mineral was probably iron pyrites—sulphide of iron—when melted, left a yellow trace on the spoon, but was consumed by the fire. Neither gold nor any other metal found in this part of the country could be melted in an open fire. This form of iron is quite common in the drift. The law governing minerals depends altogether on the wording of the deed.

S. WOOLVERTON.

PROBABLY RINGBONE.

Mare four years old has ridges on hoofs of fore feet, just below the hair. Heels seem rather large also. She is lame when travelling on hard road, and in stable keeps them pointed in front of her.

- 1. What is the trouble with her?
2. Is it curable?
3. Kindly prescribe treatment.

SUBSCRIBER.

Ans.—The symptoms indicate ringbone. Clip the hair off the parts and rub well with a blister made of biniodide of mercury two drams, cantharides two drams, and vaseline two ounces, daily, for two days. Tie so she cannot bite the parts. On the third day apply sweet oil. Oil daily until scale comes off, then repeat the blister. Repeat the blistering three times, allowing three or four weeks between, and if not cured call in your veterinarian. Obstinate cases require firing and blistering, performed by a competent veterinarian. She may have some other trouble. The pointing indicates navicular disease.

STAGGERS IN PIGS.

What is the trouble with my pigs, and how can I treat them? I have a pen of 14, about 10 weeks old. They have been weaned about three weeks. When I go to feed them they rush to the trough, and the moment they get a mouthful or so of food, they tumble over in a sort of a fit and lay there quivering several minutes. When they come to again they will go back to the trough and eat a hearty meal. Every feeding time three or four will take these spasms and stiffen right out. I am feeding them on milk and shorts. I have nipped a piece off their ears and tail, and they seem to bleed an immense lot, but does no good.

J. O. C.

Ans.—This trouble occurs not infrequently with young pigs in winter even when in apparent health and doing well. It usually occurs when the pigs are feeding. The cause, while not well understood, is usually attributed to indigestion. Eating too fast may cause it. Change the manner of feeding for a time. Feed meal dry for a few days, and give them will and milk separately. This may induce slower eating and better digestion. Feed the milk and swill warm. Give food which tends to relax the bowels and keep charcoal, ashes, old soap, or salt, where they may take it at will.

Fairview Farms Herd

Is where you can secure a son of Pontiac Korndyke, admitted by all breeders to be the greatest Holstein sire that ever lived. Look what his daughters are doing. Two of them with records over 17 lbs. each. Then, look at the work his sons are doing. HE IS THE GREATEST PRODUCING SIRE OF THE BREED, THROUGH HIS SONS. Every son of Pontiac Korndyke that has daughters old enough to milk is a sire of good ones. We can offer you several young ones that will give you great daughters.

E. H. DOLLAR, HUEVELTON, N. Y.

LAKEVIEW HOLSTEINS!

Young bull, sired by Count Hengerveld Fayne De Kol, and out of Rose Rattler, 24 1/2 pounds butter in seven days. This calf was born 25th March, 1911, is well marked, about one-half black. Another, by the same sire, calved March 24th, 1911, out of Inka Sylvia 4th De Kol, 21 pounds butter in seven days, and 88 pounds in 30 days. Send for prices on these and several others equally good.



Telephone. E. F. OSLER, BRONTE, ONTARIO

SUMMER HILL HOLSTEIN CATTLE and YORKSHIRE HOGS

Our senior herd bull, Sir Admiral Ormsby, is the sire of the world's record 2-year-old for yearly butter production. Also sire of the three highest record four-year-olds in Canada. The dam of our junior herd bull made 34 6/8 lbs. butter in 7 days, and gave 111 lbs. milk per day. Come and make your selections from over 70 head.

In Improved English Yorkshires we have won 95 per cent of all first prizes at Toronto Exhibition for ten years. We are still breeding them bigger and better than ever.

Buy Summer Hill Yorkshires, the big, quick-maturing kind, and double your profits.

D. C. FLATT & SON, R. F. D. No. 2, Hamilton, Ontario, 2471, Hamilton.

Centre and Hillview Holsteins—We are offering young bulls from Sir Ladie Cornuopia Clothilde, the average of his dam sire dam and grand dams is 662 8 lbs. milk and 30.58 butter, 7 days, and 2,750.80 milk and 114.6 butter in 30 days; also Brookbank Butter Baron, who is a proven sire. He is sire of champion 3-year-old 30-day, 2-year-old 7-day and 2-year-old 30-day. Long-distance phone. P. D. EDE Oxford Centre P. O. Woodstock Sta.



