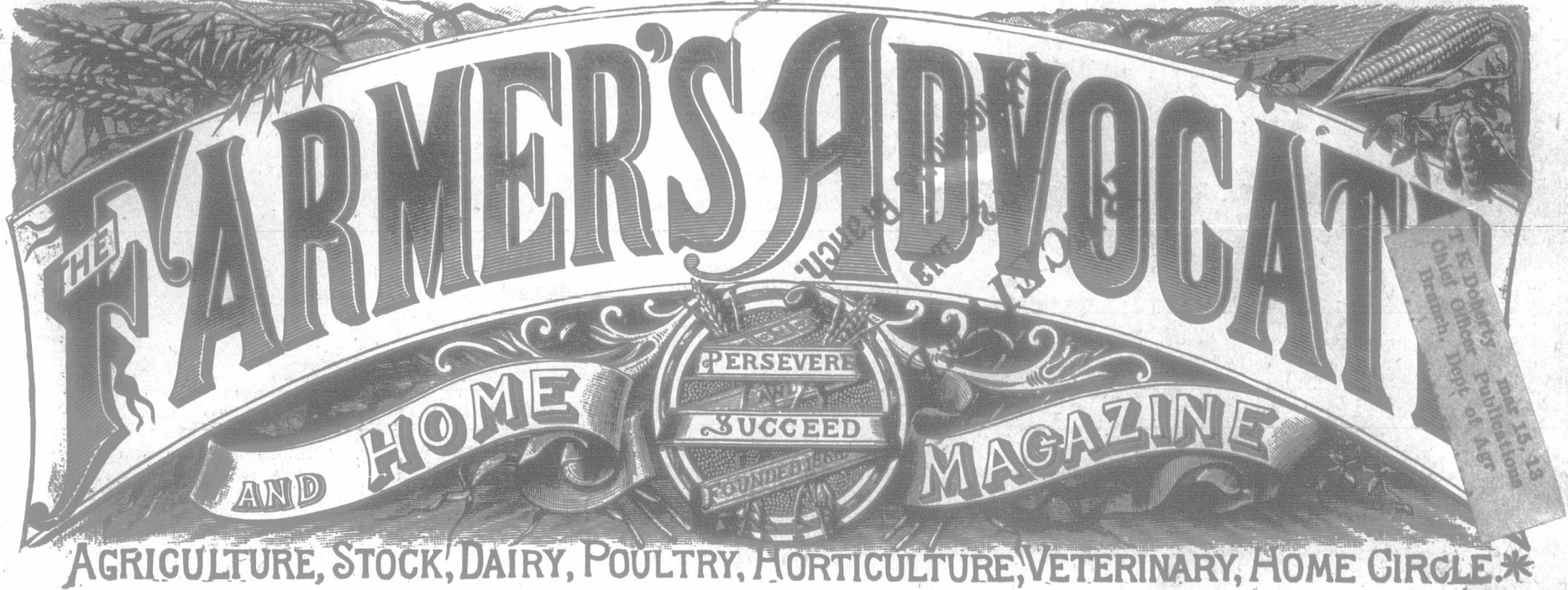


PUBLISHED EVERY WEEK. \$1.50 PER YEAR.



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

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VOL. XLVIII.

LONDON, ONTARIO, MARCH 20, 1913.

No 1069



The Independent Desk Set.—The very latest thing in Magneto Desk Telephones

Merely To Show The Up-to-dateness

WE print the above illustration of the very latest thing in desk telephones merely as an example of the up-to-dateness of our telephones and equipment. We claim that our telephones are superior in design, material and workmanship to any others on the market. We are prepared to furnish the proof by allowing you to try them on your line, free of charge. In that way you can judge their quality and efficiency before risking a cent. Write for illustrated description of this set.

Information Gladly Supplied

WE are prepared at all times to supply you with any information desired about telephones and telephone materials. We maintain a big, strong organization of experienced telephone men and qualified telephone engineers, who will plan the construction of your system on the most up-to-date lines, and solve any operation problem you may have.

The service we render our customers is certainly very complete and efficient. But we are so closely interested in the success of all independent local and municipal companies, as their success means our success, that it is to our advantage to look after them well.

Write for our No. 3 Bulletin, which gives full particulars about the latest methods of building telephone lines. A copy will be mailed to you free on request. We also send you an illustrated description of our portable telephone or test set if you are interested.

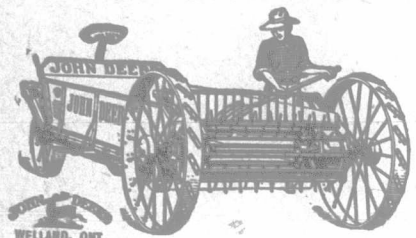
If there is no telephone system in your locality, there certainly should be. Your locality surely shouldn't lag behind others which are enjoying the business and social benefits of up-to-date telephone service.

Write us, and we will tell you the necessary steps to take to organize a local or municipal system for your locality.

Canadian Independent Telephone Co., Ltd.
20 Duncan Street, Toronto

John Deere Spreader

The Spreader with the Beater on the Axle



Take any manure spreader you have ever seen, remove all the clutches and chains, all the countershafts and stub axles, do away with all adjustments and mount the beater on the rear axle. Rebuild the spreader so that the top of the box is only as high as your hips. Make it stronger. Remove some two hundred trouble-giving parts and throw them away. You will have some sort of an idea of what the John Deere Spreader, the Spreader with the Beater on the Axle, is like.

The Beater on the Axle

The beater and all its driving parts are mounted on the rear axle. This construction is patented. You cannot get it on any other spreader made.

Power to drive the beater is taken from the rear axle through a planetary transmission (like that on automobiles). It is positive, runs in oil, and does not get out of order.

Few Working Parts

The John Deere Spreader is so simple that there are no adjustments. It has some two hundred less parts than the simplest spreader heretofore made.

There are no clutches to throw it into gear. The lever at the driver's right is moved back until the finger, or dog, engages a large stop at the rear of the machine. All the chains and adjustments have been done away with.

Only "Hip-High"

Because the beater is mounted on the rear axle, it is only "hip-high" to the top of the box. Each forkful of manure is

put just where it is needed. You can always see into the spreader.

Roller bearings, few working parts, the center of the load comparatively near the horses, and the weight distributed over four wheels, make the John Deere Spreader light draft.

Spreader Data Free—Tells about manure, when and how to use it, how to store it, and a description of the John Deere Spreader. Ask for this data as Package No. Y 119

John Deere Plow Company, Limited
Toronto, Ontario

PUMPING

With a "GOES LIKE SIXTY" Pumping Outfit.

No more backaches. No more waiting for the wind. The Gilson 60 SPEED is the ideal pumping engine. It "GOES LIKE SIXTY". Furthermore, it is a portable power house, ready to operate pour wash machine, cream separator, churn, electric light dynamo, wood saw, feed cutter, grinder, pulper, etc. It is mounted on wheels, complete with line shaft, five interchangeable pulleys, and universal pump jack.



The only engine, fully equipped, ready to yield 100% service. A powerful, durable engine, built to last a lifetime. The simplest engine on the market. A child can operate it.

Write for full particulars and also catalogue of pumps, pump jacks, wood saws, etc.

GILSON MANUFACTURING CO.,
301 York St., Guelph, Ont.

The Anthony Fence

Made in Canada



The Anthony Knot

A fence that is tied with a perfect lock. A lock that is strong, neat and compact. A lock that will not loosen by expansion and contraction from heat and cold. A lock that won't come off.

The Anthony Fence is made of all No. 9 wire, which is thoroughly galvanized.

The Anthony Fence will not bend down at the top or roll up at the bottom, but will stand up straight when erected.

The Anthony Fence will stop anything from a pig to a bull.

If you are interested in a fence like this, write for full descriptive catalogue. Live agents wanted in all unoccupied territory.

THE ANTHONY WIRE FENCE CO. OF CANADA, LIMITED
WALKERVILLE, ONTARIO

CANADIAN PACIFIC EXCURSIONS

To Manitoba, Saskatchewan, Alberta

HOMESEEKERS

Low Round Trip Rates each Tuesday, March to October inclusive

Winnipeg and Return - - \$35.00
Edmonton and Return - - \$43.00

Other points in proportion
Return Limit 60 days.

TOURIST SLEEPING CARS
on all excursions. Comfortable berths, fully equipped with bedding, can be secured at moderate rates through local agent.

SETTLERS

For settlers traveling with live stock and effects.

SPECIAL TRAINS

Will leave Toronto Each TUESDAY March and April 10.20 p.m.

Settlers and families without live stock should use

Regular Trains

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COLONIST CARS ON ALL TRAINS
No charge for berths.

Through Trains Toronto to Winnipeg and West.

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The "Empress of Asia" will leave Liverpool June 14, calling at Madeira, Cape Town, Durban, Colombo, Singapore and Hong Kong, arriving Vancouver August 30. Vessel remains 14 days at Hong Kong. "Rate for Entire Cruise, \$639.10," exclusive of maintenance between arrival time in England and departure of "Empress of Asia," and stop over at Hong Kong.

Full particulars from any C. P. R. Agent, or write M. G. Murphy, District Passenger Agent, Toronto.

CARTER'S TESTED SEEDS ENGLISH SEEDS

Known, sown and grown the world over. Wherever used they make extraordinary records for productiveness. In one test continued over a period of five years, in a Canadian Agricultural College, Carter's Tested Seeds gave the highest yield against nineteen competitors. Carter's Seeds are perfectly adapted to Canadian soils and climate. To bring farming and gardening to the highest degree of success, growers should sow Carter's selected pedigree tested seeds.

Send for 1913 Catalogue—FREE

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Sole Agents in Canada for James Carter & Co., of London, Eng. Seed Growers to His Majesty King George V

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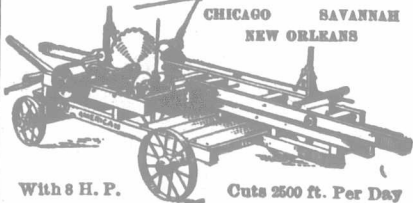


MAKE THE FARM PAY IN WINTER

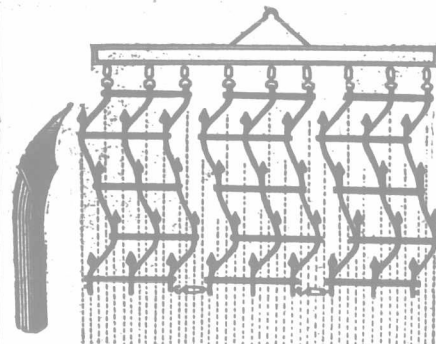
You can make winter a harvest time, with money-making crops of lumber, if you have an "American" Portable Saw Mill. Your own wood lot, and your neighbors' await your axe and your saw and your mill, ready to yield a valuable crop of first-class lumber that will find a ready local sale at good prices. You have the team, the time and the engine. Buy an inexpensive "American" mill and you'll have all the outfit you need to do a profitable lumbering business. Start with your own wood lot, then work out into the country around you. Every wood lot has money in it for you. Show its owner how you can make lumber and money for him. Begin by sending to us for our new book No. 23 which tells the story. Write nearest once today.

In the largest mill or on the farm the American is recognized as STANDARD.

AMERICAN SAW MILL MACHINERY CO.
118 Horse Street, Hackettstown, New Jersey
1804 Terminal Building, New York



With 8 H. P. Cuts 2500 ft. Per Day



Erie Lance Tooth Harrow

Is the finest and most useful article that can be placed on a farm. The teeth are so shaped that they tear rough ground, and cultivate and make the finest seed bed possible. Once used on a farm, it will be the last implement parted with. Made strong and adapted to the roughest usage. 2-section set, \$10.00; 3-section set, \$15.00; 4-section set, \$20.00. Each section covers 3 feet of ground in width.

Erie Iron Works, Limited
MAKERS
St. Thomas, Ont.

STUMP EXTRACTOR

If you are troubled with stumps, give our "Patent Samson Stump Extractor" a trial. It has now been in use in Europe for the past three years with the greatest success. By its assistance, two men will do the work of three men and a horse. It can also be used for felling trees.

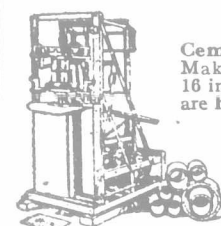
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Corn That Will Grow

Canadian-grown seed corn. Your money back if not satisfied.

J. O. DUKE, RUTHVEN, ONT.



"LONDON"

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., Dep't. B, London, Ont. Largest manufacturers of Concrete Machinery in Canada.

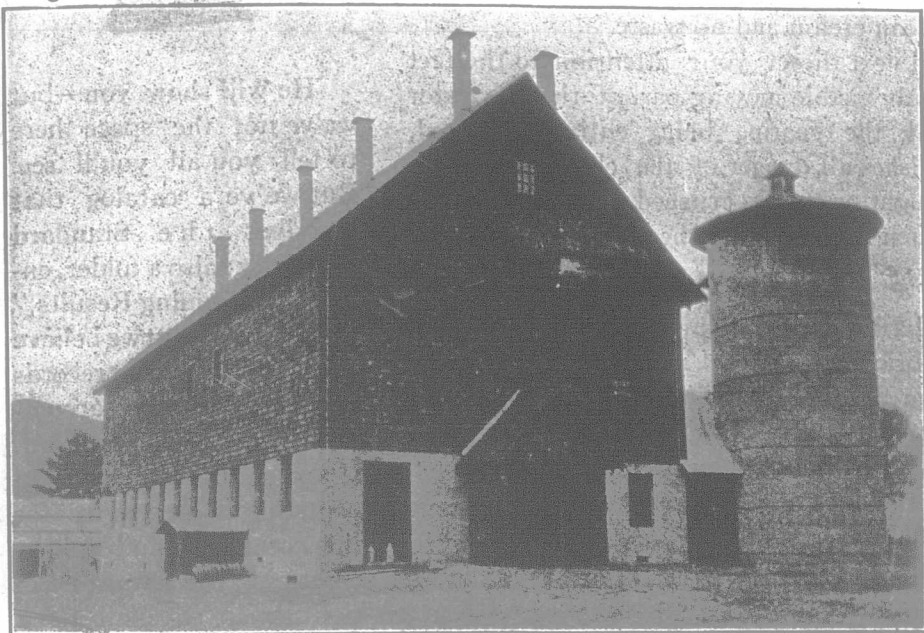
Seed Corn, Barley, Oats for Sale—High-grade seed of Improved Leaming Corn, Newmarket Oats of pedigree stock, and O. A. C. 21 Barley. For samples and prices write. W. A. BARNET, Mgr. Gov. Exp. Farm Harrow, Essex Co.

FIREPROOF COW STALLS

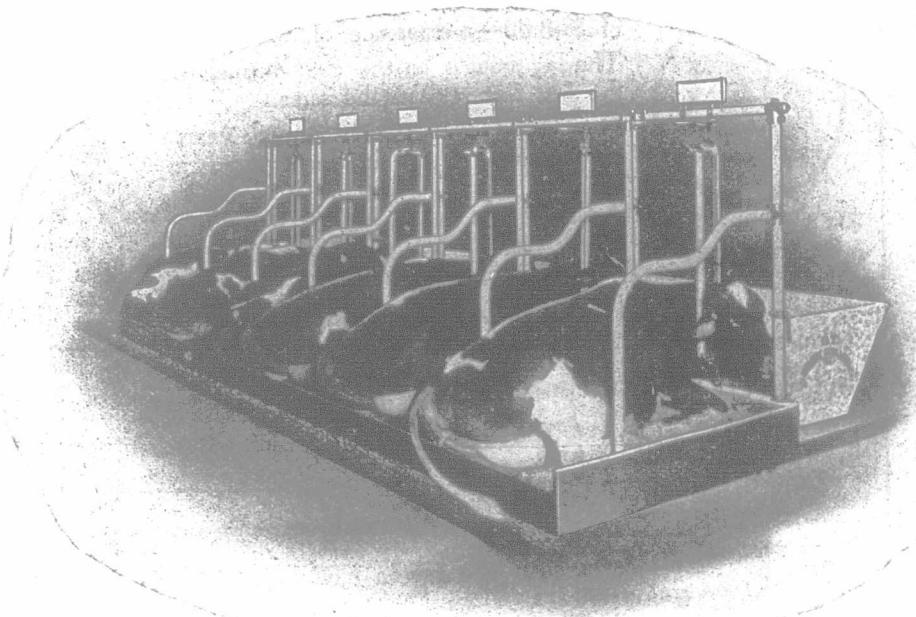
DO YOU SEE THESE CUTS? They show the barn on the Boys' Farm and Training School, Shawbridge, Quebec. It was built last year and equipped with 30 BT Steel Stalls. On April last fire broke out and devoured every vestige of material that would burn, leaving only the concrete walls, floors and BT Stalls. Mr. Matthews, Principal of the School, writes: "I am very glad I put in your Sanitary Steel Stalls. ONE DOLLAR makes them as good as ever after the fire. Had we put in wood stalls they would have been a total loss, and in burning they would have destroyed the floors." But that is not all.

THE STANCHIONS SAVED THE COWS

In a moment every cow could be released from the BT Stanchions. Thirty could be freed from the Stanchions while three would be if tied with chains. With cement floors and Steel Stalls the stable burnt slowly. Wooden stalls would be ablaze like a furnace before a single cow could be saved.



The Boys' Farm and Training School is located at Shawbridge, Quebec, near Montreal, and Mr. Matthews, the Superintendent, tells us that it now has some 60 city boys that it is training in Farm and Garden work. It is certainly doing splendid work in getting the boys back to the land. The first cut shows the new barn they built in 1911 and equipped with 30 BT Steel Stalls. The second cut shows the ruined barn after the fire. The third cut shows the BT Stalls. They went through the fire practically uninjured.

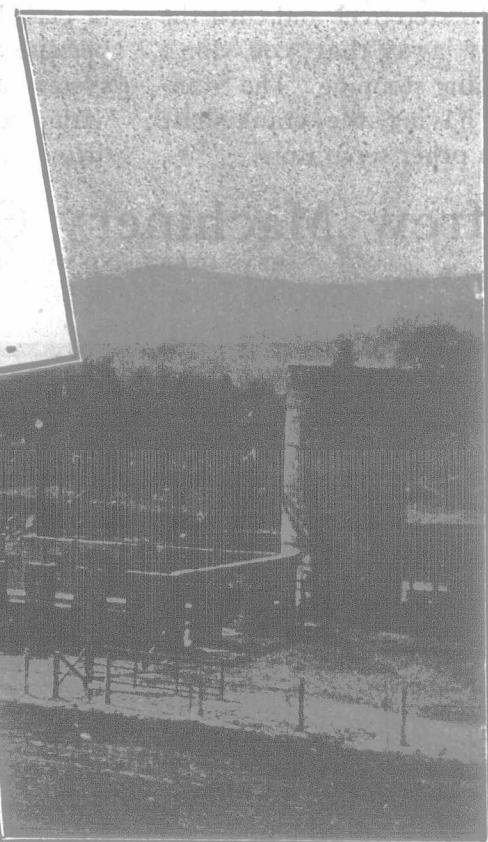


STEEL STALLS ARE INDESTRUCTIBLE

The BT Stalls have stood the severest test—made of steel they neither burn or rot. With steel stalls and a cement floor there is practically no limit to the durability of your stable. Your first cost is your only cost—there are no repairs. Surely when you consider this point alone you will say that they are a wise investment. Then, there are many other advantages—we can only tell you a little about them in the space we have here. Write for our book on Steel Stalls. It explains them all.

PUT BT STALLS IN YOUR NEW BARN

With Steel Stalls your stable is bright. The open construction of the stalls allows the sunlight to reach every corner. It permits a free movement of air throughout the stable. This abundance of fresh air and sunlight will do more than anything else to prevent disease among your cattle.



The benefit to the cow is indeed one of the great advantages of Steel Stalls. A cow tied in a BT Stall and Stanchion has the maximum freedom consistent with keeping her lined up in her stall. She can card herself on almost any part of her body. Tied centrally in her stall she is free to lie down on either side. She can freely get up or down, but at the same time she is prevented from moving backward and forward in her stall, so that she can be lined up on the cattle-stand and all droppings go into the gutter, not on the cattle-stand. That means clean and comfortable cows, and cow comfort means increased production.

EASILY SET UP

You can do it yourself. In two hours you can set up 20 BT Steel Stalls, and as soon as the cement is dry your stable is ready for the cattle. Isn't that better than buying expensive lumber and posts, getting it dressed, hiring expensive carpenters and boarding them for days while they put in your stable? You can remodel your stable yourself if you use BT Steel Stalls. From our book on stable construction you

get complete information as to how to lay cement floors—the best measurements for stalls and how to set them up quickly and properly.

GET OUR BOOK ON STALLS

Steel Stalls are not all alike. Last year the Dominion and several Provincial Governments built some 20 barns in different parts of Canada, and every one of them was equipped with BT Stalls and Carriers. Why? Our book will tell you. It shows how BT Stalls lessen abortion, do away with the principal causes of big knee, ruined udders and many other injuries which cows are liable to. You will see how our individual mangers save feed—prevent overfeeding and underfeeding. You will also learn how the exclusive features on the BT Stalls mean dollars and cents to you, by giving greater comfort and protection to your cows.

A barn is a permanent investment—don't undertake building it without getting the latest information. Our catalogue is free. It will surprise you how little it will cost to equip your barn with BT Stalls. Fill out the coupon now and let us tell you.

Write us
Fireproof
Use the



about
Cow Stalls.
coupon.

BEATTY BROS., 1025 Fergus, Ont.

Gentlemen:—Send me (free) your book, "How to Build a Dairy Barn," and your catalogue on BT Stalls.

How many cows have you?.....

Are you going to remodel or build?.....

If so, when?.....

Will you need to buy a hay track or litter carrier?.....

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ARRANGE YOUR BARN RIGHT

At a cost of over \$2,000 we have produced a book on stable construction. It tells how to build a dairy barn from start to finish. It shows how the upper structure should be built, and saves much money over the ordinary methods of framing. It gives the latest and best system of ventilation, which has been carefully prepared by J. H. Grisdale, Dominion Agriculturist. It gives barn plans approved by the best dairy authorities, tells how to lay cement floors properly. It gives proper measurements for manger, cattle-stand and gutters for any size or widths of barn.

THIS BOOK IS FREE.

WRITE US FOR IT.

FILL OUT THE COUPON.

BEATTY BROS., Limited, 541 Hill Street, Fergus, Ont.

We make Litter Carriers, Hay Carriers, Slings, Forks, etc.

What The Dealer Can Show You

GO and see the Standard cream separator at our agent's in your locality. It will strike you as being a handsome, compact convenient-looking machine.

First appearances will delight you. And naturally you'll want to know more about the

Standard

You'll want to know why it has earned the title of "The World's Greatest Separator." Our dealer will be glad to show you.

He will show you the low supply can. You will smile cheerfully when you notice that it is over one foot lower than the supply cans on ordinary separators. The high and awkward lifting of a pailful of milk are banished with the Standard.

Then he will get you to step over and turn the crank. You will see right away that you don't have to do any back-breaking stooping. The Standard eliminates that, by having the crank shaft four inches higher than on other separators.

Easy TO Clean

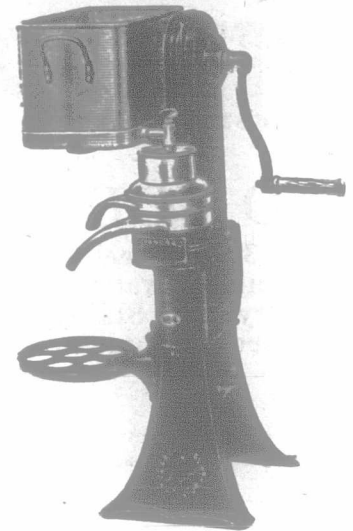
Next, he will show you the wide open bowl. You will observe that there are no milk or cream tubes to clog up. And the discs, on a special disc holder, can all be washed in a minute. If your wife is present, this feature will make her happy.

And when you are looking at the discs, the dealer will call your attention to the unusually wide space between the discs and the bowl. This space accommodates the impurities in the milk and prevents the discs getting clogged. It means absolutely clean cream and no waste.

He will next direct your attention to the fact that the only visible moving part of the separator is the crank, the gearing being entirely enclosed, which banishes all danger of the children getting clothes caught or fingers crushed should they venture to touch the machine when it is running.

Self - Oiling System

He will ask you if you can find any grease cups or glass lubricators on the machine. You can't, because the Standard hasn't any. Its self-oiling system automatically supplies the working parts with a continuous bath of oil. And the oil cannot drip on to the floor and be wasted either.



He will show you—but we've not the space here to tell you all you'll see. But we've a catalog that describes the Standard very fully; also a folder, entitled "Skimming Results," which gives what we believe are the world's records for close skimming accomplished by the Standard. If you cannot conveniently visit the dealer, write for this catalogue and folder. Of course, you'll want them right away, so mail us a card or letter promptly.

The Renfrew Machinery Company, Limited

RENFREW

HEAD OFFICE AND FACTORY
AGENCIES EVERYWHERE IN CANADA

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5% Debentures

Five per cent. allowed on Debentures.
Interest payable (by coupons) half-yearly.

Debentures issued in sums of \$100.00 and multiples thereof for terms of three to ten years, or shorter periods if desired.

Security to Debenture Holders

Paid-up Capital and Reserve, nearly \$3,000,000. Total Assets, over \$6,000,000.

To Trustees and Executors

The deposits and debentures of this Company are especially authorized by an Order-in-Council, Province of Ontario, as an investment for trust funds.