Evergreen Stock Farm—High class Registered Holsteins for Sale. A splendid lot of heifers rising one year old, and heifer calves, good enough for foundation stock. Come and see them, or write for what you want. Satisfaction guaranteed.

A. E. HULET, Norwich, Ontario

Silver Creek Holsteins—We are now offering about a dozen yearling heifers and 3 young bulls. They are all of superior type, and officially backed on both sides. King Fayne Segis Clothilde, whose 7 nearest dams have 7-day records that average 27 lbs., is at head of herd. A. H. TEEPLE, CURRIES P. O., Ont., Woodstock Station. Phone connection.

Holsteins of Quality

Write us to-day for our proposition, telling you how any good dairyman may own a registered Holstein bull from a Record-of-Performance cow without investing a cent for him. Monro & Lawless, "Elmdale Farm," Thorold Ont.

MAPLE SOIL STOCK FARM

I have at present some young cows from three to five years old, got by Sir Hengerveld John De Kol and bred to Idalin's Paul Veeman; also a few heifers and young bulls from eight to ten months old, sired by Idalin's Paul Veeman; also booking orders for spring stock. Belmont Sta., C. P. R.

H. C. Holtby, Belmont, P. O., Ont.

Welcome Stock Farm Holsteins

Out of "Netherlands Pride" (ave 55 lbs. milk as a three-year-old) by "Winnie Countess" a nice straight, well grown, tall calf, quality all over, considerably more white than black, and nicely marked. Should be ready for light service soon. First check of \$45 takes him.

C. BOLLERT, R. R. No. 6, Tavistock, Ont. J. LEUSZLER, R. R. No. 1, Cassel, Ont.

The Maples Record of Holstein Herd

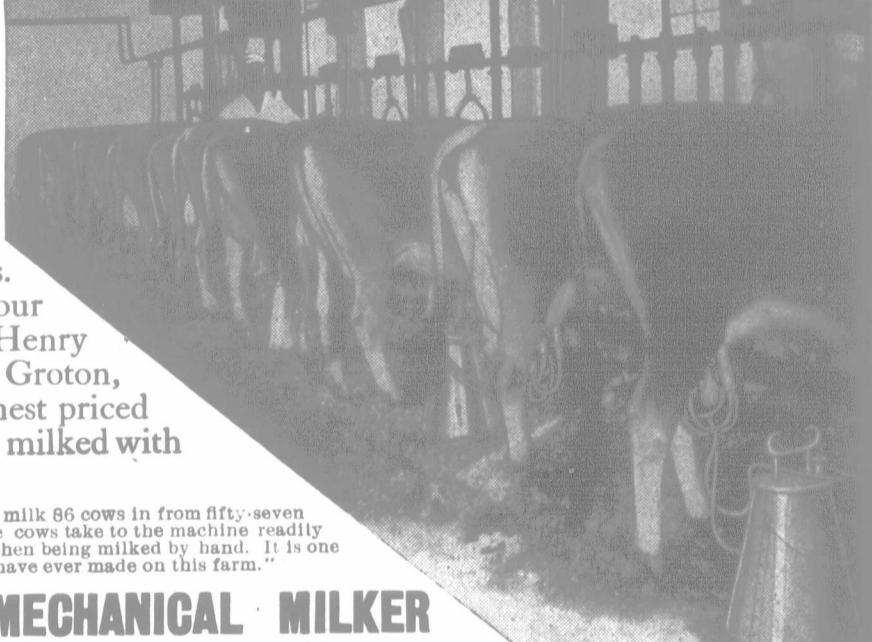
A few choice bulls ready for service, sired by King Posch De Kol; also a few young bull calves, sired by Prince Aggie Mechthilde, whose dam won first at Toronto, 1911, and sire's dam first in dairy test at Guelph, 1908 and 1909; his three nearest dams average over 25 lbs. butter in 7 days.

WALBURN RIVERS, FOL DEN'S, ONTARIO

Evergreen Stock Farm offers a choice lot of bulls ready for service, from high-testing, deep-milking Record of Merit ancestors. Also a few females for sale. Herd headed by Francy Sir Admiral; dam's record 26.71, sire Sir Admiral Ormsby. Write for prices. F. E. PETTIT, Burgessville, Ont.

\$300 TO \$1000 A YEAR IN EXTRA PROFITS FOR YOU

This is not a mere claim. It is the actual experience of all owners of Sharples Mechanical Milkers. We don't ask you to take our word, nor their word, for this. We stand ready to prove it on your own cows or no sale. Mr. Henry Fielden, Supt. Branford Farms, Groton, Conn., where some of the highest priced Guernsey cows in the world are milked with a Sharples Milker, writes:



"Two men with the Sharples Milker milk 86 cows in from fifty-seven minutes to an hour and a quarter. The cows take to the machine readily and seem much more contented than when being milked by hand. It is one of the most profitable investments we have ever made on this farm."

THE SHARPLES MECHANICAL MILKER has the "Teat Cup with the Upward Squeeze," which pushes the blood back with each pulsation, overcoming the stumbling block of all former mechanical milkers. It leaves the teats in a perfectly normal condition, the same as after hand milking. The cow is treated so gently she enjoys it, and fears no injury, no abuse. She stands perfectly contented giving down her milk more readily and more freely than when milked by hand. The yield is increased—your dairy profits grow. Read this letter from Hon. Wm. C. Sproul, Chester, Pa.

"The Sharples Mechanical Milker seems to be entirely comfortable to the cows; in fact, our cows are in much better condition now than they were when the milker was started, and the quantity of the milk has increased about ten per cent. Altogether, I consider it about the most satisfactory investment about my dairy."

Fill Out the Coupon—Send for Catalog Today Let us tell you how we will put a Sharples Milker in your dairy and guarantee it to give you perfect satisfaction or no sale. We prove it does the work to your satisfaction. We give you ample time for trial. Send the coupon now for catalog. Guaranteed by a company that has been making high-class dairy machinery for 31 years.

THE SHARPLES SEPARATOR CO. WEST CHESTER, PA. Chicago, Ill.; San Francisco, Cal.; Portland, Ore.; Dallas, Tex.; Toronto, Can.; Winnipeg, Can.

The Sharples Mechanical Milker has few parts, is easily cleaned, and produces milk of the lowest bacterial content. It milks the cow cleaner than the average hand milker.

THE SHARPLES MECHANICAL MILKER. Name, P. O., State, I am milking cows at present. The Sharples Separator Co. Send me the Catalog of the Sharples Mechanical Milker.



## Get More Wool Get Longer Wool Get More Money

for your wool by shearing with a Stewart machine because such wool has a longer fibre. Wool buyers pay more for long staple—and you get the longest by shearing with a Stewart No. 9 Ball Bearing Shearing Machine



This is, without question, the most perfect hand operated shearing machine ever devised. Has ball bearings in every part where friction or wear occurs. Has a ball bearing shearing head of the latest improved Stewart pattern.

Price of machine, all complete, including 4 combs and 4 cutters of the celebrated Stewart quality is

Only \$15.75

Get one from your dealer, or send \$2.00 and we will ship C. O. D. for balance. Money and transportation charges back if not pleased.

Chicago Flexible Shaft Company  
110 La Salle Ave., Chicago, Ill.  
Write for big new catalogue showing the most complete and modern line of Horse Clipping and Sheep Shearing Machines on earth.

## MOVE TO CHILLIWACK

BRITISH COLUMBIA

On the Sunny Pacific slope, where the winter lasts one month, and where the farmer receives larger returns on his investment than anywhere else in Canada. Write for free illustrated booklet.

Sec'y Board of Trade, Chilliwack, B. C.

## LINCOLN LONG-WOOL SHEEP And Shorthorn Cattle.

The Riby Grove Flock and Herd, owned by

MR. HENRY DUDDING,

Is the source to which practically all the leading export buyers have resorted from time to time to obtain stud sires and dams, and rams and ewes of unrivalled merit and quality. The record of its show-yard success is unequalled, and so are its sale averages. Selections of Sheep and Cattle always for sale.

Apply: THE OWNER, RIBY GROVE,  
STALLINGBOROUGH, GRIMSBY, ENGLAND

## Southdown Sheep

Orders taken now for this season's delivery. A few choice lambs and shearlings on hand. Every animal shipped is guaranteed.