The Great West Permanent Loan Company

(Incorporated by Dominion Charter)

20 King Street West TORONTO, ONT.

Also offices at Winnipeg, Regina, Edmonton, Calgary,
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MONEY IN POTATOES



\$48⁰⁰ per acre
OR



\$128⁰⁰ per acre
WHICH?

When it comes to a difference of \$80 an acre on a potato crop, let us take off our hats to the Potato experts.

They can show a practical farmer how to turn an average crop of 120 bushels per acre into a bumper crop of 240 bushels. Simply changing a few old methods of potato growing does it. In this day of high prices, that means \$128.00 per acre clear profit instead of \$48.00—a difference of \$80.00.

The big profit is on the extra bushels because the first cost remains the same.

How experts worked it out through years of experimenting is told in simple words in our little book "Money in Potatoes."

A book full of sound ideas—no theory. Every difficulty you could have in potato growing is dealt with.

With this book to refer

to you can double your potato crop.

Send in the \$80.00 coupon for a free copy to-day.

17

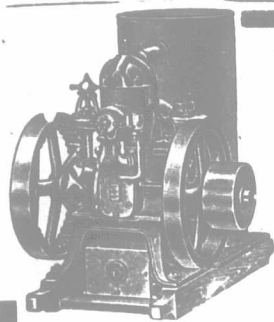
The \$80.00 COUPON

The Canadian Potato Machinery Co. Ltd., Galt, Ont.

As a Potato Grower I would like to have a free copy of your book, Money in Potatoes.

Name

Address



This Engine Runs on Coal Oil

Every farmer can afford an Ellis Coal Oil Engine. They give 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.

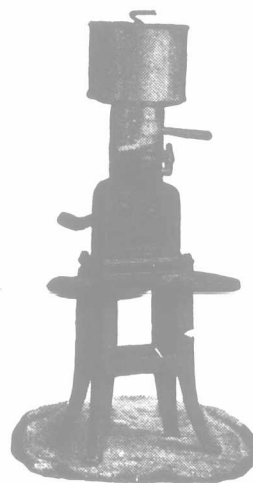
The strongest and simplest farm engine made; only three moving parts: nothing to get out of repair. Anyone can run it without experience. Thousands of satisfied customers use these engines to grind feed, fill silos, saw wood, pump, thresh, run cream separators, and do dozens of other jobs. Cheaper than horses or hired men. Fill up the tanks and start it running, and no further attention is necessary; it will run till you stop it.

FREE TRIAL FOR 30 DAYS—You don't have to take our word for it. We'll send an engine anywhere in Canada on Thirty Days' Free Trial. We furnish full instructions for testing on your work. It does not matter you send it back at our expense. We pay freight and duty to get it to you and we'll take it back if you don't want it.

Absolutely guaranteed for 10 years. Write for free catalog and opinions of satisfied users. Special offer in new territory.

3 to 15 horse-power
We Pay Duty and Freight

Ellis Engine Co., 94 Mullett Street
DETROIT, MICH.



We give a FREE TRIAL of the

Domo Cream Separator

Think of it! We send this high-grade, easy-turning machine on approval, freight prepaid, to test at our expense. We take all the risk. Prices from \$15 and upwards, about half what you pay for others, and you can be the judge of its merit. Write to-day for circular "A," which gives full particulars of our trial offer, with prices and easy terms of payment. It's FREE.

DOMO SEPARATOR CO.

Brighton, Ont.

St. Hyacinthe, Que.

CONCRETE roads save the public money, their cost of maintenance is so low.

Concrete roads are within the reach of every community—the first cost is very little more than that of a good macadam road; the ultimate cost is infinitely less.



THE cost of maintaining 33 miles of concrete road in Wayne County, Michigan, does not exceed \$6.00 per mile per year.

It costs Peel County, Ontario, \$900.00 per mile to maintain macadam roads for the same period.

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S \$80 e off

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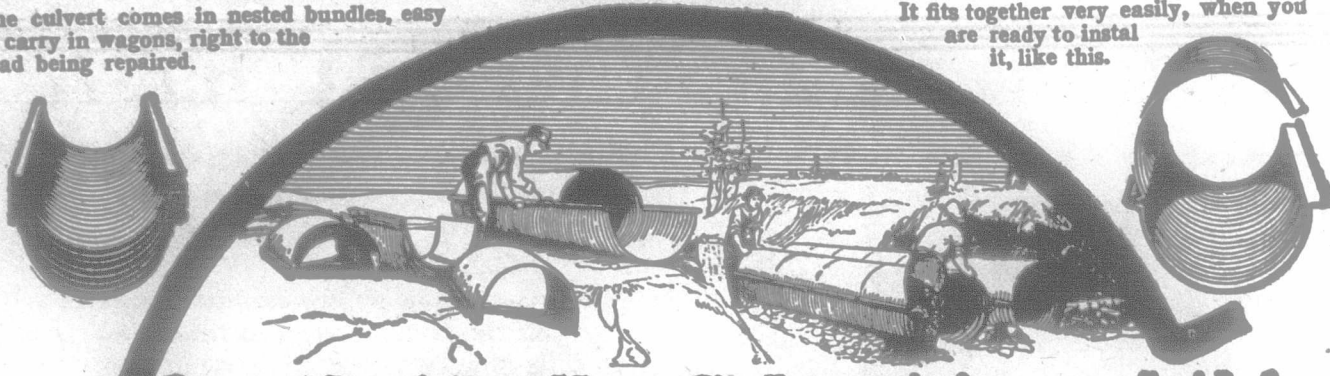
IRON
The Canadian Potato Machinery Co. Salt, Ont.
Potato Grower Like to have copy of your y in Potatoes.

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-turning st at our \$15 and and you y for cir- ial offer, FREE.

ne, Que.

The culvert comes in nested bundles, easy to carry in wagons, right to the road being repaired.

It fits together very easily, when you are ready to install it, like this.



See that Pedlar Culvert is used this Year on Your Roads

HAVE your township use Pedlar "Toncan Metal" Culvert instead of wood or concrete. Frost and ice cannot break it. It will not wash out. It is good for years and years, because "Toncan" is a non-corroding metal. It needs almost no excavating, and is set in an hour or two. This Pedlar Culvert is famous. It has been installed in hundreds

FREE

A Sample of our Culvert and a Special Book about it to any Farmer or Reeve or Municipal Officer —

of bridges and road culverts. Get our free miniature sample and book on this

culvert, and see that it is used this year. Send now. Learn how to permanently improve roads with little work. It makes good roads in your township. See the Reeve uses it.



This is all the excavation you need for a Pedlar Culvert. Wood or Concrete would need five times as much. See how easy it is to install. It saves work and money.



Note how Pedlar Culvert makes a perfect gateway.

Improve Your Farm With Pedlar Culvert

Remember that you, personally, can bridge farm ditches and drains with Pedlar Culvert. You can use it as well-curbing instead of stonework. You can bridge your gateway entrance. Pedlar Culvert cannot wash out, is frost-proof, is easy to install, and above all is in non-corroding "Toncan," not steel.



Use Pedlar Culvert and bridge your open drains.

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NO-MONEY-IN-ADVANCE
PAY AFTER IT HAS PAID
FOR ITSELF

LET US SEND YOU ANY OF THESE SPRAYERS—to try for 10 days, then if you buy, you can pay us cash or we'll wait till you sell your crop, then you can pay us out of the "extra profit." We pay freight. Wholesale dealers' prices.



Man-Power Potato and Orchard Sprayer.
Sprays "anything"—potatoes or truck, 4 rows at a time. Also first-class tree sprayer. Vapor spray prevents blight, bugs, scab and rot from cutting your crop in half. High pressure from big wheel. Pushes easy. Spray arms adjust to any width or height of row. Cheap in price, light, strong and durable. GUARANTEED FOR FIVE FULL YEARS. Needn't send a cent to get it "on trial." You can get one free if you are first in your locality. Write today.

Horse-Power Potato and Orchard Sprayer.
For big growers. Most powerful machine made. 60 to 100 gallon tank for one or two horses. Steel axle. One-piece-heavy-angle-iron frame, express wood tank with adjustable round iron hoops. Metal wheels. "Adjustable" spray arms and nozzles. Brass ball-valves, plunger, strainer, etc. Big pump gives vapor spray. Warranted for five years. Try this machine at our expense with "your money in your pocket." See free offer below. Write today.

Fits-All Barrel Sprayer.
Fits any barrel or tank. High pressure, perfect agitation, easy to operate. Brass ball-valves, plunger, strainer, etc. Automatic strainer. No "cup leathers or rubber" about any of our sprayers. Furnished plain, mounted on barrel, or on wheels as shown. Five year guarantee. It don't cost you "a cent" to try it in your orchard. Get one free. See below. Write today.

FREE—Get a sprayer FREE.—After you have tried the sprayer and are satisfied that it is just as we recommend it, send us a list of the names of your neighbors and we will write them and quote them price and have them call and see your machine work, and for every Fits-ALL Sprayer we sell from your list we will credit you with \$2.00 or send you check if you have paid cash.
For every Man-Power Potato and Orchard Sprayer we sell we will credit you with \$3.50 or send check.
For every Horse-Power Potato and Orchard Sprayer we sell we will credit you \$8.50 or send check.
We do all corresponding and selling. All you need do is to show the sprayer. Many have paid for their sprayer in this way. This offer is good for only the first order in each locality. Don't delay. Send the coupon or post card NOW.

THE ONTARIO SEED COMPANY, SUCCESSORS, 138 KING STREET, WATERLOO, ONTARIO

COUPON—Fill Out and send to-day This Coupon will not appear again.
THE ONTARIO SEED CO., Successors, 138 King Street, Waterloo, Ontario
Send me your Catalogue, Spraying Guide, and "special offer" on the sprayer marked with an X below.
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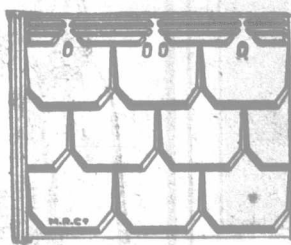
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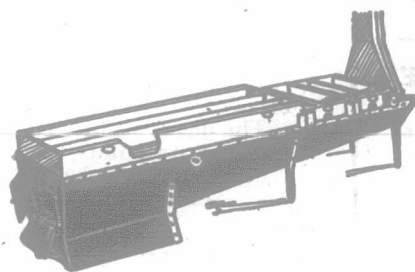
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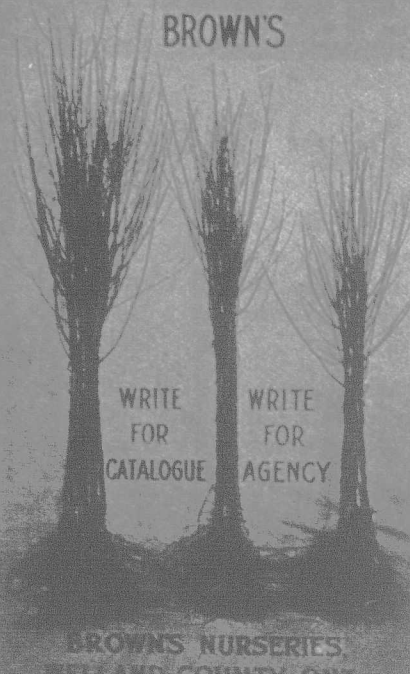
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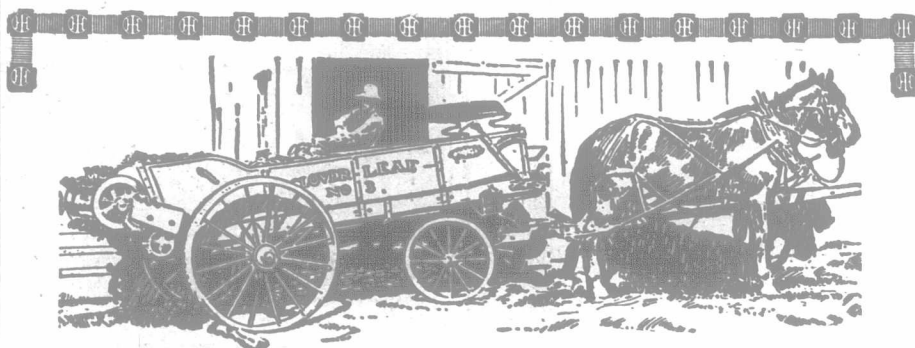
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This unsolicited recommendation from a man who had used an I H C spreader, and therefore knew what it would do, carried weight with his hearers. They might have doubted whether an I H C manure spreader would spread soft coal—but there was no doubt in their minds that an I H C spreader had spread manure to this man's entire satisfaction. This is a typical case showing what users think about

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The local agents handling these machines will show you all their good points, and will help you decide on the one that will do your work best. Get literature and full information from them, or, write the nearest branch house.



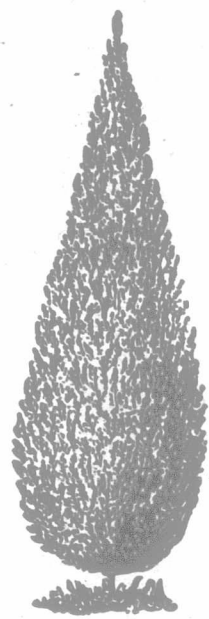
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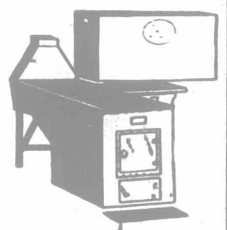
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The Farmer's Advocate and Home Magazine

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1875

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Vol. XLVIII.

LONDON, ONTARIO, MARCH 20, 1912.

No. 1169

EDITORIAL.

In the course of any travelling you have done, were you ever attracted to a community without trees? Does it appeal as a district in which you would like to buy a farm? It never does to us.

The day is coming, observed a Minister at a recent dairy meeting, when the land along the front of a farmer's property will be counted as valuable as any part of his farm. The time will be when every farm will be made as attractive as possible, especially along the roadside. Well said. May it come soon.

Growers of mangels generally are of the opinion that the Globe or Intermediate varieties have a higher feeding value than the Gate Post or Long varieties. Experiments outlined on another page and carried on by Frank T. Shutt, Dominion Chemist, have proven the opposite to be the case, the Gate Post variety proving more valuable than the Intermediate type.

One hundred and five questions were answered in "The Farmer's Advocate" of March 13th, exclusive of those considered in the Home Magazine. The number answered in this issue will be limited only by the space available. Some papers have to invent inquiries to maintain a show of interest in their correspondence columns. We can scarcely publish all we receive. Subscribers are asked not to submit unnecessary ones.

That sentiment will make but little appeal unless the farmer is able first of all to secure a living, is Prof. J. B. Reynolds' idea, as expressed in a recent address. As a means of making it profitable and otherwise attractive to people of education and calibre, he would intellectualize it by study of its business, economic and scientific problems. When such a study can be turned to profitable account, as for example in the improvement of dairy herds, farming is bound to appeal to men of brains.

The remarkable purity of the Red Fife wheat being grown by members of the Canadian Seed Growers' Association, in Manitoba, was referred to at the recent annual convention by the secretary, who inspected the crops last summer. Other members had a large percentage of bearded heads in their Red Fife, which shows that the occurrence of these impurities is due largely to poor stock, or lack of proper selection. Bearded heads are very common in ordinary Red Fife and other bald varieties, but proper selection seems to be effective in eliminating them.

That the village, town and city environment of our Secondary schools helps to turn the ambition of the pupils away from the farm is the disturbing fact being borne home to the mind of many a rural father who has seen the son that has always taken an interest in the farm, and whom he had counted upon to help him run it, drifting off instead to a course in civil engineering, law, or perhaps a clerkship. Facts are rude awakeners, but they are effective. Perhaps before long we may realize that a consolidated rural, graded school, carrying the pupils two or three classes beyond the High School Entrance would be a first-class investment even if it did raise the tax-rate a mill or two.

Time for Tree Planting.

"Wise men were they who set hard maples along the boundary lines of their farms in early days. They now have avenues to be proud of. And they have also a source of revenue for these low-branched, isolated trees give abundant flow of sap in the early spring. Beautiful for shade and ornament, the Acer saccharum yields sugar, lumber and fuel of high quality, and finally its ashes make the best of fertilizer."—Rogers Tree Book.

Comfort, appearance and self-interest, all unite to impel the owner of ground, small or large in extent, to plant trees. To "Farmer's Advocate" readers, it surely is not necessary to reiterate the draw-backs of a tree-denuded farm or an unsheltered homestead. Long before anyone dreamed that the onslaught on standing timber would ever have reached its present stage, some of our forefathers in Eastern Canada seem to have been wiser, or at all events they took the time to transplant to the road sides, line fences, and about the homesteads rows of saplings, from the timber lots, which in those days were not laid waste and bare every summer as they are now, with herds of hungry cattle. Do not these farms stand out as pleasing landmarks—places of beauty and comfort, as homes both in summer and winter because of the shade and shelter with which they are invested? They are more highly valued by their present owners, and as a real estate proposition are worth more in actual cash. Such homesteads are an asset of which any country has a right to be proud, and to the general duplication of which every reasonable encouragement should be afforded.

The farmer who plants trees leaves a valuable heritage to his sons, and does something that will help to keep the family on the farm.

Our readers are now planning the seeding operations and farm improvements of another season. We are well aware how seriously handicapped many are because the farms are undermanned, and efficient help is difficult to secure. Still, it will pay, and pay well even in the life time of any man to invest a little time and money in tree planting. There are two directions which the work may take, one for the beautification and shelter of the homestead, garden and orchard, the farm frontage and exposed farm lines or lanes. In case of lines of trees along the south side of fields under cultivation, the planting should be less close together or the crops will suffer. For hedges and shelter, speedy and desirable results will be secured with Norway Spruce or Cedar, which can be secured readily at reasonable outlay in most sections. The main reliance will be the maples and elms and some of the nut trees. In most sections the saplings are obtainable from existing wood lots, which are being preserved. Make a start this season even with a few trees, where they are most needed. The outlay and time will be trifling compared with the results and will ensure just as certain and satisfactory returns as any spring work.

The other class of planting to be considered is for the improvement of wood lots, and reforestation of swamps, or other waste places, such as rough hillsides, or portions of good tillable land shut off from other portions of the land by streams, ponds or ravines. For this work, in the Province of Ontario, the Department of Agriculture has developed a system of co-operation for the assistance of farmers directed by Prof. E. J. Zavitz, Provincial Forester, at the Ontario Agricultural

College, Guelph. The seedling trees grown at the plantations in Norfolk County are furnished free, but the person receiving the material for planting pays the express charges to his nearest office. Directions are also given through one of the officers of the Department as to preparation of soils, varieties to plant, manner of planting and subsequent care. The trees for distribution that are "most satisfactory on poor waste land, are the evergreens, such as white pine, Scotch pine and white cedar. The nut trees for distribution requiring a deep, porous soil, are black walnut, butternut and chestnut. In addition to these are hardwoods, black locust, white ash, sugar, soft or white maple and elm. Norway spruce is not sent out now as it has been proven that the work in experimental waste land planting and plantation work in general can be carried on just as well with the others named. Persons receiving these seedlings are of course in honor bound not to resell to neighbors but to use strictly for their own premises. The work is now no experiment for the good results secured have amply justified the inauguration of the policy. The distribution will be continued this season and readers desirous of taking advantage thereof should at once put themselves in communication with the Provincial Forester, at Guelph. The time is opportune. Make the season of 1913 memorable on your farm by planting trees.

"For now the leaves are moving;
Leaf buds on every bough
Are reaching sunward, proving
How strong the spring is now;
In every mid-rib's veining,
In every footstalk straining
Sunwards, new life is reigning,
For spring is in the land."

Creameries and Cheese Factories as Local Industries.

In these days of bonused business, it is worth while emphasizing the importance of local butter and cheese plants as local industries. Within the past month the writer has visited three creameries, Winchelsea, Kerrwood, and Strathroy, the former two each with an output well over a hundred-thousand dollars a year. The output of the Kerrwood factory includes a little cheese, but that point is immaterial in this connection. The Winchelsea creamery has been worked up to its present proportions from almost nothing within the past eight years, while the Kerrwood business is a development of the past twelve. As the founder of the latter remarked at its recent annual meeting, many towns fall over themselves to attract industries of less importance and with smaller turnover, offering free site, free water, tax exemption, and even cash bonus. We do not believe in the principle of these bonuses at all, but if manufacturing industries are so highly thought of that bonuses worth ten or twenty thousand dollars are eagerly handed out to draw them, surely we should prize highly the local dairy plants, which are, from every point of view, the best kind of local manufacturing industries, not only disbursing, as these two creameries do, twelve and fourteen thousand dollars a year for labor, fuel, supplies, and so on, but, at the same time, increasing the purchasing power of the surrounding farm community, thus conferring a double benefit upon the town or village within which situated. If further argument is needed, talk to the branch-bank managers, any of whom is keen to secure the

The Farmer's Advocate

AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL
IN THE DOMINION.

PUBLISHED WEEKLY BY
THE WILLIAM WELD COMPANY (LIMITED).

JOHN WELD, MANAGER.

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

1. **THE FARMER'S ADVOCATE AND HOME MAGAZINE** is published every Thursday. It is impartial and independent of all cliques and parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.
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13. **ALL COMMUNICATIONS** in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.

Address—**THE FARMER'S ADVOCATE, or
THE WILLIAM WELD COMPANY (LIMITED),
LONDON, CANADA.**

local creamery or cheese-factory account. From every standpoint the local butter or cheese plant is to be encouraged and patronized. So much for it as a local industry.

Support the Local Factory.

From the farmer's standpoint there are even stronger arguments for supporting the local plants than those enumerated in the foregoing article. So long as a cheese factory or creamery is running in one's midst, he is guaranteed a steady remunerative market for his milk or cream. The cash returns may not always seem alluring when compared with prices offered by condenseries or city purveyors, but when by-products are considered, skim-milk at 25 cents per cwt., and whey at twelve cents, the returns are usually pretty favorable. The milk or cream is taken from one's door without the expense of hauling to town or railway station. Payment is, in most cases, certain, and the care of the milk is not so exacting as for retail trade. Of late years many a local cheese or butter-making business has been cut into and jeopardized by the encroachment of large city supply houses and centralized creameries, which reach out a hundred miles or so, in some cases nearly two hundred, for milk and cream, especially cream. The trouble is they seldom or never take the whole output of a district, but cut into scores of the local plants, taking out the milk of enough patrons to spoil the local business, increasing the cost of manufacture, reducing the maker's wages or profit, and threatening the stability of his business, so that he is afraid to make permanent improvements. This hurts the factory, and threatens the interest of patrons as well as makers.

What would happen if these local plants had to be shut up? Producers would be simply at the mercy of big corporations a hundred miles away. When they wanted milk there would be a market for it—at their own prices. When they had enough the local producer could make butter from his surplus milk at home, or feed it to calves. Those who have studied the centralized creamery business in the United States say it has

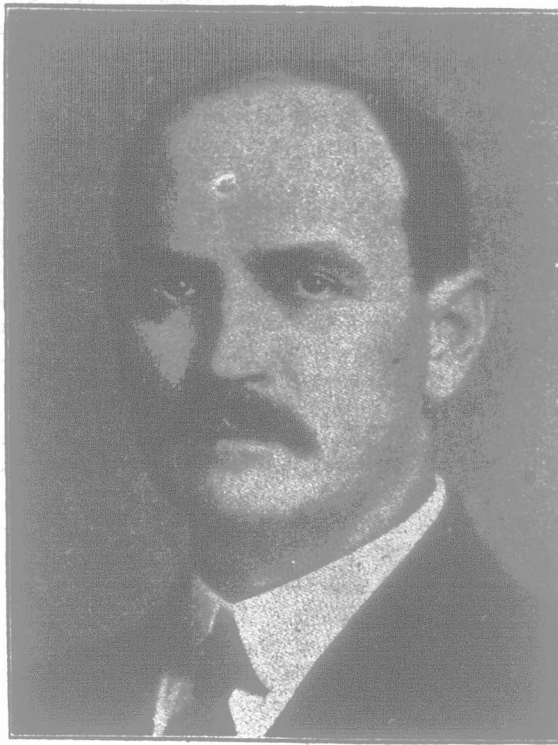
worked out anything but well for producers there. The agents come into a section offering big prices for cream, break up the established local business, and then have producers at their cold mercy. In Canada we hope the centralized-creamery business may never develop along such unscrupulous lines, but even though honorably conducted, we do not believe it has anything to commend it to producers who already have access to a good local cheese or butter plant. Where there is not a good solid local plant the case is different. In such cases the centralizer's agent may be welcomed. During the past year or two, (thanks to the high price of butter) small local creameries have been established at several points from which the big centralized creameries had been drawing their supply, thus accounting for the distance to which the latter have been forced to send canvassers. If it is good business to establish a creamery near the centralized plant, is it not better business to keep up established ones a hundred or two hundred miles away?

Patronize your own factory, support local industry, and protect your own future interests.

At the Helm of U. S. Agriculture.

Canadians are always more or less interested in American politics, and particularly as they apply to agriculture. The work of the agricultural secretary at Washington is always watched with interest by the leading agriculturists of this country, and consequently, at the present time, this interest centers around David Franklin Houston, recently appointed to this position in the Wilson cabinet.

The appointee is a college man of wide experience. Dr. Houston was born in Monroe, Union County, North Carolina, on February 17th, 1866, so is just in the prime of life, being forty-seven years of age. He received his early education in the public schools and South Carolina College, and received the degree of A. M. from Harvard University in 1892, and LL. D.