## Angus Cattle

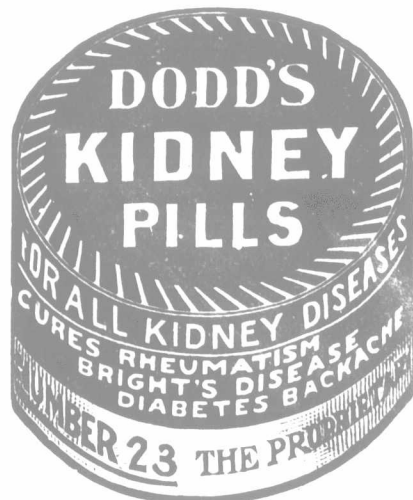
Write, or come and see my young bulls and heifers. They are going at farmers' prices.

ROBT. McEWEN, Byron, Ont.

**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, 448 S. Dearborn St., Chicago, Ill.

"They say that when an ostrich is surprised he hides his head in the sand." "I wish he'd everlastingly hide his tail there," observed the man who had just settled a heavy millinery bill.

"When I was a tiny boy with ringlets," said the man with little hair, "they used to call me Archie." "I suppose now they call you Archibald."



## QUESTIONS AND ANSWERS. Miscellaneous.

### CELLAR FOR SILO—CHESS.

1. I would like very much if you would kindly advise me in the matter of a silo. Would a root cellar, floored and double lined all around, answer the purpose, with proper ventilation. Would it be better without ventilation, or would it be too warm?

2. I would like to know if the readers of "The Farmer's Advocate" are under the impression that damaged fall wheat will grow chess, or will it grow chess under any circumstances? D. S.

Ans.—1. A root cellar would not be satisfactory as a silo under any conditions. It is necessary that about an inch and a half of silage be removed each day to prevent loss from spoiling, and the average root cellar has too much surface to permit of this. Besides, to make the best silage, it is necessary to get the material ensiled thoroughly packed and settled. This can only be accomplished in an upright structure of comparatively small diameter. Trouble would be found in preventing molding in silage in a cellar. The project is not feasible. Air must be excluded, thus ventilation is impracticable. Better build a silo.

2. Some people believe that when wheat is winter-killed, much of it turns to "chess," or "cheat," as it is sometimes called. This is not the case. Wheat never produces chess, and to get it, it must be sown. When the wheat kills out, the chess, being hardier, usually survives, and stools or tillers greatly because of the abundance of sunshine and plant food it gets. This leads many to believe that it is wheat, changed through winter injury, as much more of it is produced than appeared in the seed sown.

### INTEREST—UNTHRIFTY MARE —ALFALFA—ORCHARD—PROPERTY.

1. How much interest will come on nineteen hundred dollars in course of a year, at 5 per cent.?

2. A mare six years old is badly run down this winter; gets lots to eat; eats well. Two weeks ago I drew out two rotten teeth. There are indications of sores at the top of her hind heels. Do you think her blood is impure? If so, what should I give? Is there any remedy for a horse with tender mouth? How could I stimulate a slow horse, to make him move faster?

3. Could I get a good stand of alfalfa on a low piece of land?

4. How much onion seed would it take to an acre of land? What width between rows?

5. Please give instruction with what kind of stuff I can spray an acre of orchard, and how to mix it.

6. Please inform me how a man can turn his stock and property over to his wife or son? SUBSCRIBER.

Ans.—1. Ninety-five dollars.

2. Have her teeth attended to. The sores on heels are likely cracked heels. Purge her with 8 drams aloes and two drams ginger. Follow up with 1½ ounces Fowler's Solution of Arsenic twice daily for a week. Apply locally three times daily a lotion made of one ounce each of sulphate of zinc and acetate of lead to a pint of water. Do not wash. For tender mouth, avoid jerking or harsh treatment with the bit. Treat the sores with a little healing ointment. Wrapping the bit is sometimes practiced. The best place to put the stimulant for a slow horse is in the manure. Give plenty of good hay and oats. Some lazy horses require a whip.

3. Alfalfa does best on high or well-drained soil. If your low land is well underdrained, and water does not stand on it, you might get a good stand otherwise it would be doubtful.

4. About three to four pounds for horse culture, and about six pounds for hard culture. For horse culture, use about two pounds per acre, for hard culture, about four pounds per acre.

5. See the "Spraying" article, which will be published in the issue of March 25th.

6. See the "Wills" article, which will be published in the issue of March 25th.

## For the Land's Sake use Bowker's Fertilizers

They enrich the earth and those who till it. By the use of a good fertilizer, any farmer can add greatly to his profit through raising bigger crops. He can make each of his acres produce more, or he can cultivate fewer acres, and still produce as much as he is getting now, but with less labor and expense. This is a big item, if hired help is scarce.