David F. Houston.

The new United States Secretary of Agriculture.

from University of Wisconsin in 1906. He was a tutor in ancient languages in South Carolina College from 1887 to 1888, and from 1888 to 1891 was superintendent of city schools in Spartanburg, S. C. From 1891 to 1894 he spent in the study of political science at Harvard, was on the staff of the latter university as associate professor and professor of political science for several years. From 1889 to 1902 he was Dean of the Faculty of the University of Texas, and from 1902 to 1905 president of the Agricultural and Mechanical College of the latter State, which he relinquished to become president of the institution, where he remained until 1908. From September, 1908, until his present appointment he has been Chancellor of Washington University, St. Louis, Mo. His wide knowledge of advanced education should stand him in good stead in his new office. He has a firm grip of political economy, so essential to the successful administration of the portfolio assigned to him.

Dr. Houston is a member of the American Economic Association, Fellow of Texas State

Historical Society, and the author of "A Critical Study of Nullification in South Carolina." This book deals with the refusal, in 1832, of the state named to allow certain revenue laws of the United States deemed unconstitutional to be executed within its borders.

Dr. Houston is an energetic man, well equipped to take up the work so ably carried on by his predecessor James Wilson.

Nature's Diary.

By A. B. Klugh, M. A.

It is reported that a shipment of nearly six hundred English birds is on its way from London to Victoria, B. C., where the birds are to be liberated. The shipment consists of thirty-six pairs of goldfinches, thirty-six pairs of linnets, thirty-six pairs of robins, thirty-six pairs of blue tits, and seventy-four pairs of skylarks.

It may appear at first sight that this introduction of foreign birds, some of them noted songsters, is very desirable, but it is, in reality, a highly dangerous experiment. Because a bird or mammal is beneficial in its native land, it is no guarantee that it will prove so in any other country into which it may be introduced. And surely the results of the introduction of foreign birds and mammals, in various parts of the world, have not been so happy as to warrant a continuation of the practice.

The house sparrow was first introduced in 1850 at Brooklyn, N. Y., in the belief that it would prove a valuable insect-eating species. This lot did not thrive, and in 1852 a second importation was made. In 1854 and 1858 the house sparrow was introduced at Portland, Me., and in 1858 at Peacedale, Rhode Island. During the next ten years it was introduced into eight other cities in the United States. By 1870 it had become established as far south as Columbia, South Carolina, and Louisville, Kentucky, as far west as St. Louis, Mo., and Davenport, Iowa, and as far north as Montreal. Between 1870 and 1880 it extended its range by nearly 16,000 square miles, and during the next five years it spread over more than 500,000 square miles. In 1886 it had become established in thirty-five states and five territories, besides occupying 148,000 square miles in Canada.

Now it has spread the length and breadth of the cultivated portions of the continent.

As soon as the house sparrow was firmly established in North America it was found that the warnings uttered by the ornithologists, at the time of its introduction, were only too true, and that the farmers had been saddled with a grain-eating pest and the city people with a filthy nuisance. Then it was resolved that "the sparrow must go," and bounties were offered in many places, nests and eggs were destroyed, firearms and poison were employed against it—all in vain—for it has not "gone", except to occupy new territory.

The common European rabbit was introduced into Australia in 1864 for purposes of sport. So rapidly did they multiply that in 1879 legislative action for their destruction was begun, and since then millions of dollars have been spent for bounties, poisons and other means of destruction, but nothing has been found which will exterminate the pest.

The mongoose of India, a mammal well-known as a destroyer of rats and snakes was introduced into Jamaica in 1872 for the purpose of ridding the cane-fields of rats. They increased with great rapidity, and at first a great decrease in the number of rats resulted. But the mongoose continued to increase, it destroyed young pigs, kids, and lambs, also poultry, game birds, snakes, and all ground-nesting birds. By 1890 the mongoose was considered the worst pest of the island, and the destruction of insectivorous birds, snakes, and lizards, which it effected, caused a great increase in injurious insects.

The European starling was introduced into New Zealand in 1867, and by 1870 had become very numerous. In spite of its preference for insects manifested in its native land, in its new home it has adopted a fruit diet to such an extent as to have become a great pest.

The skylark, the linnnet and the blackbird, all considered beneficial species in England, have been introduced into New Zealand where they have developed food habits different from those manifested in their old home. The linnnet has proved destructive to grain, and the blackbird is proving to be a pest to the fruit growers.

With these examples before us, does it seem wise for us to allow the introduction into Canada of foreign birds?

In the United States a law has been passed under which any person wishing to import live wild birds must first obtain authorization from the department of agriculture.

How is it that so many introduced species become pests? Because in any country the native species have, in the course of centuries, settled into an equilibrium, which we may term the "balance of nature," and every species has cer-

tain checks upon its too rapid increase. But when a species is introduced into a new country these checks are often lacking, and the country increases until it becomes a pest. We have enough pests which are introduced inadvertently without going out of our way to introduce species which may, when it is too late to exterminate them, prove to be injurious. We would suggest that this importation of birds be shipped back whence they came, or else kept in large roomy aviaries in the parks of Vancouver and Victoria.

"The Rural Problem."

Four days of the first week in March were devoted by I. B. Whale, District Representative, in Middlesex Co., Ontario, to a series of farmers' meetings in Glencoe. These meetings, while not largely attended, were one of the bright spots in the county work during this season. The average attendance, up to the last evening of the meetings, was about forty, and, judging by the questions asked, interest was keen and much valuable information imparted. Mr. Whale discussed weeds, seed selection and soil cultivation. D. Johnson, of Forest, gave a demonstration in box-packing apples, and W. F. Kydd, of Simcoe, gave a very instructive address on the care of the orchard. The meetings came to a close Friday evening with a well filled hall to listen to an able address by Prof. J. B. Reynolds, of the O. A. C., on "The Rural Problem," and to Dr. H. G. Reed, V. S., of Georgetown, on horse breeding and stabling of stock.

The Rural Problem has been discussed from almost every platform and through the columns of almost every live journal in Ontario, but few, if any, of the speakers or writers making this their theme, have so ably stated the real problem and what is needed to remedy the present situation as did Prof. Reynolds at this meeting.

The problem, as so often stated, is the gradual depopulation of the country—the increasing moving away from the Ontario farms to the West and to the cities—the abandoning of farm life by boys and girls who were born on the farm. This is the problem. This is responsible for the increased cost of living, which is directly a result of supply and demand. (Decreasing the number of producers means decreasing the supply, and increasing city population means increasing the demand.)

It is a matter of the attractiveness of farming. If agriculture is an attractive occupation, rural population should not be depleted. Because a boy or girl is born on a farm is no reason why he or she should be compelled to remain there. In a democratic country like Canada, every child should have the liberty of choosing his or her own occupation. We are not born to any particular occupation in this country.

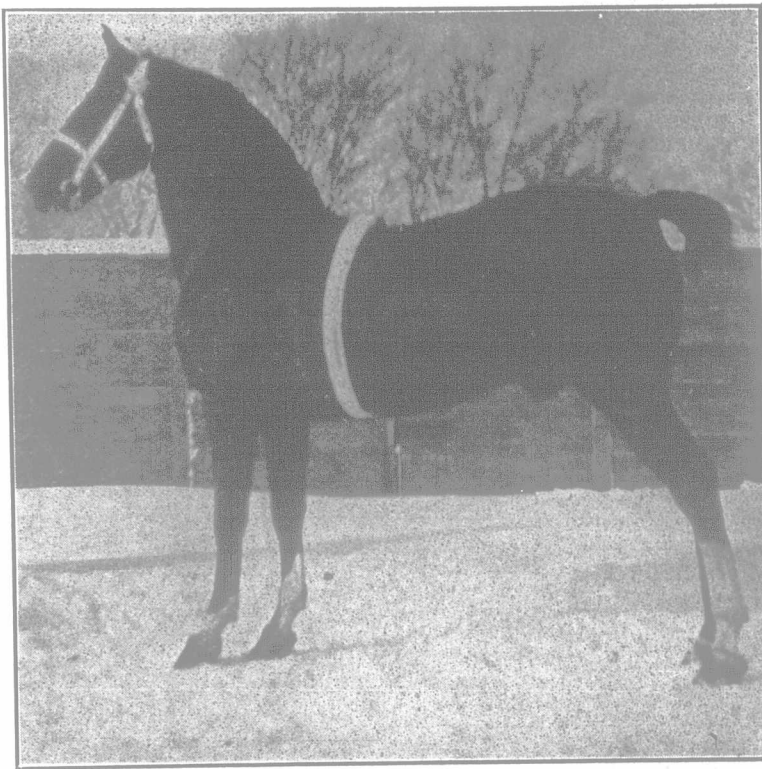
Professor Reynolds was not in sympathy with the cry that we are educating away from the farm. He held, however, that advanced education unfits people for labor, believing that "an educated farmer cannot be a laborer." The great need is to remedy the conditions of farming. The cry against the Collegiate-institute education he believed to be unfounded, and stated—"A university course is almost as likely to turn a young man's attention toward farming as a four-years' course at the agricultural college." Present-day agricultural education fits young men for other pursuits, and a large percentage of the graduates (four-year men) do not go into farming, because their education opens their eyes to the possibilities of other occupations and to the disabilities of farming; but Prof. Reynolds stated that there is no better education to fit the young man for the business of life than an agricultural college education. An education to be of real value should fit a man for life. The blame is not in education, but in the conditions of farming.

"What makes farm life attractive?" asked Professor Reynolds. All the talk of the beauties of nature and the charm of farm life he called "poppycock." People cannot live on it, and until our living is certain there is no use of talking "fresh air," "nature," and "independence." These are factors—accessories, but not the life.

Farming is unattractive because of the hard labor involved, but hard work should not drive people away from the farm. "If a man is looking for a soft job let him get away from the farm." Such a man is no use anywhere, and this country has no place for him. It was the men who were not afraid of work that made this country, and are still making it. Right here is where Prof. Reynolds struck the keynote of his address, "Too often on the farm hard labor is not associated with mental interest. The man is merely a laborer and not enough of a business man and not enough of a scientist, and the sooner farmers learn that agriculture is a science the sooner they elevate their occupation to a business. The one touch to redeem farming is to make it an intelligent occupation."

Another necessary factor is that farming must be made relatively profitable. One can never be a millionaire farming, but money ought not to be the chief end of our lives. A few sacrifice the prospect of being rich, provided that in their occupation they have a clear conscience, and are making a fair living and doing good to citizenship. The idea of service is the one thing which makes business worth while. Farm produce is wealth in the divinest form in which wealth is produced, but the business of farming must be made reasonably profitable.

To illustrate the significance of work on the farm which will appeal to the intellect, Prof. Reynolds produced the figures obtained through the keeping of milk records the past year on his own farm. The proceeds from cow No. 1 for 10 months were \$122.71; the cost of feed, \$49.00; net profit, \$73.71. Cow No. 2, milked 1 year; proceeds, \$127.90; feed, \$52.90; profit, \$75. Cow No. 3, milked 1 year; proceeds, \$125.82; feed, \$51.70; profit, \$74.12. Cow No. 4, milked 10 months; proceeds, \$85.79; feed, \$47.50; profit, \$38.29. In this group it will be noticed that while the cost of feed for cow No. 4 was nearly as much as that for each of the others the profits were only about half as much. Cow No. 5, milked 3 months (winter); proceeds, \$40.51; feed, \$18.71; profit, \$21.80. Cow No. 6, milked 3 months (winter); proceeds, \$25.32;



Christopher North.

First-prize Hackney stallion under 15.2, and champion of the breed, at the Eastern Ontario Live-stock and Poultry Show, Ottawa, 1913. Exhibited by Mount Victoria Stock Farm, Hudson Heights, Que.

feed, \$16.20; profits, \$9.12. Cow No. 7, milked 3 months (winter); proceeds, \$19.11; feed, \$16.00; profit, \$3.11; and cow No. 8, milked 3 months (winter); proceeds, \$57.78; feed, \$24.00; profit, \$33.78. Three of the cows in the first group more than paid for themselves in the first milking period, and this last cow, which cost \$72.00, is likely to pay for herself in eight months of milking. Note that in the last group it would take eleven cows like No. 7 to yield a profit equal to that of No. 8. This should appeal to the intellect, should encourage the adoption of business principles. Even the foreman in charge of these cows became intensely interested, seeking to ascertain the cause of every fluctuation in the milk flow. Interest in one branch leads to interest in others.

The rural problem is a practical matter. We must engage our minds. Intellectual emptiness in the business of a good many farms is responsible for so many abandoned farms, concluded Prof. Reynolds, and this also he believed was the cause of farmers having had for so long to bear the burdens of the world. "Why should the farmer not get what is coming to him?" There is relatively too much time spent on production, ignoring the marketing end of the business. The marketing problem will never be solved until we get some measure of co-operation in both production and marketing. Country boys and girls are going and will continue to go to the city, and some city boys and girls are beginning to go to the country. This latter is a good feature, for the city boy is instilling a certain amount of business training into the country, is bringing city conveniences to the country home. In time the flow from the country to the city and from the city to the country will, to some extent, balance. In the meantime use the intellect and make farming a business.

President Wilson's Program.

In the inaugural address of President Woodrow Wilson, at Washington, he gives the following remarkable opinions of the duty of the new American Government in relation to the people. Of things that ought to be altered he cites:—"A tariff which cuts us off from our proper part in the commerce of the world, violates the just principles of taxation, and makes the Government a facile instrument in the hands of private interests; a banking and currency system based upon the necessity of the Government to sell its bonds fifty years ago and perfectly adapted to concentrating cash and restricting credits; an industrial system which, taken on all its sides, financial as well as administrative, holds capital in leading strings, restricts the liberties and limits the opportunities of labor and exploits without renewing or conserving the natural resources of the country; a body of agricultural activities never yet given the efficiency of great business undertakings or served as it should be through the instrumentality of science taken directly to the farm, or afforded the facilities of credit best suited to its practical needs; watercourses undeveloped, waste places unreclaimed, forests untended, fast disappearing without plan or prospect of renewal, unregarded waste heaps at every mine.

"Nor have we studied and perfected the means by which Government may be put at the service of humanity, in safeguarding the health of the nation, the health of its men and its women and its children, as well as their rights in the struggle for existence. This is no sentimental duty. The firm basis of Government is justice, not pity. Society must see to it that it does not itself crush or weaken or damage its own constituent parts. The first duty of law is to keep sound the society it serves.

"This is not a day of triumph; it is a day of dedication. Here muster not the forces of party, but the forces of humanity. Men's hearts wait upon us; men's lives hang in the balance; men's hopes call upon us to say what we will do. Who shall live up to the great trust? Who dares fail to try? I summon all honest men, all patriotic, all forward-looking men, to my side. God helping me, I will not fail them, if they will but counsel and sustain me!"

A Canadian in Wilson Cabinet.

The men of the Maritime Provinces of Canada have ever been to the fore in public affairs. One of them appears in the new cabinet of President Wilson, at Washington, as Secretary of the Interior. He is Franklin Knight Lane, who was born in Prince Edward Island in 1864. He was educated in California, and practiced law there. He was a candidate for Governor on the Democratic ticket in that State and received the vote of his party for Senator. He has for years been a member of the Interstate Commerce Commission and represents the United States on the International Railroad Commission.

HORSES.

Among a long list of "rules" laid down by the Boston Work-horse Parade Association, the following are a few:—

A heavy-draft horse should never be driven faster than a walk, with or without a load.

Teach your horses to go into the collar gradually. When a load is to be started, speak to the horses and take a firm hold of the reins so that they will arch their necks, keep their legs under them and step on their toes, a loose rein means sprawling and slipping, often with one horse ahead of the other.

Avoid these harness faults,—bridle too long or too short; blinders pressing on the eye or flapping; throat-latch too tight; collar too tight or too loose; shaft-girth too loose; traces too long; breeching too low down or too loose; inside reins too long in driving a team.

Drive your horse all the time, feel his mouth gently but never jerk the reins.

Are Blinders Necessary?

Editor "The Farmer's Advocate":

At least two-thirds of the horses we meet on the public highway have their bridles decorated with blinders. I use the word decorated advisedly, for it is somewhat difficult to understand how the custom of covering the horses' eyes should have become so general when there is no good reason for the practice. It seems to me, and I am sure if the greater number of your readers will look at it as I do that they will agree that, except in cases of defective sight, the blinder is not only useless but positively objectionable, rendering its wearer a prey to starts and fears to which he would be a stranger if he could use his eyes. A horse, it is claimed by renowned horsemen and can be proved by careful observation, does not see directly ahead of him, but his line of vision is obliquely outward and forward so that the blinder placed, as it is, parallel to the side of the animal's face, is bound to interfere with a great portion of the field of vision. We find horses that are ridden without blinkers wearing them when put in harness, and the reason given reflects little credit on the owners' common sense or eye for the beautiful. Nine out of ten will quote "fashion" as the reason for wearing them. Because it is the "fashion" the horse is subjected to what must be torture to him, so that he may not look undressed beside his fellows. If a few sensible people would inaugurate a fashion of no blinders, the tenth man would discover that a horse's appearance is greatly improved by his beautiful eyes being visible.

Some who would really like to discontinue blinkers are withheld by the idea, that when a horse has been used to them it is impossible to drive him without them. Those, however, who have made the experiment, myself among the number, do not find this to be the case. With a little patience and increasing common sense in explaining things to the horse, he soon accustoms himself to the change. Others imagine that, though a single horse may go all right without blinkers, they are necessary with a team, but this also has no foundation.

People who value their own safety will be wise to discontinue blinkers, for a horse who can see shies less than one who is half blind, and in any difficulty or accident is much quieter and more reasonable than one who is terrified by not knowing what is going on around him. If people could only realize that the horse, though nervous, is also a highly intelligent animal, they would not subject him to treatment which would confuse and frighten themselves and the horse, and accidents would be very much less frequent.

Those persons who cover up their horses' eyes seem to forget that the animals have very sensitive ears, which inform their owners of the approach of something (the half blind horse can not tell what). If he could see he would not be frightened, but only hearing terrifies him. Nor can he, owing to the blinkers, see that the terror is no longer pursuing him, and as he bolts madly along he imagines it is still coming after him. Even if the object being in front has been seen he is still unable to tell when he has passed it, and continues to fear it when he has left it far behind; while the frequently senseless conduct of his driver, in whipping him for being frightened, only serves to convince him that the thing he has seen or heard has hurt him. The wonder is that horse accidents are not more numerous than they are, considering the irrational way in which these long suffering animals are harnessed and driven.

Carleton Co., Ont.

J. S.

[Note.—Contrary to the belief that a horse accustomed to blinders will give trouble if driven without, he will not usually do so, but a horse accustomed to an open bridle and suddenly compelled to wear blinders will give all kinds of trouble. The writer has in mind a reliable but spirited heavy-draft team which had been driven for several years in open bridles, and which, when a new harness was bought, were forced to wear blinders, and the consequence was a serious runaway the first time hitched in the new harness, all caused by a covered buggy approaching the team from behind and passing at a rapid rate. These horses were thoroughly accustomed to covered buggies, but upon not being able to see the approaching object they got excited, and although previously never known to do so commenced kicking and running away at great speed. One of the horses fell in the runaway, and the driver was thus able to get them stopped. Injuries were not serious, but had the horse not fallen could not have proved otherwise as the team was a valuable one and the waggon carried fourteen pigs, and besides all this the driver's life was in great danger. This is only one of many such incidents which could be noted. Discard the blinders. Break the colts to the open bridle, and give them an opportunity to see for themselves everything before, by their side, and behind.—Editor.]

Must Get Rid of "Scrubs."

Editor "The Farmer's Advocate":

I have read "The Farmer's Advocate" with great interest, and I am of the opinion that there is no better agricultural paper offered to the people. Notwithstanding repeated advice of experienced horsemen it is difficult to persuade the average farmer of the great necessity of mating the brood mares with sound sires. But to meet those requirements is rather a serious matter in this part of the country, when we have so many inferior horses standing for service at the paltry service fee of seven and eight dollars for living colts. This kind of scrubs is ruining the country. Importers of high-class horses cannot compete with these scrub prices, and until something is done to reduce the scrub, little can be accomplished regarding the improvement of stock. Perhaps the government legislation will, in time, weed out the unsound stallions, but time is too valuable to wait. Why not follow up the Old Country method of having a premium horse of highest quality, pedigree and best of type and conformation? But to secure such a horse the service fee would require to be from twenty to thirty dollars per colt, but the extra expense would be far more than made up in the increased price of the offspring. I have no hesitation in saying that there is not forty per cent. of the agricultural horses sound around this part of the country. Breeders ought to exercise a little more care in choosing what is to become the sire of their colts. I would advise breeders to pay more attention to the pedigrees of sires, for good breeding always tells in all kinds of stock. Let us remember the fact that the colt inherits from the sire, the grand-sire and the great-grand-sire. No doubt it is difficult for farmers in this country to fully understand the pedigrees of imported horses containing the blue blood of Scotland. Such horses as trace directly to Hiawatha, Baron's Pride, Prince Sturdy, Sir Hugo, Baron of Buchlyvie, Everlasting, Oyama, Silver Cup, Memento, Silver Crest, Acme, Sir Everard, Orlando, Hiawatha Godolphin, Radium, Royal Fashion, King of Kyle, Royal Edward, Pride of Blacon, Cimaron, and Up-to-Time, and all those passing through such sires as Prince of Wales, Darnley and MacGregor, are more likely to please every lover of a good Clydesdale. Now breeders patronize the horse with substance, size and quality regardless of service fees, and it will be interesting to watch the yearly improvement of your stock. I may state that I have handled horses all through the main parts of Scotland and England, and I think Canada ought to be the main center of the horse industry, only a little more judgment on the part of the mare owners, and the undersized scrub stallions will soon be a thing of the past.

Huron Co., Ont.

MATTHEW WALKER.

A Practical Horseman's Advice.

The following are a few practical points from an address delivered by Dr. H. G. Reed, V. S., of Georgetown, Ont., at a farmers' meeting recently held at Glencoe, Ont.:

The weakness in stock breeding is carelessness, not ignorance.

Do not go to extremes, always breed the mares to the most ideal horse available, i. e. do not attempt to get the best colt by breeding a mare short in pasterns to a stallion extremely long in the pastern, but use the one with the ideal length and obliquity of pastern.

If your neighbor's stallion is a scrub do not use him even though his owner may be a "nice" fellow. "No man can afford to take \$50 out of his own pocket to put \$10 in that of his neighbor."

"The foal at its birth is in just as good condition as his dam." Condition here does not refer to flesh. An excessively fat mare is not in good condition. She is "soft." Her muscular, respiratory, circulatory and nervous systems are not in as good "condition" as if she had been regularly exercised and the excess of fat not allowed to accumulate. A mare is more likely to bring forth a strong healthy foal if she herself is a little thin and has done daily duty in the harness than if she has been highly fed and exercised but little.

Give the brood mares the farm work in winter, providing this work is not over-strenuous and let the geldings stand idle. Idleness will injure them less than the mares.

When the colt arrives, avoid handling the navel. Have an antiseptic handy, as a ten per cent solution of carbolic acid and apply this to the umbilical cord as soon as the colt is foaled, and once or twice daily until the cord dries away and is entirely healed over. Apply with a clean sterilized cloth and keep the hands off the cord.

Prepare the box-stall for the mare about to foal. Clean the walls. Whitewash them and disinfect with a strong disinfectant, as carbolic acid solution. Keep the box well supplied with clean straw.

The man who wishes to make a success of draft-horse breeding must be a liberal feeder. An adult drafter should weigh from 1500 to 1600 lbs. at least and should have attained half that weight at a year old. Consequently colts must be well fed.

Horses in Canada spend too much time shut up in stables.

The best winter feeds—Clover hay, alfalfa hay, (each well cured,) oats, bran and roots.

The average farmer feeds more hay than necessary in winter. No animal should have hay before him at all times. Many Ontario farmers could profitably reduce the hay rations of their idle horses by one-half.

Overfeeding on hay is a predisposing cause of heaves.

Give all the hay the horse will clean up at the night feed, but give only a small quantity in the morning and at noon, and if he be a driving horse feed only a grain feed at midday and hay morning and night.

A careful farmer can feed good silage to a horse. (Note the words "careful" and "good.")

Where everything is normal whole oats are preferable to rolled oats, but for old horses, horses with ravenous appetites, and young horses teething rolled oats are often better.

Breed the draft horse and avoid crossing, and feed liberally.

It would have been an advantage to Ontario if nature had fixed the result of all crosses the same as that which produced the mule, unproductive.

Wants a Minimum Fee.

Editor "The Farmer's Advocate":

I have taken great pleasure in reading the articles in the "Farmers Advocate" re the Stallion Enrolment Act, and agree with Mr. McVitty, and others, that the act should be amended to provide for compulsory inspection, but cannot agree with Mr. McVitty that stallions should be graded, as I think each breeder should be his own judge of what horse suits his mare, and I don't think it is possible to get a committee of judges competent to judge and grade stallions, all over the country without being unjust to some owners. I think it would cause a lot of ill feeling among those owners whose stallions did not grade No. 1. A much better way in my opinion would be to set a minimum fee of say \$12 to be charged for service of all stallions of a draft breed. This would at least put owners of good horses on nearly equal ground with "scrub" owners. There are very few breeders that would use a scrub horse when they could use a good sound registered stallion for the same money, or very little more. If the elimination of the scrub stallion will cause a dearth of horses in some districts, I say let us have a dearth by all means.