We have a fertilizer to fit every crop and every pocketbook. Each one is ready to use, and easy to apply. Our catalogue gives full information and directions. Many years of experience in both Canada and the United States, the best facilities, and prompt service are behind every bag we ship.

If we have no agent near your farm, we want one. It pays to sell as well as use our fertilizers.

Write today for our catalogue and calendar. Both will be sent promptly and without cost. If interested, ask for agency proposition, but write anyway for the catalogue.

**BOWKER Fertilizer Company,**  
77 Lyman St., Buffalo, N. Y.  
Original and largest manufacturers of special fertilizers.

## WE WILL IMPORT OXFORDS

the coming season, or any other breed. Breeders wishing to get a few head of their favorite breed should write at once to us. One of the firm selects in person, and will select yours if you write us stating just what you want. We are in the market for Oxford rams, and will buy from one up to any number. State price, age and it recorded or eligible.

PETER ARKELL & SONS, TEESWATER, ONT.

## Imported Sheep

I am leaving for England about the middle of April to personally select my sheep. Anyone wanting imported sheep will do well to write me.

Will import any breed. On account of my connections in England, I can import cheaper than any other importer. Write me at once for all information.

C. HODGSON,

Box 92, Brantford, Ont.

### Large White Yorkshires



Have a choice lot of sows in pig. Boars ready for service and young pigs of both sexes supplied not akin, at reasonable prices. All breeding stock imported, or from imported herds. Write or call on:

**H. J. Davis, Woodstock, Ont.**  
C. P. R. and G. T. R. Long-distance phone.

**The Tamworths in Canada**—I have a particularly nice lot of young Tamworths just now of both sexes, from youngsters up to breeding age. If you want the best types of the breed, write me. **HERBERT GERMAN, St George Ont.** Long-distance phone.

### HAMPSHIRE SWINE

Both sexes and all ages, from imported stock. Prices reasonable.

**C. A. POWELL,** Arva, Ontario  
Four miles north of London

### ELMHURST LARGE ENGLISH BERKSHIRES

Present offering: Select sows bred for spring farrow. Choice boars ready for service also younger stock, the get of Duke of Somerset imp., and lot of imported dams. Satisfactory and safe delivery guaranteed. **H. M. VANDERLIP, Breeder and Importer** CA'NSVILLE P. O., Long-distance phone, Brantford and Hamilton Radial.

### Newcastle Tamworths and Clydesdales

Present offering: 13 boars, from 2 mos. to 1 year. Sows same age, some bred and ready for service. Several yearling sows that have space, one litter each. All by imp. by Ar. dam by Col. of Choice. One of our champion boars, 1911, 214 and 215. A younger or two choice Clydesdale fillies for sale. **H. J. Thomas,** Arva, Ontario.

**A. A. COLVILLE, NEWCASTLE, ONTARIO**

### Maple Villa Yorkshires and Oxford Downs.

We offer 30 splendid service sows, 150 young pigs, all ready and ready to breed; also ewes, etc. **W. E. WELLS, Bond Head, Ont**

### Hampshire Swine

Swine in all stages of breeding. **Bros. Cross,** Newton St.

### Maple Grove Yorkshires

ARE EQUAL TO THE BEST.

Present offering: Twenty-five sows bred to farrow from Aug. to Oct. All first-class, bred to No. 1 quality boars. All big, roomy, growing stock, and ranging from six months to two years old. Eight young boars fit for use; choice long fellows of excellent breeding, and younger pigs of various ages. Pairs not related. Our prices will suit the average farmer, but are consistent with the best quality. Stock shipped C. O. D. and on approval. Correspondence and personal inspection invited. Long-distance phone via St. Thomas.

**H. S. McDIARMID, FINGAL, ONTARIO.**  
Shedden Station, P. M. and M. C. R.

### Tamworths and Poultry

We can supply Tamworth Swine both sexes and any age, bred from the champions of Canada; show stock a specialty. Also Toulouse Geese, Pekin Ducks and S. C. White Leghorns. **D. DOUGLAS & SONS, Mitchell, Ontario.**

### Duroc Jersey Swine

A choice lot of boars fit for service. **WANTED**—Twenty dairy calves, seven to twenty days old, grades or pure bred; state price F.O.B. **Mac Campbell & Sons, Northwood, Ont.**

### W. E. WELLS, Bond Head, Ont

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Don't waste money on imported mixtures. You have no guarantee of their strength—and besides, you must pay heavy duty. We are the only house in Canada selling straight fertilizing chemicals, of guaranteed analysis.

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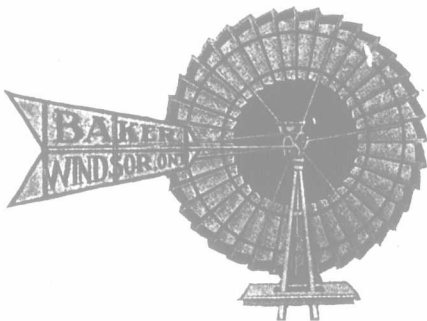
- MURIATE OF POTASH —guaranteed 50% actual Potash
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Windsor, Ontario

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Special Trains leave Toronto 2.00 p.m. on  
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Second class tickets from Ontario stations to principal Northwest points at

LOW ROUND-TRIP RATES

Winnipeg and return \$34.00; Edmonton and return \$40.00, and to other points in proportion. Tickets good to return within 60 days from going date.

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Through to Edmonton via Saskatoon, also to Winnipeg and Calgary via Main Line on all excursions. Comfortable berths, fully equipped with bedding, can be secured at moderate rates through local agent.

Early application must be made.

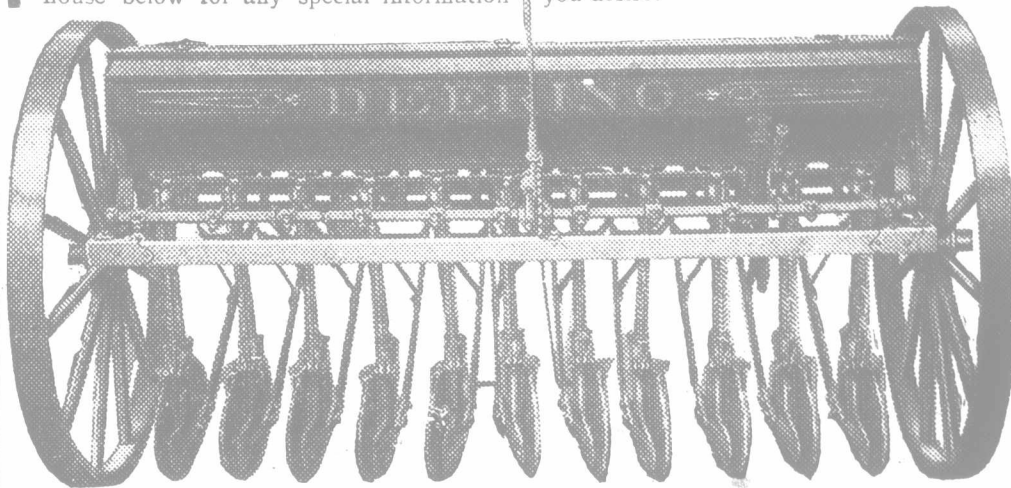
ASK FOR HOMESEEKERS' PAMPHLET containing rates and full information.

Apply to nearest C.P.R. Agent or J. C. MURPHY, Dist. Pass. Agt., Toronto.

BY DIRECT LINE NO CHANGE OF CARS

## Light Draft Deering Drills Sow Seed Evenly at the Right Depth

PLANT wheat, rye, flax seed or any other small grain with the Deering Drill. Ten minutes after you are through with the small grain you can change to plant corn, peas, beans or other large seeds, with the same Deering. The Double Run Force Feed makes this possible—one run with large opening and one with a smaller opening. There are other Deering features. For example, the disk bearings on Deering Drills are practically dust proof. The oil comes in contact with the inner edge of the bearing surface first, oiling from the inside toward the outside. Instead of allowing dust or dirt to work in, the outward path of the oil and constant supply tend to force out any grit or dirt which may have worked into disks when not needed, saving wear and draft. Deering Drills are made with 11 or 13 disks. On the 13-disk drills, the feed is divided into two parts so only one side need be used at the end of the field, saving seed. On special order, a complete Deering tillage line, including disk, spring scufflers, seeders and land rollers, merits your attention. See the Deering agent in house below for any special information you desire.



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Buy our famous, superior home-grown and imported seeds. Ask for catalogue. Order our famous Special Collections.