For this district there travelled at one time four stallions, two being grade horses, run at a fee from \$2.50 to \$10. They left hundreds of colts, both being very sure horses, and they stood for many years in this district. The best colt of these grade horses that I ever saw or heard of, was sold this winter for \$235, and he was head and shoulders above the rest. The other two were registered Clydesdale stallions, one a very small horse, and the other, a very unsound horse, being so bad with the heaves, that his owners got him in a trade for a little pony worth about thirty or forty dollars. These two horses also left many colts, and nearly all good ones, many of their colts being prize winners at the local fairs. Now, these horses stood for about the same fee, at the same time, and got about the same class of mares as the grade horses, although I do not believe they got as many mares. Would we not have been better without the scrub stallions, even if we had to breed to grade No. III registered horses? I say sit on the scrubs, we will get them without breeding for them.

Let us hear what some other readers think about this minimum fee.

Bruce Co., Ont.

"INTERESTED."

It is reported that the Turkish Government has placed an order in the United States for 7000 cavalry horses, but the price offered \$140 is so low that it is also said that it will be impossible to fill the order.

Grain in the manger before the horse comes in looks bad. A tired horse should nibble hay for an hour or two before being given grain.

LIVE STOCK.

A Discussion of Live Stock Questions

Editor "The Farmer's Advocate.":

The letter of Mr. Peacock, in your issue of February 20th, is interesting to note. He is of the opinion that the small breeder is of insignificant value to any of our educative institutions, and more especially that part entailing his open competition in the show-ring. He feels with many other men who are breeding live-stock on a small scale, that the large breeders are monopolizing the shows for their own financial betterment. But is he correct in assuming such a conclusion? Is the large breeder gaining such a prominent hold on the best grades of live-stock that it is useless for a small breeder to gain admittance, or win? No. The small breeder has just as broad and fair a chance to gain distinction, and become enrolled as a first-class breeder now as any time in the history of stock breeding in Canada. The majority of our prominent breeders to-day, were competing for high honors against what appeared to them as an impossible task not many years ago. The large breeder was always prominent and they were accepting inferior honors, when they felt that something better should be forthcoming. But they were learning by open comparison of their stock with others, by the criticisms of the judge and by meeting and conversing with men who had adopted the best methods of caring for and feeding their stock. The path of the stockman who has risen from a common pursuit to one of a distinctive nature has never been one of smooth sailing and never will be. It is only the breeder who can face opposition and meet judgment with an impartial feeling that should enter the show-ring. If he is not receiving his dues, as he sees it, he should pay attention to the difference in type and evident care between his own and his opponents animals. He will, perhaps, find that, while his animals are of excellent development, that the market demands a different type, and this is the ruling feature in the judges mind. He will also profit by learning the feeding methods adopted by the successful men as we know that care and feeding plays an important part in an animal's development. This makes the general show a place of educative value instead of stern opposition and hard feeling, and the breeders will profit beyond the material value of show-yard awards.

The assertion "our large exhibitions would not be benefited if we should exhibit our stock," is in opposition to an exhibition policy. It is not necessary to benefit the large breeder other than by encouraging him to show his animals as examples of high-class breeding. He is the man who is taking advantage of his opportunities and developing them, and we should encourage him to show at all our exhibitions, even if he does not gain by it, the benefit will be noticeable and felt most by those who enter into competition.

The small fairs might be criticized for not offering premiums large enough to invite the large breeder to show. In this way the interest is kept down, and no benefit derived by the live-stock man. If substantial awards were offered, the object lesson in improved stock is more outstanding, and better animals are sought after by the breeders of that community. This same lesson will apply to other branches of agriculture. We know of fairs that were of passing interest until a method of drawing the prominent breeders was adopted, and the effort was noticeable in the interest taken by small breeders and others who sought education from the improved breeding methods exhibited in the animals shown. Further education could be gained from having the judge state the requirements of each class, followed by criticism of the animals entered and the reasons for placing. We often notice animals entered in a class for which they are not qualified, and unless the judge explains the breeder may not understand, and will put the blame to partiality or lack of judgement.

A National Dairy Show would be one of the greatest movements toward dairy education that might be adopted. The exhibit of dairy cattle would be of great aid in bringing the foremost breeders of the Dominion to a common gathering ground. It would do much to unify the type of each breed of dairy cattle, and when accompanied by other educative features as methods used, the general breeding of dairy cattle would be much improved.

The exhibit of dairy appliances would bring the dairyman in touch with modern methods of manufacturing and handling the products of dairying. By having the machines in operation the intending purchaser not only sees the test of one machine, but of machines in competition, and can choose the most efficient without further trouble or expense. Such an exhibition and demonstration could not be otherwise than of educative value to the dairymen, and through them to the development of the industry. It is "an adoption of business methods in a business

way in a business age," and the highest form of its adoption is none too good to be in keeping with our general agricultural development.

ONE INTERESTED.

[Note.—While on the matter of a National Dairy Show, why not advocate a national Show of all kinds of live-stock and farm products?—Editor.]

Barley for Pigs

A two months' feeding test has just been completed at the Brandon Manitoba Experimental Station, in which chopped barley was compared with shorts as a winter feed for young pigs. The pigs used were early fall pigs, and had received no milk nor any commercial substitute for it. Up to the start of the experiment they had been fed on shorts, barley and feed flour.

They were divided on December 14th into two lots as nearly even as possible; there were three Berkshires and one Yorkshire in each lot. They averaged slightly over 70 pounds each at the start. One lot received barley chop, and the other shorts; in addition both lots received a small quantity of feed flour and some mangels. The quantities fed daily at the start were: Barley or shorts, two and a quarter pounds per pig; feed flour, three-quarters pound per pig; mangels, two pounds per pig. These quantities were increased as the pigs grew. It was found that the pigs on the barley could use more feed, and they were consequently given a little heavier ration. The quantities in each case were kept to what pigs would clean up with relish. The grain feeds were purchased at the following rates: Barley, \$15.00 per ton; shorts, \$20.00 per ton; feed flour, \$28.00 per ton. The mangels were

The Ewe at Yeaning.

Although many of the ewes in the country have already produced their spring crop of lambs the bulk have yet to yearn, and a large proportion of these will give birth to their lambs between now and the time grass comes. Where the ewes lamb on grass, very little preparation is necessary, as no extra pens are required. The ewes will invariably seek a quiet secluded spot, away some distance from the remainder of the flock. But where the ewes lamb inside, preparations for the event should be made some time before lambs are expected, in order that everything is in readiness when the critical period comes. Every sheep pen should be divided by one or more partitions during lambing time, and behind these partitions a number of portable panels should be on hand to place around the ewe about to bring forth progeny, and thus give her the desired seclusion and exempt her from the curiosity of the remainder of the flock. A couple of these short panels hinged together, or even one placed across a corner of the pen answers very well. All ewes should have this consideration, and they, with their lambs, should be kept by themselves for a few days after lambing to avoid an undue amount of trouble with ewes disowning lambs.

The ewe should be in good condition at lambing time. That is she should be in good flesh, but not too fat, and should have had throughout the winter sufficient exercise to keep the body fit to stand the strain which she is called upon to bear. Many beginners with sheep make the serious mistake of feeding as scantily as possible until after the lambs arrive and then "stuffing." True the feed should be increased after lambing, but it never should be so scant as to allow the ewe to become weakened. Others wishing to be very attentive overdo it, by feeding too much, getting the sheep very fat, adding to lambing troubles, and very often large, weakly, flabby lambs result.

The shepherd must be very attentive during the lambing season. The greater portion of the ewes will go through parturition without help, but in a flock of any considerable size there are always enough which will require attention to, if such attention is not given, cause losses sufficient to take off much of the business. Then a large percentage of the lambs are benefited by a little attention at this time.

The signs of parturition are few but distinct. The ewe becomes uneasy, seeks seclusion, shows signs of pains by pawing, lying down and getting up frequently, soon commences to strain, and, as labor pains increase in frequency and intensity, she stretches on her side and remains there until the lamb is delivered. The normal presentation is head first, with the fore legs forward. The attendant should, in cases where the pains are of long duration, see that the presentation is normal. Hastiness in helping the ewe should be avoided, and undue tardiness is often dangerous. As before stated, where the lamb is coming right, the ewe will usually expel it all right, but she can often be saved considerable unnecessary, weakening pain, by the attendant assisting gently, especially where the lamb's head is very large. Do not interfere until the time when the obstruction, whatever it may be, arrives at the point where it causes the ewe to struggle with violence to deliver the foetus. Press back on the skin of the vulva, or pull forward and downward gently on the fore legs. Normal rear presentations are not uncommon, and in such cases, of course, the only thing to do is to assist the ewe to expel the lamb in this position. Where mal-presentation is met with, no matter what the form, the operator should seek first to straighten the foetus into a normal presentation, and then proceed to deliver it.

As soon as the lamb is born, place it where the ewe can lick it. This licking is very helpful in starting the circulation and warming up the lamb. Sometimes it is necessary to rub some of the mucous from the lamb on the ewe to start her licking. As soon as possible, get the lamb to



Stowan Clarion. One of the stock bulls in Mr. Duthie's Shorthorn herd in Scotland, and sire of many of his high-thorn calves.

grown on the farm, and were valued at \$3.00 per ton. The results follow:

	Lot 1	Lot 2
No. of pigs in lot.....	4	4
Weight at start of test Dec 14 292 lbs.	282	282
Weight at end of test Feb. 14 492	425	425
Gain in two months.....	200	143
Gain per pig per day.....	.81	.58
Total amount of barley fed... 708		
Total amount of shorts fed...		637 1/2
Total amount of feed flour fed 248 1/2		248 1/2
Total amount of mangels fed. 488 1/2		488 1/2
Total cost of feed.....\$9.52		\$10.58
Cost of feed per 100 lbs. gain in weight.....\$4.26		\$7.40

This is certainly a decided victory for barley. Of course, it would not always be possible to buy barley at three-quarters cent per pound, but even if it were the same price as the shorts, the results would still be decidedly in its favor. It is possible that the similarity between the shorts and the feed flour made the ration that contained both not so palatable and well balanced as the one that had barley and feed flour, and part of the failure of the shorts is due to that cause.

Pig Feeding.

Editor "The Farmer's Advocate.":

In the letter of Prof. G. E. Day, of the O. A. C., Guelph, I read that one of the greatest troubles in feeding hogs dry meal, is that some hogs take a mouthful of dry meal, back up, and scatter a great deal on the ground. This can, in most cases, be overcome by adding about a pint or so of whole dry peas to the meal. S. K.

suck. This is very important, and it is remarkable how soon after being born the lamb will take a meal. This strengthens him quickly, and usually nothing further is needed. Do not increase the ewe's feed for a few days after lambing, when, after the worst of the strain is over, she may safely be put on a maximum feed. If she shows signs of garget, feed carefully, give a dose of Epsom salts, bathe the udder well with warm water, rub it dry, and apply a dressing composed of lard and turpentine. Sometimes, where the lamb is very weak, or has been chilled, a teaspoonful of brandy and a rubbing beside a warm fire, will revive him. There are dozens of these little emergencies with which the shepherd must cope, but they are all more easily overcome as practice increases.

A Fine Beef Herd.

Every breed has its strong points and its devotees. As a "long-distance" milk producer, the Shorthorn of to-day must yield the palm to the special-purpose dairy breeds, but the Shorthorn has its place still. There is certainly a sense of satisfaction in entering a stable and finding a herd of big, strong, hearty, substantial cows, a bunch of well grown, thick-fleshed, two-year-old steers, another row of thriving yearlings, and a pen or two of ten-months skim-milk calves that would tip the beam somewhere around eight hundred pounds. Something of this sort was witnessed lately by a member of the "Farmer's Advocate" staff, in the herd of Geo. Andrews, a patron of the Winchelsea Creamery in Huron County. "This one has about got her growth" remarked the owner dryly, pointing to a massive, deep, thick-fleshed Shorthorn grade, that could easily be made to weigh 1700 pounds. This cow was not one of his best milkers, drying up too readily after going on winter feed, but she gives a good mess in summer, and we think Mr. Andrews said he had sold her calf as a two-year-old for Christmas beef for \$101. Anyway he had sold nine head of which seven were two-year-olds and two were yearlings for a total of \$837. We believe he also said that the two yearlings had brought \$85 apiece—not bad for baby-beef! He has some good milkers, and a very neat stable, sending a uniformly excellent quality of cream, according to the creameryman's word. This herd is headed by a full brother to the Cargill-bred bull recently illustrated in the "Farmers Advocate."

We might add that in this stable we saw a 7-h. p. gasoline engine grinding grain, pulping roots and pumping water all at the same time by means of a simple line shaft. These things are done with a weekly consumption of one gallon of gasoline.

Breaking Unmotherly Ewes.

Some novel means have been recommended from time to time to make ewes own lambs. What will work in one case sometimes fails in another case. Of course the old reliable method is to place the ewes in stanchions made of two eight or ten-inch boards, so that the ewe's head is held and that she cannot turn to smell the lambs when they suck, according to the motherly instinct. Sometimes this soon brings the ewe to the point of owning the lamb or lambs, but often it takes several days and occasionally weeks. The ewe usually frets and fights, and this, together with the enforced lack of exercise, pulls her down in condition, and her milk flow is also impaired to the detriment of the lamb's welfare. The ewe recognizes her lamb from the smell of the lamb at birth, or from that which comes when her milk has passed through the lamb's digestive tract.

Sometimes ewes which lose their lambs may be made to foster-mother other lambs, by skinning the dead lamb and fastening the skin on the living lamb for a few days.

Where other things fail with the ewe which persists in disowning her own progeny, try the dog. All dogs are not safe for this work, but if the dog is accustomed to driving or being around the sheep and they are accustomed to him, he will not be likely to injure them. Of course the attendant must watch proceedings, as it would be folly to ruin a good sheep or a good dog. Place the ewe and her lamb or lambs in a box stall by themselves, and take the dog in. Usually the ewe will object to the dog's presence, and will seek to shield the lambs. If so, this is all that is necessary. If she does not, set the dog on her gently. Do not allow or encourage him to bite her, and generally she will own the lambs immediately, and will seek to expel the dog from the stall. This is not an infallible cure, but where other means fail is well worth trying. The writer has had good success with it on two different occasions. It requires care, but when it works is a quick and efficient remedy.

In milder cases, especially with young ewes, very often all that is necessary is to place the ewe and her charge in a pen by themselves until she becomes acquainted with and interested in her offspring, and the trouble ceases.

Feeds Soaked Meal.

Editor "The Farmer's Advocate":

Having recently fed a bunch of eleven pigs, I will give you my methods of feeding. They got soaked shorts and what milk and buttermilk there was at hand or water until about four months old, when a little barley and corn were added to finish them. All was soaked a feed ahead. Eight of these pigs, when delivered at the station, were weighed, and averaged 232 pounds at six months and one day old. Two I kept for breeding, which, at the same age, weighed at home 236 pounds each, and the remaining one at seven months old, well fed, weighed 292 pounds (this was the best pig, fed a month longer for home use). I for one am very much in favor of soaked feed, not too sloppy and thin. I think it saves quite a little which would otherwise waste.

Last summer I had three pigs which were fed on dry chop, Manitoba frozen wheat, with lots of water and drink. Two of them became crippled, and I blamed feeding dry chop, as I think it caused constipation and indigestion which in turn was responsible for the crippling. Of course I think it depends a lot upon what kind of hogs you are feeding to get the best results. I fed pure-bred Yorkshires.

AVERAGE RESULTS FOR FOUR YEARS.

Inches between Plants	Seed per Acre		Heads per plant	Per Cent. of Heads per Acre	Height (ins.)	Per Cent. Lodged	Per Cent. Rust	Days to Mature	Pounds per bush.	Yield per Acre	
	lbs.	bush.								Straw (tons)	Grain (Bush.)
1	414.4	12.34	1.0	100	20.4	5.6	11.8	91	25.0	1.75	30.60
2	104.0	3.06	1.1	31	27.8	11.9	15.0	93	31.4	1.58	34.95
3	46.1	1.36	1.3	17	32.6	12.8	17.8	94	33.2	1.52	41.73
4	26.0	.76	2.0	13	33.1	29.9	20.9	95	31.5	1.29	38.99
6	11.6	.34	4.2	12	35.3	35.8	25.4	97	28.6	1.40	37.42
8	6.5	.19	6.5	11	34.9	34.7	27.7	99	26.4	1.20	31.77
12	2.9	.09	11.2	9	34.9	30.1	33.2	100	23.9	1.03	21.93

I noticed in a recent issue of "The Farmer's Advocate" a treatment for white scours in calves. I have had considerable experience in this matter, and I have not found anything better than a few feeds of new milk from any cow. We have one in our barn now that was scoured badly, but a few small feeds of new milk changed conditions of bowels altogether, and its bowels now are normal and the calf is doing well.

Bruce Co., Ont. G. D. S.
[Note.—Are you sure the scours to which you refer is "white scours"? It would appear from the cure that it is simply due to deranged digestion, caused by overfeeding on skim milk or something else.—Editor.]

THE FARM

Thickness of Seeding in Cereal Grains

An address by Prof. C. A. Zavitz, Ontario Agricultural College, before the Canadian Seed-growers' Convention, Ottawa, 1913.

The question of the amount of seed of the cereal grains to be sown for the best results, has been discussed many times and in many places. Experiments have also been conducted with the object of securing information on this problem in different countries, and yet we have reached no unanimity in regard to the matter. We find, for instance, in Canada, that the amount of oats which are sown per acre will vary from one to four bushels, and in Scotland the quantity frequently reaches six bushels of seed per acre. We find very strong advocates of using as small a quantity as one bushel of oats per acre, while others will argue as earnestly for the advisability of using as high as six bushels or more per acre. It is undoubtedly true that the amount of seed per acre which would give the highest results under certain circumstances, would not give the highest results under other conditions. There are many factors which exert an influence in determining the quantity of seed to use to give the best returns, each of these factors producing its own particular influence. The fertility of the soil, the state of cultivation, the moisture content of the soil, the variety of the crop, the method of seeding, the date of seeding, and many other factors, apparently exert their respective influences in regard to the amount of seed to be sown in order to secure the highest returns. If this be true, it can readily be seen that we cannot come to a definite conclusion regarding the quantity of seed to use per acre of any class of farm crops which would give the highest returns under all circumstances. I am pleased to present at this time the preliminary results of an experiment which was started at the Ontario

Agricultural College in 1909, and which has now been conducted in each of the past four years.

An experiment has been conducted in each of four years by using both large and small seed of heavy stooling, medium stooling, and light stooling varieties of oats, and by planting the seed of each variety in squares, one, two, three, four, six, eight and twelve inches apart. The seed was planted by hand, and with very great care. Each plot was surrounded by oats of the same kind, and planted in the same way. When the crops were ready to harvest, the surrounding plants were removed so that the crops under experiment would not be influenced by the paths surrounding the plots. After the seed had germinated and the oat plants had appeared above the ground, notes were taken in regard to the stooling of the plants every twenty-four hours. Other notes in regard to height, amount of rust, strength of straw, etc., were taken at the proper times. Each plot was harvested with great care. The actual number of heads on each plot were counted. The weight of the total crop was determined, and after threshing was completed, the amount of grain was subtracted from the entire crop, thus furnishing the combined weight of straw and chaff. The following table gives the average results of thirty-two tests made by planting oats at seven different distances apart:

In an experiment of this kind, it is usually considered wise to extend the experiment into extreme conditions, hence, in the thickest seeding, the oat grains were planted one inch apart each way, which would require, on the average, a little over twelve bushels of seed per acre, and in the thinnest seeding the oat grains were planted one foot apart each way, which would require only about one-tenth of a bushel or a little less than three pounds of seed per acre. Some of the intermediate seedings, however, approximate more closely the quantities of seed which are used in actual practice, as, for instance, where the grains were planted two inches apart each way, it required about three bushels of seed per acre, and where the seeds were planted three inches apart each way, the amount of seed required would be about one and one-third bushels per acre. We expect to start another experiment in which several different thicknesses of seeding will be used, but the range will probably run from about one to four bushels per acre.

The foregoing average results are worthy of very careful consideration. It is probably the first time that an experiment of this kind has been conducted in the manner here described. It should be remembered that each column represents the average of thirty-two distinct experiments. Those experiments covered a period of four years, which included an exceptionally dry season and an exceptionally wet season. The yields of grain per acre are much lower than we usually obtain in the Experimental Grounds at Guelph. This is due to certain reasons, one reason being the unfavorable weather conditions of some of the years, and another reason being the fact that we conducted the experiment on land which would be unlikely to cause the straw to become badly lodged, especially in a wet season. Even though this precaution was taken, the crop lodged considerably, especially in 1912, when the weather conditions were conducive to a very large yield of straw of a succulent character.

The fourth column from the left shows that the number of heads, or stools of an oat plant can be regulated largely by the thickness of seeding. When the seeds were planted one inch apart each way, there was only an average of one head per plant, and when the seeds were planted twelve inches apart each way there was an average of eleven heads per plant. The number of heads per plant increased according to the increase in the distance between the plants.

In the fifth column we have the comparative number of heads from equal areas of land. Where the seeds were planted one inch apart there were 144 times as many plants as on the same area of land where the seeds were planted twelve inches apart, and only about eleven times as many heads. It will, therefore, be seen that while the number of heads per acre decreases with the thinness of the seeding, that decrease is not nearly as great as the decrease in the number of seeds planted.

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According to the results presented in column six the highest average crops were produced by the plants which were planted in the six-inch squares. These plants were about five inches taller than those which were planted in the inch squares, and about one and one-half inches taller than those which were planted in the twelve-inch squares. It seems apparent that where the plants were a foot apart each way the stooling was so abundant that the energy of the plant was expended in the production of stools to the sacrifice of the height to a limited extent. The results shown in the sixth column correspond, to a certain extent, with those in column five. It will be seen that the plants which lodged the most were those which were also the tallest, and were produced from the seeds which were planted six inches apart. It is interesting to notice that the very thickest seeding produced a crop which was lodged less than any of the other seedings. These results seem somewhat different from the popular conception that it is necessary to sow oats comparatively thin so as to reduce the percentage of the lodging of the grain.

The average results of the per cent of rust shown in column number eight, is also very interesting as they show a gradual increase in amount of rust on the straw of the oats from the thickest to the thinnest seedings. The plants from the thin seeding had about three times as much rust as those from the thick seeding. The amount of rust on the plants which were four inches apart was about average of that of the thinnest and the thickest seedings.

The average number of days from the time that the grain was planted until the plants were matured are presented in column nine. It will be seen that there is a difference of nine days from the time that the thickly seeded plants matured until the thinly seeded plants had ripened. The increase in the stage of maturity corresponds exactly with the increase in the distance between the plants. The farther the plants were apart the later they were in ripening. It will, therefore, be observed that as the amount of seed oats per acre is increased the stage of maturity of the crop is hastened.

The average results presented in column ten, although not as regular throughout as some of the other columns, are nevertheless just as interesting. It will be observed that the heaviest average weight per measured bushel was obtained from the crop which was sown in the three-inch squares, and from this seeding there was a gradual decrease in weight per bushel as either the thickest or the thinnest seeding is approached. The lightest oats were produced from the thinnest seeding. It will be seen that a heavier weight of oats per bushel was obtained where one and one-third bushels of seed were sown. Although the weight per measured bushel, even in the highest average, is less than the standard, it must be remembered that at least two out of the four years in which this experiment was conducted, the weather conditions were somewhat unfavorable for the production of oats of high quality in Ontario.

The combined yield of the straw and the chaff is presented in the eleventh column. These average results show us that for a large straw production it is necessary to sow oats comparatively thick. Even the land which was sown with oats at the rate of twelve bushels gave a greater yield of straw than the land which was sown with oats at the rate of three bushels per acre. With only a slight exception there is a gradual decrease in the yield of straw and chaff per acre from the thickest to the thinnest seedings. It is interesting to note, however, that three pounds of oats produced more than one-half the yield of straw as obtained from four hundred and fourteen (414) pounds of oats as seed per acre.

In the last column, which may be considered as the most important of all, we find that the greatest yield of grain per acre was obtained from the oats which were sown three inches apart each way. From this yield there is a gradual decrease in yield per acre to both the thickest and the thinnest sowings. It is very interesting to note that the yield from three pecks per acre was four bushels greater than that from the crop obtained from sowing three bushels per acre. The results here presented favor rather thin seeding as against thick seeding in the production of oats.

Particular attention should be drawn to the fact that in the experiment as here conducted, one and one-third bushels of seed per acre when placed in the land very evenly gave a greater yield of oats per acre, which weighed more per measured bushel, than that obtained from either three bushels or from three pecks of seed per acre. The results presented in the above table are very suggestive, especially as forming a basis for other experiments which are to follow. In another year or two we expect to present the results of this and other experiments which we have under way in a more detailed manner. When this material is submitted we believe it will add

a considerable amount of valuable information in regard to both selection of seed and the stooling properties of oats, as they relate to crop production in addition to the information furnished in regard to the thickness of seeding of this most important crop.

Mixtures in Root and Vegetable Seed.

The final session of the Canadian Seed Growers' recent annual meeting was devoted to a discussion of field-root and vegetable seed. In presenting a paper on the results of two years' work in testing field-root seeds of commerce to prove genuineness of stock, E. D. Eddy, Chief Seed Inspector, Ottawa, pointed out the great variation that is found in seed listed as the same variety or strain by different seedsmen, and also the wide range that sometimes occurs within one lot of seed. One lot, tested as Red Globe, contained only 20 per cent. Globe roots, there being 70 per cent. Eikendorf and 10 per cent. Intermediate, with 6 per cent. of the roots yellow. Many other instances were cited to show that much of the seed now on the market is not true to variety name.