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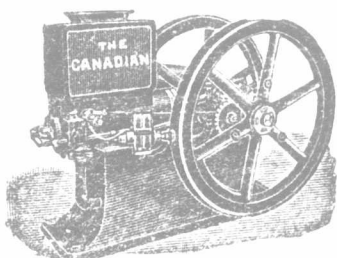
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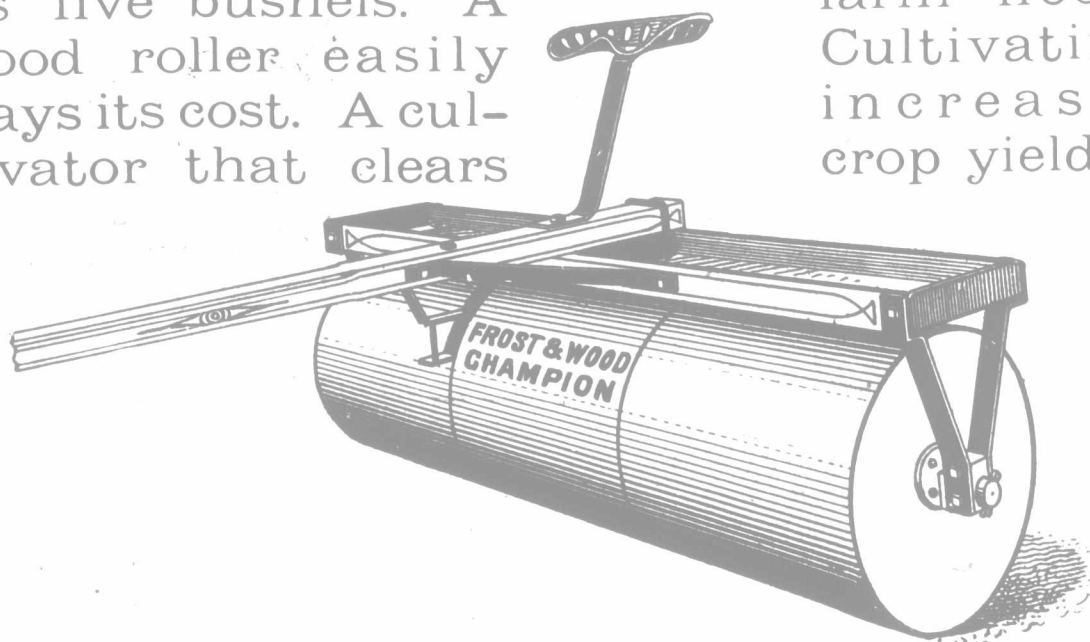


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LAND Rollers properly used increase the wheat yield per acre as much as five bushels. A good roller easily pays its cost. A cultivator that clears

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### F. & W. "CLIMAX" CULTIVATOR

THIS cultivator is built entirely of metal parts solidly riveted together to make a strong and rigid machine. The drag bars and braces are best steel.

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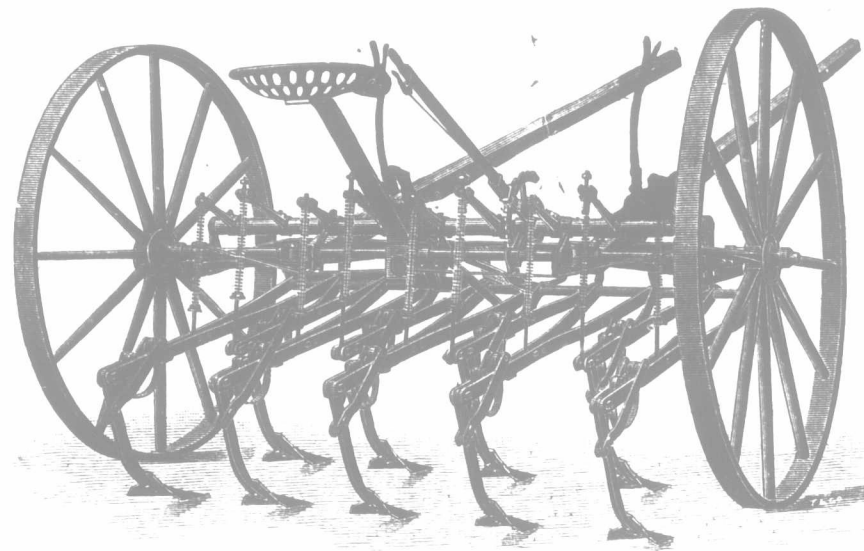
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