Thos. Delworth, president of the Ontario Vegetable Growers' Association, also stated that market gardeners find the same trouble with vegetable seeds, and they are willing to pay almost any price for seed that is true to name, and suited to the conditions under which it is to be grown.

Geo. H. Clark, Seed Commissioner, discussing the means of improving the seed supply, stated that the principal reason why so much root and vegetable seed not true to name is being put on the market, is because the seedsmen do not always buy from reliable growers who can guarantee their seed, but buy cheaper seed that may not have been properly selected, or may have been cross-fertilized in growing. If farmers fully realized the advantages of securing the best selected seed and were willing to pay the price for it, our importers would have to bring in high-quality stock, but at present much of the root and vegetable seed sold in Canada is procured from the cheapest and unreliable growers. The production of home-grown seed, that experience may show can be grown profitably in any particular part of Canada, was advised.

POSSIBILITY OF GROWING VEGETABLE AND ROOT SEED IN CANADA.

W. T. Macoun, Dominion Horticulturist, Experimental Farm, Ottawa, presented a summary of the work that has been done in Canada in growing vegetable seeds. A large number of roots have been grown at the Experimental Farm at Ottawa, including a very superior strain of tomatoes, and also at a number of other points. Information gathered from different parts of the country seemed to indicate clearly that a great many kinds of vegetable and root seeds can be grown in Canada, but whether it can be made a success commercially is yet to be proven. The great difficulty is in securing labor cheaply enough to make it possible to compete with European growers.

The results of some preliminary work in growing root seed at Macdonald College, Que., were presented by Paul Bauing. Samples of home-grown and best imported seed were shown in germinating dishes which demonstrated the superior vitality of the home-grown seed. Mr. Bauing cited the success that has been achieved in growing Swede turnips in Yarmouth Co., N. S., as an instance of what may be done in districts adopted to producing seed of any particular plant. Mangel seed, evidently superior to the imported seed, has been produced at Macdonald College, and while there is not sufficient evidence yet to say what kinds of seeds can be successfully grown in Canada, it will likely be found that there are many districts where certain sorts can be produced to advantage.

Save the Liquid Manure.

"With proper care three-fourths of the nitrogen in the crops grown and fed on the farm can be returned to the soil," says Porter Elliott, an instructor for the College of Agriculture, Ohio State University. If, however, the liquid part of the manure is allowed to escape, only a small part of the nitrogen will be saved. A ton of clover hay, for instance, has in it about 40 pounds of nitrogen. When fed, 10 pounds, on the average, is retained in the animal body, 10 pounds is voided in the dung, and 20 pounds passes off with the urine. If the urine is lost then only 10 pounds or one-fourth of the nitrogen in the hay has any chance of going back to the field in the manure spreader. Tight floors and plenty of bedding are recommended by Mr. Elliott as a means of preventing this loss.

Getting a Catch of Clover.

The growing of clover is undoubtedly one of the most important branches of mixed farming, and in view of the fact that many have difficulty in getting good catches of this crop, we conclude that many growers might be helped by the experience of some of the most successful growers in this country. Accordingly a letter bearing the following questions was sent out to several successful growers.

- 1.—Of the various methods of seeding which do you prefer?
- 2.—How much seed do you advise sowing per acre, when the crop is sown alone or when mixed with timothy?
- 3.—Do you sow in front of or behind the grain drill, or do you use a separate machine for supplying the seed, or sow it by hand?
- 4.—What nurse crop do you consider best, and why?
- 5.—How much seed of this nurse crop do you sow per acre?
- 6.—Do you get better results from early or late seeding?
- 7.—What class of soil do you find best suited to the growing of the clover crop?
- 8.—Do you give the soil any special preparation other than that which it would receive for an ordinary grain crop?
- 9.—Do you inoculate the seed?
- 10.—Do you find that relatively poor soil gives much greater difficulty in securing a catch?
- 11.—Have you noticed any difference in a catch sowed with an early-maturing crop as against that shown with a late-maturing nurse crop?
- 12.—Do you ever pasture clover in the fall after spring seeding?
- 13.—In cutting the grain do you think it is advisable to leave a long stubble to hold the snow on the clover during the winter, or do you think this makes any difference?
- 14.—Do you test your seed before sowing?
- 15.—Have you found that dark highly-colored seed gives better results than the lighter-colored seed, if the latter is as plump as the former? Of course, there should be a difference if the latter were shrunken or inferior seed.

A. W. Peart, a prominent grower in Halton County, replies as follows:

- 1.—When sown on fall wheat, I sow usually between the first and tenth of April, at the period of the opening season, when it freezes at night and thaws out in the day-time. The frost honeycombs the soil; the seeds drop in to a greater or less extent, and are covered up by the thawing process and subsequent rains. When sown on barley or oat land, I set the seeder attachment to discharge the seeds behind the drill spouts, then cover with a light harrow or roller according to conditions.
- 2.—Eight pounds of red clover seed, plus four pounds timothy; or, four pounds red clover, plus two pounds alsike, plus four pounds timothy. The latter is my favorite mixture.
- 3.—Behind the grain drill, or we use a small centrifugal hand machine to ensure uniform distribution.
- 4.—Wheat or barley—the clover is less shaded, and grows stronger and more hardy.
- 5.—One bushel and a half of wheat or barley, one bushel of oats.
- 6.—Early—that is, around April first.
- 7.—Light clay loam or gravelly loam; on heavy clays and light sands we find it more difficult to get catches.
- 8.—No.
- 9.—No. We have not yet found it necessary to do so, but if soil conditions were not suitable for clover growth I would try it.
- 10.—Yes. We find that heavy clays and light sandy soils require extra preparation, and give them a good dressing of well rotted stable manure. Here is where inoculation might profitably step in.
- 11.—I prefer the early-maturing nurse crops where practicable. The clover gets the use of the land sooner.
- 12.—That depends upon the body of growth the young clover has made. Where it is thick and rank, five or six inches high, I sometimes pasture in November. As a rule, however young clover should not be pastured that season.
- 13.—I leave a reasonably long stubble both for summer protection of the young plants after harvest, against the sun, and also for winter protection.
- 14.—No. I buy No. 1 seed, and it does not often fail me.
- 15.—I prefer the dark high-colored seed on general principles, without any special data to speak from.

I consider clover growing the sheet anchor of successful mixed farming. The value of the plant in itself as a food, the mechanical power of its roots in breaking up and granulating the soil, and its fertilizing properties, due to its ability to abstract nitrogen from the air by means of its bacteria-laden roots—these various

functions place clover in a class by itself, as an instrument on the farm for reducing the cost of production on the one hand, increasing the farm output on the other, and still conserving in a large measure the fertility of the land.

In sound farm economics, I consider clover a necessity.

Home-made Cement Fence Posts.

We never drive abroad through any part of the country without finding something worth describing. In the County of Huron, lately on the farm of Michael Elford we were shown some very good home-made cement fence posts, both anchor posts and line posts. The anchor posts are molded in galvanized iron molds, the edges of which lap and are held together by removable iron hoops. They are made eight feet long, and round, 14 inches in diameter at the bottom, tapering to 10 inches at the top. The material is cement and gravel mixed 1:6, and the only reinforcing is a piece of old boiler flue imbedded in the centre but not reaching quite to top of bottom. A wagon-load of gravel makes four or five of these posts, and the cost of material for each has been figured out to seventy five cents. The smaller line posts are made seven and a half feet long, with square corners, being seven and a half inches at the bottom, and four and a half at the top. They are reinforced with a strand of twisted wire placed in each corner in this wise. After a little cement concrete has been placed in the mold, which lies in a horizontal position on a smooth floor, a double length strand of this twisted wire is bent into a U-shape and laid in the mortar. When nearly filled, another such U-shaped piece is laid in, care being taken that the wire never comes against the face of the mold. The posts when made are left a day to cure before removing the molds. Four men can make about forty of them a day. These posts when erected have a vertical face to which the wire is applied, and the opposite face batters up making the size less at the top than at the bottom. To hold the wire, staples are inserted in the vertical face when making, so spaced that every other strand of the fence to be used will rest on a staple. The staples project three-quarters of an inch or so and a vertical wire runs down through them, the horizontal wires of the fence being confined between this loose stay-wire and the face of the post. Speaking from memory, our informant thought a wagon-box of gravel would make twenty to twenty-two of these small posts.

More About Boiling Sap.

Editor "The Farmer's Advocate":

In the letter of Johnny Cope, in your issue of February 13th, the method for boiling maple syrup is very good. The only objection is, when fresh sap is poured into the ordinary pan, it stops boiling for some time. To prevent this, some in our vicinity hang a kettle behind the pan. In this kettle the sap is put in as it is cold. At the top of the kettle, or rather two inches from the top, a hole was bored in by a blacksmith, and a half-inch pipe, four or five inches long, inserted, (so as not to leak, of course,) the sap is then let into the kettle from tank or barrel, where sap is stored, or from a water-tight box especially made for the purpose by a common barrel faucet and a piece of evertough. The faucet is regulated so as to replenish the quantity into the kettle as fast as it will evaporate. The outfit is in this way more automatic, the sap running constantly into the kettle, becomes warm and through the little pipe it runs into the pan. It being warm does not affect the boiling of the sap, consequently saving time and fuel. It is a little difficult to get a kettle in properly, so as to leave no smoke out nor any flames, so I studied out a better plan.

Another pan of the width of about two feet in length, the same as the width of the larger pan and also same depth or two inches deeper, placed behind large pan. A small tin tube is inserted in pan, same as in kettle (if small pan is used it must be set two inches higher than the other to spout in the large pan). This is even more profitable, because the sap gets much hotter in a pan than in a kettle. It often even comes to a boil.

There is also a different way of getting sap hot before it comes into the pan—procure empty carbide boxes if you can, fit them together and use as a smokestack. Put barrel behind fireplace, have a pipe inserted in the barrel and bore holes on both sides of carbide box (one towards pan, other at back) as large as pipe, put a faucet on pipe which is thrust through holes in smokestack, the enormous heat passing through the smokestack will warm sap as fast as it will boil down in pan.

Waterloo Co., Ont.

S. K.

THE DAIRY.

Keep Up the Profits.

Editor "The Farmer's Advocate":

May I offer a suggestion to our worthy Prof. Dean in connection with his letter appearing in your issue of Feb. 27th, entitled, "Keep the Export Trade," viz., that with his co-dramatist they proceed to the old dairy district of Oxford, and in the neighborhoods of the condensing and milk-products factories, rehabilitate the cheese factories which, a few years ago, were largely assisting in increasing the export trade in cheese. And although the "atmosphere" may be suffocating and the people may be "smothering" without realizing it, it will be found they are still capable of exercising a measure of discrimination which qualifies them to know whether they are realizing a better return for their milk and their labor in producing it, than if they were engaged in keeping up the export trade in cheese. The dairying business may have an aesthetic side. Possibly some men have found it; but my observations from a lifetime connection with it the producing end for a long time, has been that men are at it because their living is in it; that if one branch of dairying is more remunerative than another that branch will be favored. The town and city milk trade, the condensers and milk-products factories, the ice-cream trade, the cream-export trade as well as the creamery, all are competing with cheese production, drawing therefrom milk that used to



The late Dr. Carl Gustav Patrick De'Laval, of Sweden,

Whose death was announced in "The Farmer's Advocate" of February 27th, inventor of the centrifugal cream separator, and founder of the cream separator company which bears his name. Dr. De Laval has been called "The Edison of Dairying."

enter largely into cheese production. What, with a decreasing rural population, an increasing city and town custom, etc., can be expected than that those branches of the dairy business which are least remunerative shall feel the effect of curtailment in production, if such there be? And it is not that "the farmers have nothing to say regarding the management of their affairs," not that they are "being strangled" even though these statements may be true regarding a few of the farming population that will not respond to the increased production of cheese that is being demanded. The reasons are wholly economic. Give us satisfactory labor to assist us in our work, assure us of more profitable returns from this branch of dairying than from the others, direct the energies of the thousands who are engaged in profitable meat producing, or fruit growing industry, to dairy production by making it more profitable than any other, and no agricultural prophet who assists in bringing about this end will need to beg his bread among the rural districts of good old Ontario, or have any fear of stoning when he comes to present his novel twentieth-century drama to the crowds who will assemble to do him honor. "Keep up the Export Trade" is a good slogan for the dairyman. "Keep up the Profits" is a better.

Middlesex Co., Ont.

C. Mc W.

Parturient Troubles in Cows. RETENTION OF THE AFTERBIRTH OR FOETAL MEMBRANES.

(Continued)

Retention of the afterbirth (frequently called the placenta) is not uncommon in cows. It is noticed in cows in all conditions and in all seasons. While probably it is more frequently met with in cows in low condition and unsanitary surroundings, no care, food or surroundings act as a preventive. We cannot understand why it occurs, or why it cannot be prevented, but experience teaches us that such are the facts. In ordinary cases the afterbirth is expelled shortly, or at most in a few hours, after parturition. While in others it is retained for 24 hours, or even longer, and then spontaneously expelled. And in others spontaneous expulsion will not take place except after decomposition, when it escapes in pus and small pieces.

The symptoms of retention are generally evident by the protrusion through the vulva of a portion of it, but in some cases this symptom is not present, the membranes being wholly retained within the uterus. In such cases, providing the cow has been untied it is hard to know whether they are retained or have been eaten by the cow. Cattlemen are all aware that cows have the objectionable habit of eating the afterbirth. We cannot account for this taste. When possible it should be prevented. In some cases it does not appear to affect the animal in any way, in others it causes more or less derangement of digestion and consequent illness, while in others it causes death. The placenta contains a large number of arteries of various sizes. The coats of these are largely composed of what is called "yellow elastic tissue," which is practically indigestible. When the mass is taken into the stomach the soft tissues appear to be digested, but the arteries, (at least in some cases) remain practically intact, reach the fourth compartment, form a ball, (resembling a ball of twine,) and remain there. This interferes with digestion, and if this ball reaches the pylorus, (the exit from stomach to intestine,) it will occlude it and death will soon follow. Hence, even while serious results are rare, it is wise to prevent consumption of the placenta by the cow, while it is wise to allow a cow liberty in a box-stall, or paddock during parturition, it is well to tie her afterwards, until the membranes have been expelled and removed.

Some claim that it is wise to allow nature to take its course when the afterbirth is retained; that manual removal is not advisable, but this has not been our experience, when not expelled or removed it decomposes, and in most cases interferes materially with the health and thriftiness of the cow, and there is danger of absorption into the circulation of some of the pus, which may be followed by death from blood poisoning. While comfortable quarters, sanitary surroundings, exclusion from draughts and cold water, and allowing warm drinks and mashes for a day or two after parturition in cold weather, tends to favor spontaneous expulsion, it does not always act and we find that when nature fails to act medicines are also useless, and the only means of removal is by the hand. Just what length of time should be allowed to elapse after parturition before it is wise to interfere, depends, to some extent, upon the weather. In warm weather decomposition commences quickly, and it is not wise to delay interference longer than 24 hours, while in cold weather it is safe to allow 48 hours or even longer.

Having decided to operate, the owner or cattleman must decide whether his knowledge and skill in the matter are sufficient to warrant his interference, or whether it would be wise to employ a veterinarian. If the cattleman has a knowledge of the anatomy of the parts, has patience and is not afraid to tackle a tedious and dirty job, he can operate himself, otherwise it will be profitable to employ an expert. A pail of antiseptic solution should be made, as a warm one per cent. solution of Creolin, Zenoleum or other coal tar product, a one and a half per cent. solution of carbolic acid or other antiseptic. A couple of gallons of this should be injected into the womb by the use of an injection pump, a syringe with a long nozzle or a rubber tube with a funnel at one end. The end of the tube to be introduced into the womb, the funnel held high, and the fluid poured into it and allowed to enter the womb by gravitation. The hands and arms of the operator should be thoroughly washed with the solution, and then thoroughly oiled. Before commencing the operation, the finger-nails of the operator should be trimmed to prevent scarification. The hand is then introduced into the womb, an attendant holding the cow's tail and keeping her steady. The operator will discover (if he does not already know) that there are many (50 to 60) lumps (called cotyledons) varying in size from that of the end of a man's thumb to three or four inches in diameter attached to the womb by constricted necks. He must be careful not to tear these off.

fruit. The Duchess has been a paying apple when handled as a tender fruit like the peach, and shipped to the West in refrigeration. The Wealthy is a heavy-bearing, small-growing tree, with fruit of good quality and color. McIntosh Red and Snow or Fameuse are fancy dessert apples, but have a brief picking season, dropping badly when ripe or nearly so. The McIntosh tree grows large, while the smaller Snow tree is well adapted for alternating with rows of McIntosh.

Now that our orchard is planted we are much pleased with it, and there is nothing done that we should wish to change.

A number of important principles have been very advantageously combined, and while localities differ widely and every planter has individual problems of his own, we trust this article may prove suggestive to all.

POULTRY.

Prof. Elford's Appointment.

We are pleased to announce that Prof. F. C. Elford is once more back in his element, which is professional poultry work, having been appointed Dominion Poultry Husbandman in the Experimental Farms Branch of the Department of Agriculture, Ottawa, where his headquarters are to be. He is in charge of the poultry work not only on the Central Experimental Farm, but on all the Dominion Branch Experimental Farms throughout Canada. Previous to joining the staff of Macdonald College, Prof. Elford was in charge of the Poultry Division of the Department which he is now rejoining. He left the College a year or so ago to accept a professional position with an American Incubator Co., which, however, he soon resigned to establish a Canadian agency for another incubator firm. Prof. Elford is popular, practical and persuasive in public address. A vast field lies before him, and universal satisfaction will be expressed at his appointment. Mr. Gilbert, whom he succeeds, and who has by hand and tongue and pen done splendid practical service to the Canadian poultry industry during the last twenty-seven years is relieved of responsibility, but is retained by the Minister at his last previous salary in an advisory position. Mr. Gilbert has well earned a relaxation, but it is fortunate that his long years of experience are still retained in the service of poultry husbandry.

THE FARM BULLETIN.

Agriculture, Board of Trade and Education.

Belleville is, according to W. W. Anderson, of Prince Edward Co., one of the farmer members of this Board, the pioneer city in Ontario, in the matter of having representatives of the farming community on its Board of Trade. This step was taken in order that the producer and consumer might be brought together and better facilities of marketing produce result. Mr. Anderson was a delegate to the recent meeting of the Associated Boards of Trade, held in London, Ontario. He operates a farm of 110 acres, just three miles from Belleville, a city of 13,000 inhabitants; this he considers one of the best local markets in Ontario. He believes in mixed farming, because, as he aptly puts it, "you then have more than one string to your bow"—if one branch fails you have another upon which to rely. Following out his ideas he has 27 acres of orchard, keeps about 10 good Holstein milk cows and resulting young stock, grows various crops suited for feed, and keeps a pen of 100 pure-bred Barred Plymouth Rock laying hens, on the colony-house plan. He is strong in his praises of Prince Edwards' District Representative of the Department of Agriculture, A. P. McVannel, B. S. A., who is doing much in education leading to a better agriculture. Mr. Anderson believes that our educational system requires remodelling if we are to keep the youth in the rural districts. To overcome the trek cityward he recommends that consolidated graded schools be established where pupils could qualify for the university and still remain in the country surrounded by home influences and wholesome conditions. He attributes the decrease in rural population to the children being sent to town or city to High School and Collegiate Institute at such an early age that city ways impress themselves so upon their formative minds as to give them ever afterwards a dislike for the country. Keep the child in the country until he is old enough to appreciate its advantages and see the emptiness of the city, and he believes he will never desert his country home for the lure of the white lights of any city.

Knowing Things "Officially."

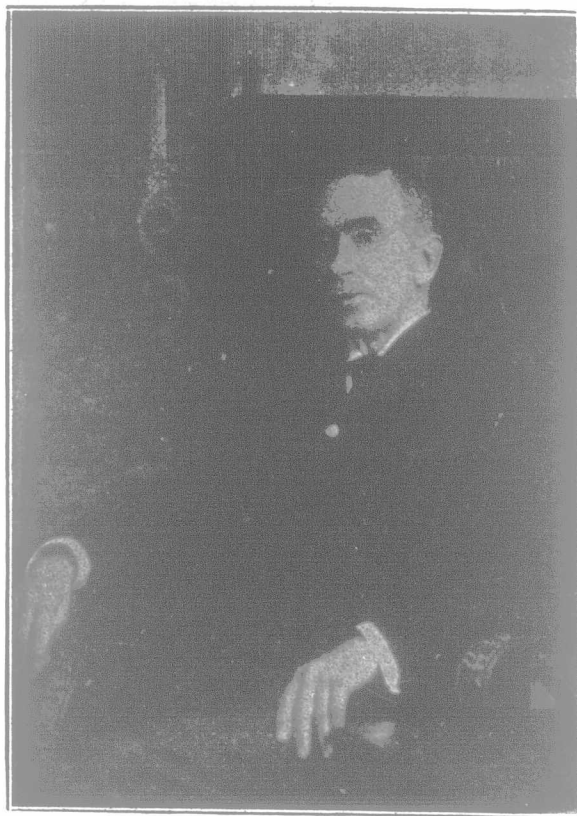
By Peter McArthur.

An old assistant editor of the New York Tribune used to tell a good story about Horace Greeley. One winter holiday, Christmas or New Year's day, the assistant went to the office to get something he had forgotten, and found Greeley sitting with his feet on the box-stove reading the papers. A glance showed him that the fire was out, and a look at the office thermometer revealed the fact that the temperature was dangerously close to zero.



Prof. F. C. Elford.

Recently-appointed Dominion Poultry Husbandman.



A. G. Gilbert.

Retired from active work as manager of the Poultry Department of the Central Experimental Farm, after many years honorable and efficient service. Mr. Gilbert's services have been retained in an advisory capacity.

"Why, Mr. Greeley," he exclaimed. "You must be almost frozen. There is no fire in the stove, and the thermometer stands almost at zero."

The great editor got up, glanced at the stove and at the thermometer, and then snarled in his shrill piping voice:

"Confound you! Why did you tell me? I was quite comfortable, but now that I know how cold it is I am freezing to death and I'll have to go home."

It is a favorite joke with the comic paper

artists to show a man going about his work on a hot day and seeming quite comfortable until he looks at the thermometer. As soon as he sees that the thermometer is in the neighborhood of one hundred he promptly wilts. And we have all known people to be going about their work complaining a little about not feeling well until they consulted a doctor. As soon as they found out "officially" what was ailing them, they gave up at once and took to their beds. From these instances it appears that there are two ways of knowing things—knowing them privately and knowing them "officially." Greeley knew it was cold, but as long as he did not know "officially" how cold it was he could stand it. It is the same with the man in the heat, and the sick man. They can get along before they find out things "officially."

* * * * *

Down in Ottawa the banking committee is trying to get some "official" information about banking conditions that will justify them in putting through or refusing certain reforms that are asked for by the people. There are doubtless members of that committee who know privately about all there is to be known about business conditions, but they can do nothing until they know it "officially." They are calling many witnesses to testify before the banking committee, and if these men give information with the necessary legal proof, that will change private knowledge of banking affairs to "official" knowledge, something will have to be done. But it is no easy matter to make private knowledge "official." Everybody may know privately that something is "rotten in the State of Denmark," but until some responsible Dane tells what he knows under examination and enables the examining court to get evidence that can be acted upon, nothing can be done, even though everyone connected with the investigation may know more than anyone dares to testify. You know the old fable about the mice that held a meeting and decided that they must have a bell put on the cat so that they could hear her coming, but their decision was made useless by the fact that no one had the courage to bell the cat. The business men who have the knowledge that would enable us to bell our cat, are afraid to do anything for fear of the powerful enemies they would make. And then there is the possibility that the members of the banking committee would hardly know what to do if they got "official" knowledge of what they already know privately. They cannot afford to make enemies any more than any one else. Altogether it is a very interesting situation, but if the people continue to bring pressure to bear on their members of parliament it is just possible that we shall get "official" knowledge of things that we already know privately, and force a system of government inspection of the banks.

Those who have been following the course of affairs in the United States have had an exhibition of what is likely to happen in Canada during the next few years. There has been a great deal of clamor against organized capital, and there have been many investigations. Everyone knew that a lot of things were wrong, but there was no "official" knowledge of wrong-doing. In the big magazines, Thomas W. Lawson, Lincoln Steffens, C. P. Connolly and others, who were described as "muckrakers," exposed the general rottenness of affairs, but nothing was done. It seemed as if nothing could rouse people to action. Finally the Pujo committee began its investigations, and employed Samuel Untermyer, the shrewdest cross-examiner of the American bar, to corck-screw evidence out of reluctant witnesses. By investigating different trusts that depended on the aid of centralized capital to maintain their monopolies, he was able to get "official" knowledge of the existence of a Money Trust. The American Government now has "official" knowledge of the working of American capital, and it is said that President Wilson will send a message to congress on the subject in a few weeks. But what interests me is that the Pujo committee did not bring out a single fact that was not already known to everyone, through the writings of the "muckrakers." What the committee was able to do, by the aid of its lawyer, was to make that knowledge "official," so that it can be acted upon. Perhaps if our banking committee employed a competent lawyer for the purpose, a lot of things that are now well-known would become "officially" known. It is also interesting to note that the "official" knowledge was not gained by examining the critics of the system, but by examining the captains of big business. Apparently we are not quite ready for an investigation like that of the Pujo committee, but the time will come. One of the shrewdest of Canadian editors told me some time ago that he was able to foresee the probable course of affairs in Canada by watching the fate of similar questions across the line, and as he is at present doing all in his power to force a thorough investigation by the banking committee, it looks as if he were still reading our future by the light of the United

States. If he can force the same kind of investigation as they have had there, something will be accomplished.

Once upon a time, in a far country, a great many sheep were being killed. Try as they would the guardians of the public safety could not capture the destroyer of their flocks. Suspicion fell on an old watchdog of aggressive respectability, and he was arrested and dragged to court. But he stood on his dignity, and employed the fox to act as his lawyer. Though it was shown that he was seen coming out of a field where a sheep had been killed, no one had seen him attack the sheep. To prove the innocence of the watchdog the fox called a lot of witnesses who testified that he was a strict vegetarian, and there was nothing left for the jury to do but to acquit him.

Having learned a lesson from the trial, the watchdog went about in public, and allowed himself to be seen eating cabbage and silage and other kinds of fodder. But every night another sheep was killed, and the mystery became the talk of the whole land. Everybody was sure that the watchdog was the guilty party especially as he kept getting fatter and fatter, but his habit of eating vegetables in public, and the wise advice of the fox, made it impossible to fasten the crimes on him.

Now the prosecuting attorney of that country was the original wise guy, and one day when thinking the matter over he scratched his head and remarked:

"I have noticed that more skunks are caught by coon-hunters than by anyone else. I think I shall change my plan of campaign."

A short time after this a man brought an action for damages in the courts in which he claimed that a sheep had knocked him down and bitten him when he was crossing a pasture field, and he called upon the watchdog to testify that sheep are ferocious and dangerous animals. The watchdog was glad to have the chance to testify, but as soon as he opened his mouth the judge and jury and everyone in the courtroom saw that he had wool on his teeth, and after that all the cunning of the fox could not save him.

Moral: If the banking committee investigated a few mergers they might find out something about banking.

A bill has recently been up before the Ontario Legislature to regulate the width of tires on wagons and other vehicles having iron or steel tires. For wagons of from 2,000 to 4,000 lbs. capacity, the minimum width proposed is three inches; with a capacity of 4,500 to 6,000 lbs., 3½ inches, and over 6,000 lbs and up to 10,000 lbs., 4½ inches. Heavy carts shall have 4-inch and 5-inch tires, according to capacity. The bill provides that on and after January 1st, 1916, no vehicle shall be sold, and on and after January 1st, 1919, no vehicle shall be driven on the public highway in Ontario which does not conform to these rules. The bill has not yet been passed.

The Tenth International Agricultural Congress is to be held at Ghent, in 1913. The Third International Congress of the Associations of Farm Women will be held at Ghent, on the 13th, 14th, and 15th, of June, 1913, under the same favorable conditions as the Congress above mentioned. The Second International Congress for Instruction in Domestic Economy will begin at Ghent on the 15th of June, 1913, to finish on the 17th.

The Massey-Harris Company, of Toronto, has bought out the Devo-Macey Engine Company, of Binghamton, N. Y., which manufactures a complete line of gasoline engines. This is the second American plant which has been secured by the Massey-Harris interests.

Gossip.

J. E. Arnold, Grenville, Que., importer of Percheron, Shire, Belgian, Standard-bred, and French Coach horses, in ordering a change in his advertisement, announces the new arrival, on March 12th, of Percherons, Belgians, and French Coach stallions, 1 to 6 years old, Percheron mares, 1 to 9 years old, blacks and grays, including many prize winners and champions, most of the mares being safe in foal. Grenville is a station on the Montreal - to - Ottawa branch of the C. P. R., 57 miles from Montreal and 63 miles from Ottawa.

McKenzie's Holstein Sale

Wednesday, March 12th, was surely a red letter day for Canadian breeders of Holstein cattle, the occasion being the dispersion of the splendid herd of John McKenzie, of Willowdale. The very satisfactory prices obtained, and the keen competitive bidding were unquestionable proof of the ever growing popularity of the Holstein cow. Particularly keen was the bidding for the daughters of the great bull, Sir Lyons Hengerveld Segis. The very favorable weather brought out a crowd of about three hundred, and they were there for business. The cattle were in prime condition and the auctioneer, J. H. Prentice was in his best form, and the sale was run off without a hitch. All told, including six calves but a few days old, forty-one sold for a grand total of \$6,780. Seventeen of milking age sold for \$3,465, an average of \$203.82, the highest price being \$360, nine of them selling for \$200 and over. Six heifers rising two years of age sold for an average of \$236.66, the highest price being \$295, and five out of the six sold for \$200 and over. Seven heifers rising one year of age sold for an average of \$167.15, the highest price being \$270. Two heifer calves, but a few days old, sold for \$80 and \$105 respectively. Four bull calves a few days old sold for an average of \$36.25. Five young bulls sold for an average of \$79. The principal purchasers were W. R. Elliott, Unionville; Sherrick Bros., Bethesda; Mr. Calahan, Lindsay; A. Muir, Scarborough; H. W. Duncan, Atwood and Gordon Goderham, Bedford Park.

James Cowan's Shorthorn Sale.

Considering the bad weather which prevailed on March 6th, the attendance at the dispersion sale of Shorthorn cattle, the property of James Cowan, Seaforth, Ont., was very large, and the sale a decided success. Captain T. E. Robson, the well-known live-stock auctioneer, wielded the hammer, and the prices realized were satisfactory. Cattle were in good breeding condition—just right to go ahead and make money for the buyers. The proceeds of the sale, including horses, implements, etc., amounted to \$6,800, and twenty-four of the thirty-two head of Shorthorns, including calves brought over \$100 each, or an average of over \$129 each.

- The following is list of those selling for \$100 and over, together with the purchasers:
- Celia 10th (imp.), David Milne, Ethel..... \$100
 - Celia 11th, James H. Morrison, Winthrop. 143
 - Celia 14th, Adam Dodds, Seaforth..... 137
 - Celia 12th, Joseph Dorrance, Seaforth..... 110
 - Celia 15th, Robert Scott, Seaforth..... 102
 - Celia 21st, Oliver Marshall, Elora..... 100
 - Celia 19th, John Daily, Seaforth..... 110
 - Celia 20th, Wm. Beattie, Seaforth..... 113
 - Celia 23rd, Fred Hunkin, Kirkton..... 116
 - Celia 26th, Oliver Marshall, Elora..... 135
 - Maggie 2nd, John N. Ratcliffe, Exeter..... 152
 - Maggie 3rd, W. J. Rybus, Chiselhurst..... 147
 - Maggie 5th, F. W. Smith, Scotland..... 105
 - Maggie 7th, F. W. Smith, Scotland..... 111
 - Lady Jane (imp.), E. H. Wise, Clinton..... 140
 - Maggie, John Hay, Seaforth..... 140
 - Scottish Beauty 3rd, James H. Morrison, Winthrop. 131
 - Scottish Beauty 4th, W. J. Beattie, Seaforth. 131
 - Royalist (bull), W. E. McLaren, Cromarty. 201
 - Roan Lady 40th, John Stephen, Bornholm. 175
 - Roan Lady 41st, Samuel Cudmore, Hurondale. 140
 - Roan Lady 43rd, Joseph Brewster, Winthrop. 131
 - Roan Lady 48th, Fred Hunkin, Kirkton. 107
 - Roan Lady 46th, John N. Ratcliffe, Exeter. 180

Teeples's Holstein Sale.

Ideal weather conditions, a big and representative crowd of breeders interested in the great black and white dairy cattle, a high-class lot of cattle in first-class condition, spirited bidding and an auctioneer tuned to the occasion was the combination that made the big Holstein sale of A. H. Teeples, at Woodstock, on Tuesday, March 11th a complete success. True there were some bargains, but all through from the calves to the adults the average was a most satisfactory one. A rather remarkable feature of the sale was the general uniformity of prices paid, but then the cattle showed a remarkable uniformity in type, quality and producing ability. Nearly the entire lot went to buyers from the immediate vicinity of Woodstock, Owen Sound and Bradford, being the most distant points. Forty-seven head sold for a total of \$7,312. Twenty-six females of milking age sold for \$4,779.50, an average of \$183.82, the highest price being \$250. Eleven sold for \$200 and over. Five heifers rising two years of age made an average of \$165.00. Seven heifers rising one year made an average of \$106, and two heifer calves sold for \$70 each. Three stock bulls sold for \$590, an average of \$196.66, the highest price being \$300 for Prince Abbecker Mercena. Four young bulls sold for \$275, an average of \$68.75. Peter Smith, Stratford, John Waldie, Stratford and W. B. Toole, Salford, were the heaviest purchasers.

Rural Mail Facilities Increased.

The advantages of the Canadian rural mail-delivery system have recently been increased, under a new regulation of the Post Office Department, which requires rural mail couriers to transact money order and postal note business for box-holders on their respective routes, and also to carry a supply of postage stamps, sufficient to meet the requirements of the patrons, and to accept letters for registration from box-holders, and give receipts therefor.

In this way the rural delivery system will become a post office on wheels, and will add much to the increasing conveniences of rural life.

Patrons of rural delivery will be supplied with blank applications for money orders and postal notes, to be used as occasion arises. The patron will prepare the application and hand it, together with the purchase money, to the courier, who will give a receipt therefor, and will purchase the money order or postal note at the distributing office, and deliver it to the box-holder on his next trip; or the courier may be entrusted with the open letter in which to enclose the money order or postal note, and thus save time.

In the case of registered letters for box-holders, the postmaster of the distributing office will notify the box-holder of the arrival of the registered article, and the box-holder will be required to give the courier an order on the postmaster to deliver the article to the courier, and the box-holder will be expected to meet the courier on his next trip, and give a receipt on delivery of the article.

Registered letters on which the postage and registration fees have been fully paid, will be accepted by the courier and receipt given therefor.

Readers of "The Farmer's Advocate" will regret to learn of the death, from heart failure last Sunday, of Geo. H. Pedlar, President of the Pedlar People Limited, Sheet Metal Manufacturers, Oshawa, Ont. Over half a century ago Mr. Pedlar commenced operations in a small way in the tin and sheet metal business at Oshawa, and in 1892 established the Pedlar Metal Roofing Co., reorganized into a joint stock company in 1911. The business has grown to immense proportions, with offices and large warehouses in Toronto, Montreal, Ottawa, London, Chatham, Winnipeg and Vancouver. The plant at Oshawa is said to be the largest concern of its kind under the British flag.

ONE HUNDRED HOLSTEINS AT AUCTION.

The annual consignment sale of high-class registered Holstein cattle, under the auspices of the Belleville District Holstein-breeders' Society, is advertised in this issue to take place at Belleville, Ont., on Wednesday, April 2nd, the offering comprising 100 head, including bulls, cows and heifers, contributed by seven breeders, and the dispersion of one entire herd of 20 head. The Belleville district is noted for its high-class Holsteins, and this sale offers a fine opportunity to secure richly-bred producing stock in dairy lines. If interested, write for the catalogue, mentioning "The Farmer's Advocate."

A DISPERSION SALE OF SHORTHORNS.

David Milne, Maitland Bank Stock Farm, Ethel, Ont., a station on the Palmerston-and-Kincardine branch of the G. T. R., announces in our advertising columns that his entire herd of thirty-two head of Shorthorn cattle will be sold by auction, without reserve, on March 28th. This herd is of more than thirty years' standing, and is richly bred, comprising representatives of such noted Scottish strains as Campbell Bessies, Rosebuds and Clarets, Marr Beauties and Rachels, imported, or from imported cows, and most of the others sired by Broadhooks Prince (imp.) =55002=, the heifers by Royal Blossom =75442=, a Cargill-bred son of the great Duthie-bred Broadhooks bull, Blood

Royal (imp.) =68199=, while the calves have been sired by Broadhooks Model =79755=. Included in the sale is a complete set of the Canadian Shorthorn Herdbooks, 1 to 28.

Elsewhere in this issue appears the advertisement of Max Stolpe, landscape gardener, of 17 Main street east, Hamilton, Ont. Mr. Stolpe is an ex-superintendent of the Royal Gardening Institute, a gold and silver medalist, and during the past two years has become one of the foremost landscape gardeners in Canada. He has had twenty years' experience in Germany, Austria, and Switzerland. If in need of the services of a competent man, see the advertisement, and consult Mr. Stolpe.

MARKETS.

Toronto.

REVIEW OF LAST WEEK'S MARKETS

At West Toronto, on Monday, March 17th, receipts of live stock numbered 32 cars, comprising 650 cattle, 80 sheep, 12 calves, and 18 horses. No business was being transacted. Hog prices were quoted at \$9.50 fed and watered, and \$9.15 f. o. b. cars.

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

Table with 3 columns: City, Union, Total. Rows for Cattle, Hogs, Sheep, Calves, Horses.

The total receipts at the two markets for the corresponding week of 1912 were as follows:

Table with 3 columns: City, Union, Total. Rows for Cattle, Hogs, Sheep, Calves, Horses.

The combined receipts of live stock at the two yards for the past week, show an increase of 1 carload, 390 cattle, 1,333 hogs; but a decrease of 349 sheep, 126 calves, and 368 horses, in comparison with the corresponding week of 1912.

Receipts of live stock were moderately large, and quite sufficient to supply all demands, both local and outside points. The outside demand was fairly large, several buyers from Montreal and Hamilton, as well as Northern Ontario, being on the market during the week. The quality of cattle on sale was the best in many weeks, as there was a fair supply of cattle that had been prepared for the Easter market. Trade was active, and prices higher for those of Easter quality, but for the lower grades prices were not any better than at the close of the previous week.

Exporters.—There were about 250 cattle of expert weights, ranging from 1,150 to 1,300 lbs., and some 1,400 lbs., and of expert quality, good enough for Easter or Christmas trade, that sold from \$6.80 to \$7.25, and a very few individual cattle that sold at \$7.40, \$7.50, and one at \$8.50, but not more than a load all told. The highest price paid for car lots was \$7.95.

Butchers'.—Choice selected lots of butchers' cattle, sold at \$6.50 to \$6.75; loads of good to choice, \$6.25 to \$6.50; medium, \$5.60 to \$6.15; common to medium, \$5 to \$5.50; inferior, light cattle, \$4.50 to \$5; cows, \$3 to \$5.25; extra heavy, choice cows, \$5.40 to \$5.75, and a few of Easter quality reached \$6; canner cows, \$2.50 to \$3; bulls sold all the way from \$3.75 to \$5.25, and a few extra heavy bulls of choice quality, sold at \$5.40 to \$5.75.

Stockers and Feeders.—Trade in stockers and feeders was light. Stockers, 500 to 750 lbs. each, sold at \$4.50 to \$5.25; feeders, 800 to 1,000 lbs., sold at \$5.30 to \$5.75, and \$6 was paid for a few short-keep feeders.

Milkers and Springers.—Trading in milkers and springers continues very quiet, with prices little changed. The principal demand centers on the better grades, most of the fairly good to choice cows selling at \$55 to \$65, and choice to extra, from \$70 to \$85, though very few reach \$80.

Veal Calves.—Receipts of veal calves continue light, the supply not being equal to the demand. Good to choice vealers sold at from \$9.50 to \$10 per cwt.; fair to good, light calves, \$8.75 to \$9; strong-weight calves, \$6.75 to \$8.25; inferior, rough, heavy calves, at \$4 to \$5.50.

Sheep and Lambs.—Receipts of sheep and lambs were light, and, as a rule, the quality was poor. Prices continue very high, the highest ever known on the Toronto markets. Sheep—Ewes sold from \$4.75 to \$7.40; rams, \$5.50 to \$6.50; lambs, \$9 to \$10.50, the latter price being paid in a few instances for not more than a dozen lambs, about 90 to 100 lbs. in weight.

On Tuesday, John Beamish, a farmer from Woodbridge, Ont., was on the market with 23 yearling lambs that averaged 149 lbs. each, which he sold at \$9.75 per cwt., or \$14.50 per head, or a total of \$319. Considering the weight of these lambs, the price, \$9.75, was more than good.

Hogs.—Receipts of hogs was moderate all week, not enough to supply the demand, consequently prices remained firm all week. Selects, fed and watered, sold from \$9.50 to \$9.70; and \$9.15 to \$9.30, f. o. b. cars, and \$9.75 weighed off cars. The bulk of the hogs sold at \$9.65, fed and watered, and \$9.25 f. o. b. cars at country points.

Horses.—Trade at the Union Horse Exchange, Union Stock-yards, continues to be very quiet, and for that matter, we are informed by dealers, that it is the same at all the sale stables. The bulk of the business done was with local buyers for the different delivery and cartage companies. Prices were reported as follows: Drafters, \$200 to \$250; general-purpose horses, \$100 to \$225; express and wagon horses, \$100 to \$225; drivers, \$100 to \$175; serviceably sound, \$80 to \$100.

BRADSTUFFS.

Wheat.—Ontario, No. 2 red, white or mixed, 93c. to 95c., outside; inferior grades, down to 70c. Manitoba, No. 1 northern, 97c.; No. 2 northern, 95c., track, lake ports. Oats—No. 2, 32c. to 34c., outside; 32c., track, Toronto. Manitoba oats, No. 2, 41c.; No. 3, 39c., lake ports. Rye—No. 2, 60c. to 62c., outside. Peas—No. 2, \$1 to \$1.05, outside. Buckwheat—51c. to 52c., outside. Barley—For malting, 55c. to 57c.; for feed, 45c. to 50c., outside. Corn—No. 2 yellow, 58c.; No. 3 yellow, 57c., track, Toronto, all-rail shipment. Flour—Ninety-per-cent. winter-wheat flour, \$3.90 to \$3.95, seaboard. Manitoba flour—Prices at Toronto are: First patents, \$5.30; second patents, \$4.80; in cotton, 10c. more; strong bakers', \$4.60 in jute.

HAY AND MILLFEED.

Hay.—Baled, car lots, track, Toronto, \$12 to \$13 for No. 1; \$11 to \$11.50 for No. 2.

Straw.—Baled, car lots, track, Toronto, \$9 to \$10 per ton.

Bran.—Manitoba bran, \$19 to \$20 per ton; shorts, \$21.50; Ontario bran, \$19 to \$20, in bags; shorts, \$21.50, car lots, track, Toronto.

TORONTO SEED MARKET.

Alsike No. 1, per bushel, \$11.50 to \$12.50; alsike No. 2, per bushel, \$10.50 to \$11; alsike No. 3, per bushel, \$9.50 to \$10; red-clover seed, Ontario-grown, \$7 to \$9 per bushel; timothy No. 1, per bushel, \$1.90 to \$2.25; timothy No. 2, per bushel, \$1.35 to \$1.60.

The above quotations are prices paid to farmers for seed that has to be re-cleaned by the seedsmen.

COUNTRY PRODUCE.

Butter.—The market remains steady, supplies being quite equal to the demand. Creamery pound rolls, 32c. to 34c.; creamery solids, 28c. to 29c.; separator dairy, 28c. to 30c.; store lots, 22c. to 24c.

Eggs.—Receipts were liberal, and prices easier. New-laid, 28c. to 24c.; cold-storage, 17c. to 18c.

Cheese.—Market firm, but prices unchanged, at 14c. for large, and 15c. for twins.

Honey.—Extracted, 12c.; combs, \$2.75 to \$3 per dozen.

Potatoes.—The market remains easy. Ontario potatoes, car lots, track, Toronto, 65c. per bag, and New Brunswick potatoes, in car lots, track, Toronto, 80c. per bag.

Poultry.—Receipts light, and not equal to demand. Turkeys, 27c. per lb., dressed; geese, 18c. to 20c.; ducks, 20c. to 22c. per lb.; chickens, 22c. to 23c. per lb.; hens, 16c. to 18c. per lb.

Beans.—Broken car lots, hand-picked, \$2.60; primes, \$2.25, down to \$1.25 per bushel for inferior qualities.

HIDES AND SKINS.

No. 1 inspected steers and cows, 13c.; No. 2 inspected steers and cows, 12c.; No. 3 inspected steers, cows and bulls, 11c.; country hides, cured, 11c.; country hides, green, 10c.; calf skins, per lb., 14c.; lamb skins, \$1.10 to \$1.50; horse hides, No. 1, \$3.50 each; horse hair, per lb., 37c.; tallow, No. 1, per lb., 5c. to 6c.

FRUITS AND VEGETABLES.

Apples—No. 1 Spies, per barrel, \$4; No. 2 Spies, \$3 to \$3.50; Greenings, No. 1, \$3 to \$3.25; Greenings, No. 2, \$2 to \$2.75 per barrel; Kings, No. 1, per barrel, \$3 to \$3.50; cabbage, per barrel, \$1; onions, Canadian, 75c. to \$1 per bag; carrots, 60c. to 75c. per bag; parsnips, 40c. to 50c. per bag.

Montreal.

Live Stock.—Choice steers, suitable for the Easter trade, have been received, and owners asked as high as 7c. per lb. for them by the load. Choice steers were quoted at 7c. per lb., while fine stock was about 6c. to 6c., good being 6c. to 6c., and medium ranged all the way from 5c. to 5c., common selling down to 4c. There was some demand for old sheep, and prices ranged from 5c. to 6c. per lb. for ewes, this being an advance. Bucks and culls were quoted at 5c. to 5c. per lb., while lambs were 8c. to 8c. per lb. Some spring lambs sold at \$10 per head. Milk-fed calves were quoted at \$10 to \$12 each, and some choice, heavy calves, at 7c. per lb. Deliveries of hogs were no more liberal than the demand, and prices continued firm, at 10c. to possibly 10c., in some instances, for best, weighed off cars.

Horses.—There was a very good demand for horses. The market showed no change, however; prices steady, as follows: Heavy-draft horses, weighing from 1,500 to 1,700 lbs., \$300 to \$400; light-draft horses, 1,300 to 1,400 lbs., \$225 to \$300; light horses, 1,000 to 1,100 lbs., \$125 to \$200; broken-down animals, \$75 to \$125. Choice saddle and carriage animals were \$350 to \$500 each.

Poultry.—Choicest turkeys sold at 22c. to 25c. per lb.; ducks and chickens, 18c. to 21c. and 22c.; fowl, 15c. to 18c.; geese, 14c. to 16c.

Dressed Hogs.—Dressed hogs were in good demand, and sales took place at 14c. per lb. for fresh-killed stock, abattoir-dressed, and at 13c. for country-dressed, light weights, and at 12c. for heavies.

Potatoes.—The market for potatoes was about steady, although there seemed to have been some shading in prices, and it was claimed that Green Mountains were available in car lots, track, at 70c. per 90 lbs., while Quebec stock was still quoted at 60c. to 65c. Smaller lots were 25c. more.

Eggs.—There is little likelihood of an advance at this time of year, over present prices, while the coming of Easter will likely hold prices fairly firm. Quotations were 22c. to 24c. for fresh.

Syrup and Honey.—Old syrup was quoted at 7c. to 9c. per lb. in wood, tins being 9c. to 10c. White clover comb honey was 16c. to 17c., and dark, 14c. to 15c.; white extracted, 11c. to 12c., and dark, 8c. to 9c.

Butter.—Considerable interest was manifested in this market, this being a critical period of the year. Prices held about steady, at 29c. to 30c. for finest, in a wholesale way. New butter was not yet available.

Grain.—There was still some dealing in corn, and sales have been made here at 60c., ex store, for No. 3 yellow. Oats showed little change, selling around 41c. per bushel for No. 2 Canadian Western, store, and 40c. for No. 1 feed.

Flour.—There was no great demand for flour of any kind, and prices were steady, at \$5.40 per barrel for first patents, in bags, and \$4.90 for seconds, strong bakers being \$4.70. Ontario winter-wheat patent flour was \$5.25 per barrel, while straight rollers were \$4.85 to \$4.90.

Millfeed.—There was a very fair demand for millfeed. Prices showed little or no change, being \$20 per ton for bran, and \$22 for shorts, while middlings were \$25. Pure grain mouille sold at \$35 to \$36 per ton, and mixed at \$30 to \$33.

Hay.—The market for hay was reported to be lower, owing to the lack of demand from the United Kingdom, and as a consequence prices were down to \$13 to \$13.50 per ton for No. 1 hay; \$11 to \$12 for No. 2 extra; \$9 to \$10 for No. 2 ordinary and for clover, and \$8 to \$9 for timothy.

Seeds.—Timothy came in very rapidly, notwithstanding the fact that dealers were only paying \$3 to \$4 per 100 lbs. for it at country points. Most of the

red clover has arrived—75 per cent. of it, dealers say—and prices were still \$6 to \$10 per bushel of 60 lbs. Alsike was quoted at \$10 to \$12 per bushel.

Hides.—Spring lambs were coming in and dealers quoted 10c. each for their skins. Sheep skins were \$1 to \$1.10 each, while horse hides were \$1.75 and \$2.50 each, according to quality. Beef hides sold at 12c., 13c. and 14c. per lb. for Nos. 3, 2 and 1 hides, and calf skins at 15c. and 17c. per lb. for Nos. 2 and 1. Tallow sold at 1c. to 8c. per lb. for rough, and 6c. to 6c. for rendered.

Buffalo.

Cattle.—Prime steers, \$3.50 to \$9; shipping, \$7.50 to \$8.50; butchers', \$6 to \$8.50; heifers, \$3 to \$8; cows, \$3.75 to \$7.50; bulls, \$5 to \$7.25; stockers and feeders, \$4.75 to \$7; steak heifers, \$4.25 to \$4.50; fresh cows and springers, \$35 to \$82.50.

Veals.—\$5 to \$12.50. Hogs.—Heavy, \$9.30 to \$9.40; mixed, \$9.40 to \$9.55; Yorkers and pigs, \$9.60 to \$9.65; roughs, \$8.40 to \$8.50; stags, \$6.50 to \$7.50; dairies, \$9.25 to \$9.60. Sheep and Lambs.—Lambs, \$8.50 to \$9.25; yearlings, \$5.50 to \$8.50.

Chicago.

Cattle.—Beeves, \$7.25 to \$9.15; Texas steers, \$6.25 to \$7.50; stockers and feeders, \$6 to \$8.20; cows and heifers, \$3.50 to \$8; calves, \$7.50 to \$13.

Hogs.—Light, \$8.80 to \$9.10; mixed, \$8.60 to \$9.10; heavy, \$8.40 to \$9; rough, \$8.40 to \$8.55; pigs, \$7 to \$8.95.

Sheep and Lambs.—Native, \$6.15 to \$7; yearlings, \$7.20 to \$8.25; lambs, native, \$8 to \$9.

British Cattle Market.

John Rogers & Co. cable that Irish steers are making from 14s. to 15c. per pound.

Questions and Answers.

Miscellaneous.

Threatening Letters.

Miss A, a young lady of 24, was employed by a Mr. B in England. Mr. B was continually bothering Miss A, and would not allow her to speak to any other man. Miss A left and came to Canada. Mr. B is now writing threatening letters, telling her to come back, or he will come out and shoot her. He also sets a date, and says he will send passage-money for that date, and if she does not, he will come out.

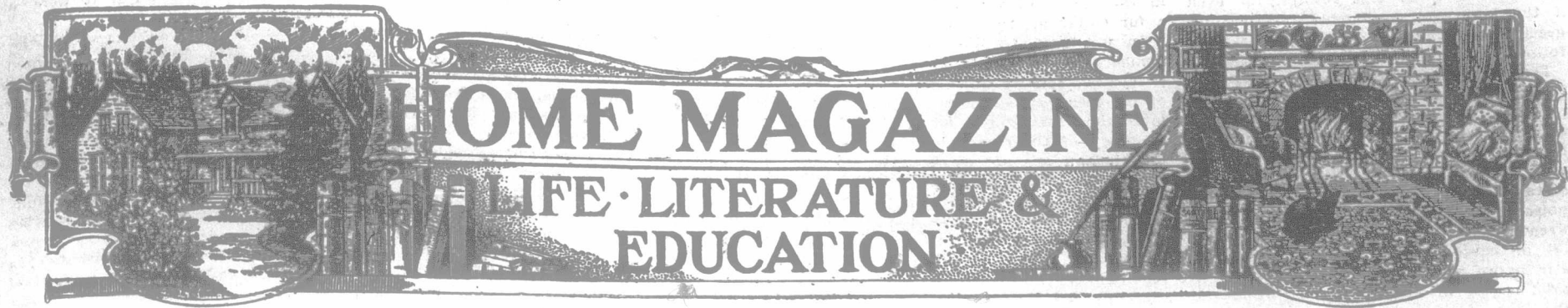
- 1. Should she go back?
2. Could he be stopped from coming?
3. Could he be arrested if he did come, before he had a chance to shoot?
4. Would there be any use in notifying any authorities?
5. Who should be notified?
6. What would you advise? Miss A cares nothing for Mr. B; and, besides, Mr. B is a married man, and has a wife and family.

AN OLD SUBSCRIBER.

- Ans.—1. No.
2. Probably, yes.
3. Yes.
4. Yes.

5 and 6. See the Crown Attorney of the county in which you reside, and hand him the letters. He would probably communicate with the Director of Public Prosecutions, or other proper authority, in England, or with the Canadian Immigration Officers; or take such other steps as might seem to him advisable and necessary for Miss A's protection. In writing her the threatening letters, B has committed a criminal offence, and is liable to prosecution accordingly.

Note.—A fee of one dollar was enclosed with this letter, thus entitling the enquirer to an answer by mail, but no name or address was given. Instead, we were requested to answer through the paper, in issue of March 13th, but said issue was on the press when the enquiry was received.



Easter Day.

Rev. Robert McIntyre, D.D.

O, the dawn of Easter morning! O, the sad, sweet day!
 When through the laughing lilies loving
 Mary went her way
 To the place where He was buried, to weep beside the tomb
 Where the cedar and the willow tree were waving in the gloom,
 And the myrtle and the almond both were budding into bloom.
 Upon her wistful forehead all the waking wonder shone,
 When she saw the gracious angel sitting on the guarded stone,
 When she heard him softly say,
 Lo! your Master is not dead, He is risen as He said,
 In the dawn of Easter morning, O, the sad, sweet day!

O, the dawn of Easter morning! O, the sad, sweet day!
 When Jesus conquered Death alone, and ended all his sway.
 List! how Magdalene is calling all the weary world to her,
 Where she holds the mingled cassia, the balsam, and the myrrh,
 And stands, with gaze enraptured, by the open sepulchre;
 See the snowy linen folded, which He never more will need,
 Hear the happy woman telling that the Lord is risen indeed.
 Now the shouting Christian may stand within that vault and sing: O, Death, where is thy sting?
 In the dawn of Easter morning, O, the sad, sweet day!

O, the dawn of Easter morning! O, the sad, sweet day!
 When we were all delivered from dominion of the clay;
 Within that burial garden how the heart grows calm,
 How the bough of cypress changes into the branch of palm,
 How the wailing requiem rises into the wedding psalm,
 Because our great Emmanuel, the grave could not contain,
 Comes back to be a comrade with His own elect again;
 In the dusky sunrise gray,
 Looks and speech are just the same,
 Calling Mary by her name,
 In the dawn of Easter morning, O, the sad, sweet day!

O, the dawn of Easter morning! O, the sad, sweet day!
 When the resurrection glory on the urn doth play.
 "Let not your heart be troubled, your place I will prepare;
 Henceforward all my blessedness my Bride will surely share,
 And she shall be beside me now, wherever I may fare."
 O, Saviour, there is nothing in Thy happy heaven above
 Which we desire a portion in, so much as in Thy love.
 Oft hast Thou heard us pray,
 Eloi! when all the race is run, welcome us with Thy "well done,"
 In the dawn of Easter morning, O, the sad, sweet day!
 —Zion's Herald.

Eggs and Their Symbolism

[A paper given at the Teeswater branch of the Women's Institute, by Mrs. F. P. Moore.]

My subject is a rather prosaic one,—not much chance for "frills" or imaginary soaring,—and for that very reason all the more difficult to treat entertainingly. I am not even giving you any new cooking recipes, for they are to be had in abundance elsewhere, but I have

gathered some facts here and there which I trust may prove interesting.
 The egg is one of the few things in the world original and positive in itself. Though some specimens are round, and some oblong, the usual shape cannot be decided by words applicable to other objects. The size of the egg has long been a standard of measure, and its specific gravity a test for solutions. The first watches were egg-shaped, and from their origin in that city were called Nuremburg animated eggs.
 The nine thousand varieties of known birds, furnish every shade of color in eggs. This is a device of nature for their protection. Birds whose nests are covered lay white eggs, while in open fields or on the sand, the eggs are colored like surrounding objects. Eggs of

been thought potent aids in witchcraft. Irish and French nurses used to teach children to push their spoon through the shell after eating contents, "to keep the witches from making a boat of it." Eggs laid on holy days were supposed to possess helpful qualities against all ills. Scotch fishermen used to think it unlucky to have eggs on board their boats, as "they would bring contrary winds."
 An English superstition is: "If eggs leave the house after dark they will bring ill-luck."
 Eggs figure very prominently in Easter customs in different countries. In Christian lands, they are symbolical of the Resurrection. In France, hens' nests were formerly ransacked for the largest egg for an Easter tribute to the king.

make even an ungainly hen like many heroines in novels, not beautiful, but interesting." Many people who have kept hens for half a life-time, could claim a kindred spirit in the writer of the lines:

"Well, drat them hens! when eggs is cheap
 They lay the hull place ankle deep;
 Just keeps me lame a-steopin' round
 A-pickin' eggs up off the ground.
 But drat them hens! when eggs is dear,
 They sit around for half a year,
 Eatin' my wallet to its marrow,
 With no more conscience than a sparrow;
 Indulgin' in a conversation
 On every subject since Creation,
 Exceptin' 'eggs an' how to lay 'em,
 Makes me so mad I want to slay 'em."

There does seem to be a perversity about hens sometimes which could almost be thought diabolical, but if the matter was sifted, it would probably be found that haphazard methods obtain regarding their food and general care,—but "that is another story, my subject today being "Effects," not "Causes."

Eggs are especially rich in protein, which is the nitrogenous or mineral salt ingredient of food. This material is required by man to build and repair the tissues of the body. Some energy is also furnished by protein, but fats and carbohydrates (or starch and sugar) supply the greater part of the total amount needed. When eggs, meat, fish, cheese, and similar foods, rich in protein, are eaten, such other foods as bread, butter, potatoes, etc., are served at the same time, the object being, even if the fact is not realized, to combine the different classes of nutrients into a suitable diet.

The custom of ancient Eastern shepherds, was to place a raw egg in a sling, then whirl it round and round until the heat produced by the rapid motion cooked it. From this primitive method, to the elaborate concoctions of modern cooks (who even use perfumes of flowers as flavors for omelets, etc.), there is a great advance. For many of these variations we are indebted to experiments of French cooks, who, by changes of sauces and seasoning, could serve eggs in a different fashion every day in the year.

Eggs were once thought to be hard to digest. Possibly this was the result of the articles with which they were combined. Dr. Arbutnot, Pope's friend, said: "Eggs are perhaps the highest and most nourishing of all animal food, and the most indigestible." Experiments of a later date prove, however, that an egg is digested, usually, sooner than a potato, and quite as soon as beef or mutton. One noted authority (Jorissenne), discussing the digestibility of eggs, states that he regards the yolk of raw, soft-boiled, and hard-boiled eggs, as equally digestible. The white of soft-boiled, being semi-liquid, offers little more resistance to the digestive juices than raw white. The white of a hard-boiled egg is not generally very thoroughly masticated. Unless finely divided, it offers more resistance to the digestive juices than the semi-fluid white, and undigested particles may remain in the digestive tract many days, and decompose. From this deduction, it is obvious that thorough mastication is important. Artificial digestion experiments have been made on the effect of beverages on the digestibility of a number of foods, including raw and cooked egg-albumen, which led to the deduction that tea, coffee and cocoa, retarded somewhat the digestibility of the nitrogenous constituents of eggs, although the effect was less marked with coffee than with the other beverages. Water did not have this effect. Though interesting in themselves, too wide application should not



An Easter Lily.

some sea-birds are covered with a glutinous substance to prevent their slipping off the rocks.

There are many myths and superstitions regarding eggs. The Jews found in them a symbol of bondage and wonderful deliverance, and used them as a type of their departure from Egypt, and they appeared on the Passover table. Modern Jews still use them at their Passover Feast as an emblem of the rolling fate of Israel. The peculiar shape of the dome of the Mohammedan mosque is regarded as a vestige of the early egg-worship.
 Eggs, and especially their shells, have

Different countries have egg games. Even the Americans have a custom of rolling eggs on the lawn at the White House, Washington, at Easter-time.

The egg industry is one of considerable moment in recent years, and Madame Hen is a personage of much importance these days; indeed, could she know her value, she would probably—after the manner of a certain other small-headed member of the feathered tribe—strut.

Gail Hamilton remarked: "The relation of a hen to a dozen fair, white, pure eggs, and the relation of those eggs to puddings and custards, and the 25 cents which they can have for asking,

be made of these test results, for even if the beverages mentioned retarded digestion somewhat, it does not necessarily follow that the thoroughness was altered.

The commonness of the egg makes it valuable as a medicine sometimes. A raw egg, swallowed at once, will detach fishbone which has been lodged in the throat. Whites of eggs taken immediately after certain poisons, such as salts of lead, mercury, copper, and acid poisons, will render them harmless. A French method of administering cod-liver oil or castor oil is, first to warm it, stir in an egg, cook slightly, flavor with salt, sugar, or acid jelly. (I wonder if the idea is that by the time all this is done you can cheat yourself into believing it is some delicacy you are preparing, and so take it under that impression.) The egg is considered valuable in typhus and typhoid fevers. Taken raw, it forms a slight coating over the stomach and other organs, and by its soothing qualities reduces inflammation. It is also recommended for children with irritable stomachs.

A well-known physician says that many lives are lost by starvation, owing to an over-estimate of the nutritive value of beef-tea and meat-juices, but that there is no good substitute for milk and eggs.

An English physician adds this word: "In cases of depression, where disordered working of the brain tends to exhaust the strength, I rely more and more upon milk and eggs made into liquid custards. Sixteen eggs daily are given with good results."

Nothing will sooner relieve a feeling of exhaustion than a raw egg beaten in a glass of milk sweetened and seasoned to the taste. Such a drink furnishes more real energy than tea or alcoholic beverages, and without their evil effects. Many a tired woman would be better for it. Eggs may also be served in tea, coffee, lemonade, or hot broth, in the same fashion.

The egg white being constipating in effect, the yolk laxative, the latter is considered helpful in jaundice, and similar diseases, on account of the oil it contains, while the white is beneficial in ailments opposite in nature.

Physicians object to excessive beating of eggs for invalids, since, if much air be mingled in them, it may give rise to gas on the stomach, but if slightly beaten, the solidity of the egg being broken, the gastric juice can work upon it more freely. Either white or yolk alone will digest sooner than if taken together.

The object in beating eggs much in cooking is to incorporate air with them, and this is lost if left standing after the beating process. Owing largely to the high price of eggs, baking powders have in a great measure superseded them, and our food and stomachs have suffered in proportion.

Letters From Abroad

IV.

ON MEDITERRANEAN SHORES—THE CATTLE FAIR.

Taormina, Sicily, Feb. 2nd, '13.

Oh, Jean, how I wish you had been with us yesterday! We had such an uproarious time. I haven't laughed so much for ages. The occasion for the outburst was the Cattle Fair at Letojanni, a little sea-coast village that looks about a stone's-throw from Taormina, but is really an hour's drive.

The day was heavenly,—just the sort the guide-books describe when trying to catch tourists from the frigid North.

We took back all the unkind things we had said about Sicily during our first wet week here. We started to the fair early in the morning in an ancient Sicilian bone-shaker that must have had a B. C. date on it somewhere, but even the discomfort of being jammed into a springless, flea-infected vehicle, could not dampen our spirits. We fairly bubbled with joy. As we zigzagged down the mountain-side, every turn of the road gave us a new sensation and unfolded a new picture.

The villas we passed were brilliant with flowers; the gray rocks along the roadway were tufted with gay patches of emerald; the Mediterranean was dazzling sapphire, and Mt. Etna's white cone gleamed like a mammoth pearl in the sunlight.

And, remember, Jean, this was the first of February! I thought of you

in the clutch of winter in Canada, with a fur collar up to your ears.

On the way to the village, we met numbers of peasants returning with their purchases, and we wondered why so many of the men carried rifles. We found out later that they did it for self-protection, as many of them have long distances to travel, and are apt to be attacked and robbed on their way home. Brigands are still in existence in this country.

Some of the groups we passed looked exactly like the highly-colored prints of the "Flight into Egypt" in Uncle John's big Family Bible—the one that was always on the red mat beside the album, on the center-table in the parlor. Don't you remember how we used to gloat over its pages on wet Sunday afternoons

The short street in the village was crowded with people. Down both sides of it were temporary booths, filled with every gimcrack article dear to the Sicilian's heart—crockery, tin pans, baked beans, brges, umbrellas, cheap jewelry, etc. While we were standing in front of a doorway, a harmless-looking canvas bag on the top step was suddenly seized with frightful convulsions, and began heaving and squirming in the most unaccountable and reckless manner, displaying a suicidal tendency to take a header down the steps. Several times it was rescued by a farmer's wife, who seemed to regard it with a proprietary air. Our wonder as to the cause of this strange behaviour on the part of an innocent-looking bag was ended when we

application of water as if it were a deadly poison.

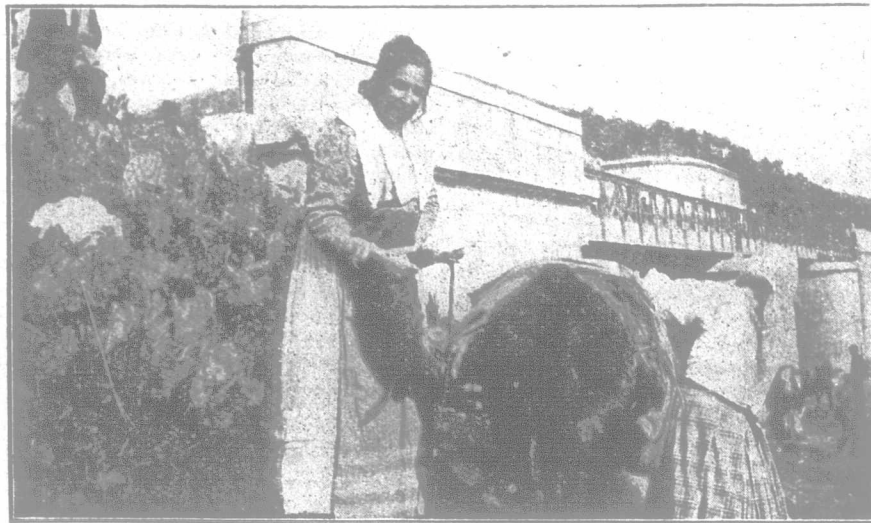
While Miss Morris was bargaining for some baskets, Mrs. Russell and I poked around with our kodaks, chasing up pigs in panniers, and other comical things we saw.

The enclosed photo of a woman putting a protesting pig into a pannier is one of the results. The woman on the other side of the donkey has successfully achieved the operation, and got her pig in.

I tried hard to get a snap-shot of a dear little long-eared kid hanging out of a pannier, but at the supreme moment it always wriggled round and presented the back of its head to the lens. Over and over again, the donkey boy turned its face to me, but it persistently refused to be taken. Finally he plunged his hands into the depths of the pannier and dragged up—another kid. It was as surprising as a ledger-demon show when the Great Wizard of the North pulls rabbits out of his hat. The resulting snap-shot, however, was not satisfactory, as the two kids got so inextricably entangled that the print looks like an advertisement of a two-headed freak in a circus. I have rambled on so about the Cattle Fair that I haven't room for anything else. But I wanted to tell you about it before the picture faded from my mind. Arrivederci (as the Italians say for good-bye).

LAURA.

[A correction: Needless to say, the word "years," which appeared in the first line of last week's "Letters," in some of the papers, should have been "days." Laura, we are pleased to say, was not in the doleful dumps for three "years."]



The Cattle Fair.
Woman putting pig in pannier.

while Uncle John was snoozing away in his arm-chair? What jolly times we used to have at the old farm!

The nearer we got to the village the more lively and interesting the road became.

It was a continuous Sicilian cinematograph of absurdities. We wished we had eyes all around our heads, so we wouldn't miss anything.

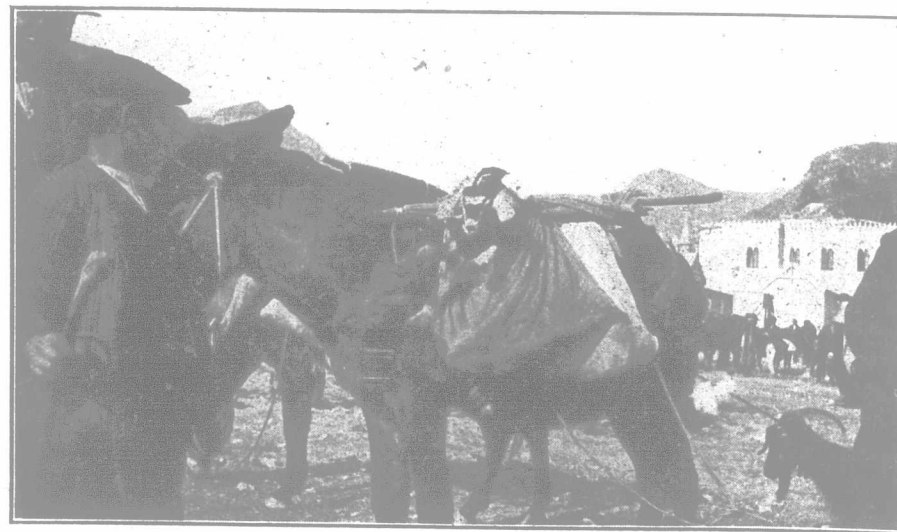
"Look, look!" cried Miss Morris excitedly, pointing to a donkey that was passing.

We looked—and what do you think we saw—and heard. A little black pig in a donkey's pannier, grunting disapprovingly at the method of transportation.

We shrieked with laughter, and from that time on we went from one spasm to another. Such ridiculous combinations did we pass—goats, mules, or don-

heard a familiar grunt coming from the interior. We knew then that a discontented and enraged piglet (what do you call little pigs?) was imprisoned within. We stood in front of those steps and watched the gyrations of that bag, and laughed till we fairly gasped for breath. We attracted so much attention that a ring of gaping rustics formed around us and gazed at us open-mouthed. All at once the bag gave a violent flop, followed by an angry grunt, and then all was still. Piggie had given up the fight for freedom.

We pushed through the throng and went out on the beach to see the cattle. They were very disappointing. Viewed from a distance, they made a pretty picture scattered over the white beach, with a foreground of blue sea and foamy waves, and a background of white cot-



The Cattle Fair.
Two kids in one pannier.

keys, tied together by the legs; pigs and kids and turkeys in panniers; cattle and pigs being driven and being carried by feet, and always the ubiquitous donkey plugging along half-asleep, quite indifferent as to the size or quality of his load. One happy family we passed consisted of a woman and baby on the donkey; a kid in one pannier gazing longingly and bleating sadly for its mother, who was tied to the donkey's hind leg, a mangy cur trotting along on the other side at the end of a rope, and a man walking with a rifle on his shoulder to protect his property from marauders.

tages and high mountain peaks. But a closer inspection proved them to be a dirty-looking lot.

If Jack could see them, his nose would turn up so high with disgust that it would never again regain its proper shape. But a volcanic country, with rocks and cacti for pasture to load of lemon-skins, often is not a good breeding-place for blue-ribbon cattle. I suppose the fact that there is lots of sun in this country, and that its rays are a strong disinfectant, is the only thing that keeps disease at bay. For man and beast seem to avoid the common

Hope's Quiet Hour.

Clear, Shining after Rain.

AN EASTER MESSAGE.

He shall be as the light of the morning, when the sun riseth, A morning without clouds; When the tender grass springeth out of the earth.

Through clear shining after rain.
—2 Sam. xxiii.: 4 (R. V.).

When Job was crushed and bewildered by sudden and unexpected sorrow, one of his friends tried to comfort him by saying: "Man is born unto trouble, as the sparks fly upward." It is not in the least consoling to hear that trouble is the common lot of all men; though it is inspiring to hear how others have been victors in the midst of pain. Only a coward would desire to live out his life on earth without any pain or difficulty. No soldier worthy of the name wants to loaf about in a barrack-room, while his comrades are facing the enemy or bravely enduring hardships on active service.

And yet the words of Eliphaz the Temanite, who came to mourn with his afflicted friend, only tell half the truth. The Psalmist had a more complete vision of man's destiny when he said: "Weeping may endure for a night, but joy cometh in the morning. . . . Thou hast turned for me my mourning into dancing: Thou hast put off my sack-cloth, and girded me with gladness."

Even Job, who suffered so much, came out into the clear shining after rain; for "the LORD blessed the latter end of Job more than his beginning."

God's way of reckoning time—which is still the Jewish custom—is to make each day lead up from darkness into light: "The evening and the morning were the first day," and no day of ours is really finished until the morning joy has come. As Ella Wheeler Wilcox reminds us:—Nothing is ever settled until it is settled "right."

On the first Good Friday—that darkest hour earth has ever known, which yet we call "good"—the friends of Christ were utterly despairing. They had set all their hopes on this Man, and he seemed to have failed them utterly.

Isaiah (xxii.: 20-25) speaks of a servant of God who shall be fastened as a nail in a sure place, and on him shall hang all vessels of his father's house, from the vessels of cups even to all the vessels of flagons. On his shoulder shall the government rest, and he shall be a father to his people. Our Lord (see

Rev. iii. 7) claims to be this promised Ruler. But, if you read carefully the account of Eliakim's life, as given by Isaiah, you will think that it ended in a terrible disaster. The nail, on which all the glory of his father's house hangs, shall "be removed, and be cut down, and fall; and the burden that was upon it shall be cut off."

Those words exactly fitted the awful despair of Good Friday. To whom could the broken-hearted disciples turn? They had found One perfectly holy Master, and when He had fallen them—or so it appeared—they knew that no one could ever take His place. That was the evening. If we saw the sun go down for the first time, and did not think it could ever rise again, we should be hopeless, too.

We know how short the night of despairing heaviness proved to be. Their Master had told them He would rise again, He had given them the comforting assurance that joy would surely come in the morning; but faith seemed to have no foundation of possibility to rest on, and their faith had as yet no wings. How could they trust and hope when their Sun had set and all the world was dark?

If you are ever inclined to be hopeless, if you think that there is no possible way out of your present troubles, remember—

"That Calvary and Easter Day,
Earth's happiest day and heaviest day,
Were but one day apart."

We can endure patiently, trust triumphantly, and hope gloriously, if we are sure that the steadily-darkening gloom of our sorrow is only like the short darkness of evening—a darkness that is leading swiftly on to the joy which cometh in the morning.

"Who could wonder or misdoubt,
When God's great sunshine finds him
out?"

Do you realize the power of sunshine in keeping our bodies healthy? A few minutes ago a trained nurse told me that almost any germ of disease would die if exposed to direct rays of sunshine for twenty minutes. As sunshine is in the physical world, so joy is in the spiritual world. If you want to help the souls of others, don't copy the friend of Job, who talked sadly about the inevitableness of trouble; but go out, with joy in your heart, and a radiant face, looking hopefully in every kind of storm for the clear shining of sunlight, which will most certainly come after the rain has done its work.

Easter comes very early this year, but—even if the earth shows few signs of life—we know that the tender grass will soon come springing joyously up, and that the clear shining of the summer sun will follow the necessary rains of early spring. We know that the dull and stormy days will soon pass, that the ice and snow of winter will vanish in the warmth of the sunshine. It is exactly the same with our troubles. No matter how terrible and inexplicable they may seem at present, they certainly will not last. Sorrow is transient, joy is eternal. Christ endured death for a very short "three days," but He is alive for evermore.

One day last week I was talking to a young girl in the hospital who had just begun to walk again after a very serious operation. She was very downhearted, having spent nearly all her money, and feeling much too weak to go out and earn more at present. I told her that a reader of "The Farmer's Advocate," who called herself "Another Country Woman," had sent four dollars to bring sunshine to someone in darkness, and I thought God had intended it especially for her. I am sure the kind giver would have felt well repaid if she could have seen the clear shining after tears in the eyes of that young girl. She left the hospital yesterday, going out with new ideals of a life of kindness and helpfulness, inspired by the kindness she has received from strangers during her illness.

Joy is our birthright, and it is also our duty. We dishonor our Master when we sorrow, as those who have no hope, over anything. Easter joy is not like the joy of one who is untried in the ways of sorrow. It is the joy of one who

has gone down into the depths and has risen again; the joy of one who knows that the sufferings of this present time are not worthy to be compared with the glory of the sunrise which lies ahead—which may even now be very near. The darkest hour is only one sign that dawn is soon coming.

Let us try to turn away our thoughts from our own troubles, fixing our eyes on Him Who is both the Morning Star and the Sun of Righteousness, then we can never walk in the darkness of gloomy thoughts, nor bring gloom to other people. Our prayerful song should be:

"Thy glory alone, O, GOD, be the end of all that I say;
Let it shine in every deed, let it kindle the prayers I pray;
Let it burn in my innermost soul, till the shadow of self pass away,
And the light of Thy glory, O, GOD, be unveiled in the dawning of day."

DORA FARNCOMB.

ANSWERS TO "COUNTRY WOMAN."

Mrs. P. T. Eastman, Gelett, Ont., says she would be very grateful for any good reading. One correspondent says that

The Roundabout Club

[Study II. concluded.—"The Greatest Movement in the World To-day."]

The Regeneration of China

(A prize essay.)

It is a little more than a year since the world at large awoke to the fact that a mighty movement was on foot in China—a movement comparable with the French Revolution, in potentiality, though, happily, not in bloodshed. From a small beginning, the rebellion against the ruling dynasty spread, with astonishing rapidity, over the whole of China proper. In a very few months the degenerate Manchu dynasty had come to an end, and a Republic, modelled on that of the United States, had been established, with the great leader of the movement, Dr. Sun Yat Sen, as provisional President. But the formation of the Chinese Republic was neither the beginning nor the culmination of that great movement, which directly involves almost one-fifth of the human race, and which will eventually bring a new and powerful factor into world politics.

new nation, a new power, which all people's should respect.

Foremost among these was Dr. Sun Yat Sen. For years he toiled hard and unnoticed, as he went from place to place, teaching the doctrine of freedom. At last his plans were mature, and then came the revolution, the abdication, and the Republic, which makes possible the complete regeneration of China.

But it must not be supposed that the work is complete, or nearly so. It is not to be expected that a whole nation will, at once, leap from darkness into light, or that a people, for generations ruled despotically, can quickly become a modern democracy. Yet, with the precedent of Japan before us, we may confidently expect sudden and marvellous changes in old China.

And who can gauge the possibilities of this new Republic, when once it has come to its own? With its vast resources of soil and mine, and, above all, of men, it may well rival any country on the earth to-day, and become a new balance of power among the nations. Whether its power will be exerted for good or ill, for peace or war, is one of the most momentous questions for the future. However this may be, one thing is certain, China is awake, and can never again be regarded as a negligible factor.

"DUNDEE."

"WHAT IS THE GREATEST MOVEMENT IN THE WORLD TO-DAY."

(A prize essay.)

Why, the "Women's Movement," to be sure. The step that women are taking to gain the place where they ought to be, beside the men, as equals, and not inferiors. A movement that will be for the good of all humanity in everything that pertains to the social and moral welfare of the race. As yet, this movement is only in its infancy, but the child is strong and sturdy, and will soon grow into the stature of a man or woman.

In the Christmas Number of "The Farmer's Advocate" a few years ago, this verse appeared:

"I hear the tread of pioneers,
Of nations yet to be,
The first faint wash of waves, where soon
Shall roll a human sea."

This was prophetic, as far as the West was concerned, and I feel that it will be the same with the women's movement. In a sense, it is only the first faint "wash" of the waves we hear, but the billows are gathering in strength, and the surge of the same will soon be breaking all along our shores; yes, and other shores. In fact, all the shores of the world. At the convention held last fall in Toronto, Mr. Putnam said to the members of the Women's Institute, after telling how they had grown in numbers, "Now, see, and don't let it be a 'splash.'" Why, however could the man think it would be a splash, after being with us all those years? No, our Institute is more like a stone thrown on the water, from which the ripples spread, and spread, and still continue to spread.

When I first thought of the "Women's Movement," it was of the Institute I thought, with its twenty thousand members in Ontario alone. At first it was only Provincial, but now it is for all Canada, and has gained a strong foothold as far west as British Columbia. Then I thought of the National Council of Women all over the world, and all the other organizations that are affiliated with them. Truly, we have reached goodly proportions already.

I am not taking into account militant suffragettes, but quite, sane, sensible people, who want to see everything done decently and in order, who don't want votes for prominence and display, but for the benefits they will bring to themselves and their families. That was a grand article of Mrs. Dawson's, in the Christmas Number, "The Hand that Rocks the Cradle." It is too true that many who are rocking cradles to-day do not know what they may be rocking them for, and who have no power to alter conditions or make them better than what they are; but all that will be changed in time—that, and many, many other things—when the woman comes into her own. Agnes Knox Black said, three years ago, at the time of the International Congress (I think I hear her yet): "The history of woman,



Dr. Frederick F. Freidmann.

[The German physician and scientist, who has discovered a serum for the cure of consumption. During the past fortnight he has treated scores of cases in Montreal, Ottawa, Toronto and London, before large audiences of doctors, nurses, and prominent men. His discovery, if successful, as it promises to be, will mark Dr. Friedmann as one of the greatest men of the century. Copyright of photo secured from Underwood & Underwood, N. Y.]

if anyone has magazines to give away, and will write to Lillian Laurie, Free Press, Winnipeg, she will supply the names of mothers who are lonely, and have no means to get reading matter. This correspondent also says: "I would love her to send some 'Farmer's Advocates,' as the Quiet Hour has helped me so much." Another correspondent suggests that reading matter might be sent to hospitals, or given to clergymen for distribution among the sick and aged. Another suggests the Sanatorium at Byron, Ont., and also says that if they are sent to Mr. Saunders, City Hall, London, he will forward them to some of the lonely construction and lumber camps.

HOPE.

Diamond Dyes Saved Her Suit

"I know you will be interested in my experience with Diamond Dyes."

"Last fall I was in a serious dilemma. I had bought a light brown suit, which soiled so easily that I determined to dye it a darker color. I purchased a package of Diamond Dyes. The druggist had told me this would dye any kind of material, but as I had never dyed anything before, I thought it would be well to test it with a small piece of the cloth.



Light brown suit dyed black

"This little precaution saved my suit. The sample came out of the dye so streaky that I knew something must be wrong. Fortunately just then a friend called to tell me that she had changed the color of her sweater suit—a white sweater and a white serge skirt. She dyed the sweater gray and the skirt black. When I told her how unsuccessful I had been, she said she knew what the difficulty was and told me to ask for Diamond Dyes for Wool.

"I went at once to another drug store and this time I got a package of Black Diamond Dyes for Wool. To be absolutely sure then I again tried a small sample first. The results reassured me, and I found that the suit could be dyed perfectly, with the proper dyes. My suit looks as new and fresh now as when I bought it, and the color is far more becoming."

Hundreds of careful housewives have learned how to make Diamond Dyes help them to buy little luxuries that they could not otherwise afford.

When they see something they want especially, like a pretty new hat or a pair of smart dress shoes, they look over their old dresses and wraps and they usually find that, by recoloring one of them with Diamond Dyes and making it over, they can save enough to pay for the hat or the shoes or both.

In this way they manage to dress beautifully and without making a real sacrifice at all.

For, after you dye the material a new and fashionable shade, it is as good as fresh, new goods right out of the store. And it is lots easier to dye it than to go around and shop for new goods.

With Diamond Dyes, it's so easy to give things a new color that you will want to recolor not only your clothes but things for the household as well. Rugs, portieres, curtains, feathers, etc., can be made as bright and fresh as new.

And each time you do this you save some money—money that you can use for other things for yourself or the children, or with which you can buy some new piece of furniture that you have been wanting.

Diamond Dyes

Buy a package of Diamond Dyes to-day. It will cost but 10c at any drug store. Tell the druggist what kind of goods you wish to dye. Read the simple directions on the envelope. Follow them and you need not fear to recolor your most expensive fabrics.

There are two classes of Diamond Dyes—one for Wool or Silk, the other for Cotton, Linen, or Mixed Goods. Diamond Dyes for Wool or Silk come in blue envelopes. Diamond Dyes for Cotton, Linen, or Mixed Goods come in white envelopes.

Here's the Truth About Dyes for Home Use

Our experience of over thirty years has proven that no one dye will successfully color every fabric.

There are two classes of fabrics, animal fibre fabrics and vegetable fibre fabrics.

Wool and silk are animal fibre fabrics. Cotton and linen are vegetable fibre fabrics. "Union" or "Mixed" goods are 60% to 80% Cotton—so must be treated as vegetable fibre fabrics.

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 woolen goods use one class of dye, while manufacturers of cotton goods use an entirely different class of dye.

Do Not Be Deceived

For these reasons we manufacture one class of Diamond Dyes for coloring Cotton, Linen, or Mixed Goods, and another class of Diamond Dyes for coloring Wool or Silk, so that you may obtain the very best results on EVERY fabric.

REMEMBER: To get the best possible results in coloring Cotton, Linen, or Mixed Goods, use the Diamond Dyes manufactured especially for Cotton, Linen, or Mixed Goods.

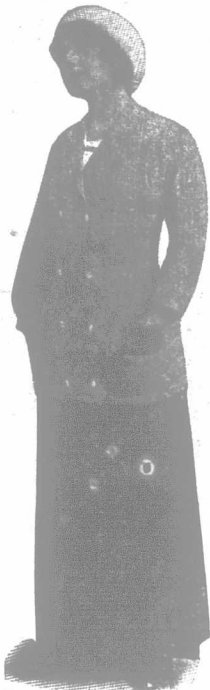
AND REMEMBER: To get the best possible results in coloring Wool or Silk, use the Diamond Dyes manufactured especially for Wool or Silk. Diamond Dyes are sold at the uniform price of 10c per package.

1913 Diamond Dye Annual Sent Free

This book is full of dress secrets, how to do almost magical things about the home, etc., etc.

Send us your dealer's name and address—tell us whether or not he sells Diamond Dyes. We will then send you this famous book of helps, the Diamond Dye Annual, a copy of the Direction Book, and 36 samples of Dyed Cloth—Free.

WELLS & RICHARDSON COMPANY, LIMITED
200 Mountain Street Montreal, Canada



White sweater dyed gray—white serge skirt dyed black

is the history of the world." Well, that is, to a great extent, true. Men will do a lot to please us women, sometimes because they fear us; sometimes they might fear an uncomfortable time if they did not do as we wished, and sometimes we might even lead them to believe they are doing as they wish themselves, when it has only been suggested to them.

Man has been supposed to be the head long enough, but in very many instances woman has been the neck that turned the head. Influence has done a great deal, but the time is coming, yea, is now at our very doors, when we must have a change. Woman was put into the world as an equal, and a helpmeet for man. She is a rational being, she can think and act for herself, and is doing it. Hence, this "Woman's Movement." She has been a long time in beginning, because man has been the stronger, and has kept her back, but the days of strength and brute force are gone, and it is brains that count nowadays. The work that in by-gone days needed strength, can now mostly be done by machinery, but brains are needed to start that machinery and keep it going, and, whereas, when machinery was invented at first (such as engines and watches), it was clumsy and crude and bulky, but later on it was made smaller, and neater, and more improved, and more useful, so it was with man and woman. The big machine is not always the most capable of doing the work, the little engine, in its own place, can do as much as the big Mogul, and it is the little tug that draws the liner into port. I think I need not say any more. The inference is complete. If the brain of a woman weighs a little less than that of a man, as some authorities say, its ability to work is just as great. The one was made to supplement the other, and both are needed, and till they both work together, the plan that was first intended is still incomplete. MRS. W. BUCHANAN.
Grey Co., Ont.

NOTE TO "WESTER."

"Wester" neglected to send his address with his competition letter. Will he kindly send it at once so that his prize may be sent to him?

The Mending Basket

Does It Pay?

In reading "The Farmer's Advocate," I noticed a piece headed, "Is Marriage a Failure?" and I wish to say that woman was a hero. Does it pay to be kind to your wife? I say yes. I can say from my own experience that I have only met one woman that did not respond to kindness. I am not saying that every woman can be made happy by her husband being kind to her, but the majority would be happier by the man thinking for the comforts of his wife, and the wife for those of her husband. I have found that a woman is naturally affectionate, and naturally looks for her husband's love, and a few kind words, and to see that he is pleased with what she tried to do for him. Yes, men, it pays to be kind to your wife, and mother, and sisters. A. S.
Parry Sound, Ont.

Evidently A. S. would not agree with the Italian of whom Thomas Augustine Daly (the poet who is to the Italians of America as our Dr. Drummond was to the "habitant") speaks, in the following:

THE WEDDING ANNIVERSARY.

Eef, mebbe so, you gotta wife
Dat's good as mine to me,
You weell be glad for mak' her life
So happy as can be.

Las' fall Carlotta tak' my han'
An' maka me so happy man;
Wan year to-day she ees my mate,
An' so to-night we celebrate.
You theenk I would forgat da day
Dat pour sooch sunshine on my way?
Ah! no, I gona lat her see
How kinda husband' I can be;
How glad I am she ees so true,
How proud for all da work she do,
Un' so for mak' her work for me
More easy dan eet use' for be,
An' show how mooch my heart ees stir'
I buy a leetla geft for her.

Carlotta got so pretta hair,
I buy her som'theeng nice for wear—
Eh? W'at? Oh! no, ees notta hat;
Ees som'theeng mooch more use dan dat.
Eef's leetla pad, so sof' an theeck
An' stuff' weeth wool, dat she can steek
On top da hair upon her head,
So lika leetla feathra bed.
Eet sure weell mak' her feela good
W'en she ees carry loada wood;
An' mebbe so eet halp her, too,
For carry more dan now she do,
So mooch weeth' love my heart ees stir'
I buy dees leetla geft for her.
Eef, mebbe so, you gotta wife
Dat's good as mine to me,
You, too, would try for mak' her life
So happy as can be.
—T. A. Daly, in "Madrigal."

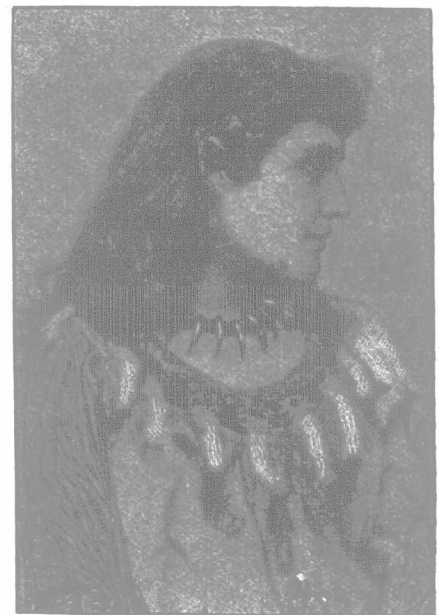
The Ingle Nook

[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.]

Pauline Johnson.

(TEKAHIONWAKE).

Dear Ingle Nook Friends.—Was it not so that a few of you heard, last week, of the death of Pauline Johnson with a sense of positive pain? In a peculiar sense she was ours. More American



The late Miss Pauline Johnson.
(Tekahionwake)

than you or I was she—on her father's side a princess, sprung from the aboriginal tribes of our continent—yet, too, was she connected with us through her British parentage, for her mother was of the line, one of whose scions is the venerable William Dean Howells, the veteran writer, last of that famous New England group which numbered Emerson and Thoreau, Whittier and Bryant, Lowell and Holmes, Hawthorne and Longfellow, and, less closely, Poe and Mark Twain.

In another sense, too, is Pauline Johnson peculiarly ours—"is," because those who have expressed their souls on the written page do not die: Canadian of Canadians was she, child of the wild nature that we have learned to love, and love but the more as it drifts off and off to make way for fields that suggest the money god rather than Pan and the dryads. Listen to her cry, and say if you have never once felt as did she in those sublime moments:

"Let me but wander on the shore night-stilled,
Drinking its darkness till my soul is filled;
The breathing of the salt sea on my hair,
My outstretched hands, but grasping empty air.
"Let me but feel the pulse of Nature's soul
Athrob on mine; let seas and thunders roll
O'er night and me; sands whirl; winds, waters beat;
For God's gray earth has no cheap counterfeit."



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There is no better form of Insurance for the farmer than a Bell Telephone.

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Read "The Song My Paddle Sings," "Shadow River," "The Camper," and say whether Pauline Johnson is not ours, more than American, more than Canadian,—child of our forests and our rivers, proud with the pride of those first kings of our soil:

"And few to-day remain;
But copper-tinted face and smouldering fire
Of wilder life were left me by my sire
To be my proudest claim."

On a memorable day I had the honor of meeting Tekahionwake. The occasion was a Collegiate Conversazione, many years ago, and I can see yet the bevy of us, half a dozen girls in long, white tableau dresses and silk scarves, crowding about the little figure in Indian dress in our improvised "green room." She smiled at us, and chatted with us, and very proud indeed were we. In the first part of the programme she had worn white satin, and high-heeled yellow slippers, which we touched later as though they had been Cinderella's own, and she looked quite tall, but as she stood among us, in the moccasins and fringed buckskin of her ancestors, we had to look down to meet her eyes; a little sprite of the forest indeed she seemed, scarcely at home in that green room, but one had only to close one's eyes to see her adrift on the river, in her canoe, floating "like a yellow leaf in autumn," a spirit of the wilds, "more expert with a canoe," as she has been described, "than any other woman in the world."

For many years Pauline Johnson was a public reciter, reciting invariably from her own works. The first time she appeared thus was before the Canadian Society of Authors, in Toronto, in 1891.

In 1894 she made her first visit to England, where, as "the" talented Indian princess, she made a great sensation, as did also her first book, "White Wampum," published during that year. Subsequent books were, "Canadian Born" (1903), a collection, "Flint and Feather" (1912), and her one prose volume, "Legends of Vancouver,"—the last of the dreamy, passionate, Pandean outpourings of her pen.

Her closing years have been—as have those of many a child of genius—years of poverty, and pain, and proud distress. Death has been a blessed release, but grandly characteristic of her was her request that her body be cremated, and the ashes deposited on Seawash Rock, where "winds and waters beat."—A child of Nature in life, a child of Nature in death.

MUSHROOM-GROWING.

Dear Junia,—Being a farmer's wife, and anxious to make a little extra pocket-money, I have been wondering whether I could make a success of mushroom-growing.

I have read instructions in seed catalogues and other papers, and it seems easy, but I would like to know if anyone else has found it practicable, and how best to proceed, and where to grow them. Thanking you in advance.

Halton Co., Ont.
Unquestionably, some people have made a success of mushroom-growing, but just as unquestionably the majority who have tried have failed. The crop seems to be very uncertain. I have in mind a friend who had excellent success for two winters. This winter he paid a fancy price for spawn that was recommended as extra good,—and did not have a mushroom. He says the book that helped him most was "Mushroom Culture," published by the American Spawm Co., St. Paul, Minn. Perhaps someone who reads your query, and has had practical experience, will write us.

By the way, how your non-de-plume carries one back, back over the centuries to the bishop whose influence was "of saintliness rather than of the intellect." How did you happen to think of it?

QUESTIONS RE FASHIONS.

I have received several letters, chiefly from very young girls, asking how to have dresses made. To these little lassies I must say, please watch the fashion pages, and choose from them.

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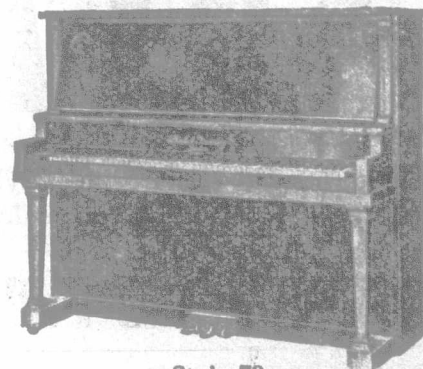
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Will Wash a Tub Full in Five Minutes



If it has been taking you a half day or more each week to do your washing, you may think it is impossible to wash a tubful of clothes in 5 minutes. We are prepared to prove to you that the "One Minute" Washer will do this. One reason that our machine will wash clothes faster and better than any other washing machine on the market is: The Clothes Agitator on the inside of the tub throws the clothes against the corrugated sides and bottom twice as often as any other machine, forcing the soapy water through the clothes oftener, and therefore does the washing in half the time required by all other machines.

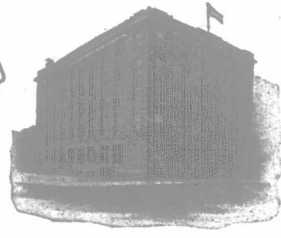
The One Minute is easy to operate, as the fly wheel under the tub runs on ball bearings. Again, when you push the handle one way of the stroke, the fly-wheel forces it back to you.

We want to tell you all about this machine, and we will mail you, upon request, complete description and some of our unsolicited testimonials. Don't delay but write to-day: to

THE ONE MINUTE MFG. CO., 69 LOGAN AVE., TORONTO



J.S.303



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ALL the goods shown here represent EXTRA SPECIAL values for this month. Our sole object in offering them now is to find out how many readers of this paper really KNOW a GENUINE BARGAIN when they see one.

Remember, this is NOT a store, but a Mail Order House from which you cannot buy EXCEPT by mail. We have ONE PRICE ONLY, and sell our goods in Winnipeg or Vancouver at the same price we charge our customers in Ontario. Money refunded if goods are not absolutely satisfactory in EVERY respect.

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PRICE, delivered\$8.48

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RE PAPERING.

Is light or dark paper most used in parlors and dining-rooms? Are borders and drop-ceilings in fashion for these rooms? Where no border is used, and moulding put on at ceiling, is it the picture-moulding that is put on, or other room moulding? In a large bedroom, would you advise a drop-ceiling of eight or ten inches, and a nine-inch border, or wide border at ceiling (no moulding to be used). Any other suggestions will be gratefully received. Hoping a reply will interest other readers, and thanking you in advance. SUBSCRIBER.

Wellington Co., Ont.

The color of paper used must depend upon personal taste and the lighting of the room. It is usually a mistake to put dark paper on a small, dark room; a large, bright room, will bear it better—if one admires dark papers. Deep borders are much liked when the walls are high, if plain, or very unobtrusively or harmoniously figured paper, is used below; drop-ceilings are also used, but in either case a narrow wooden moulding is used as a finish, i. e., below the border or drop. When the walls are not high, it is better to paper right to the top, and finish there with a moulding.

The moulding used is made for the purpose, and should be very plain, stained to some wood color, or painted white.

In the bedroom, I should either have a drop-ceiling or a border, not both, i. e., provided the wall is high enough to stand such a division.

Some beautiful papers in soft colorings and dull finish are shown this spring. You can scarcely make a mistake if you avoid gaudy and large, startling patterns, and keep to quiet, artistic colorings, chosen with regard to all the other colorings that are to appear in the room (in carpets, curtains, etc.). Floral patterns in dainty colorings are permissible in bedrooms, but are not suitable for other rooms, where more dignity should obtain. For these, choose plain or oatmeal papers, or, if design be liked, those with conventional patterns, in quiet, rich shades. Browns, buffs, deep cream, and certain shades of green and fawn, are most in favor for leading tones.

DINING - ROOM PAPER.

Dear Junia,—I have been an interested reader of "The Farmer's Advocate" for over thirty years, and enjoy it very much, especially the Ingle Nook.

I come to you this time to ask your opinion on papering a wall, which is now painted a cream color—the ceiling cream, with a very pretty border on ceiling—and wall of green. Ceiling and border are still very pretty, but the wall is very faded-looking. Would it look all right to paper the walls up as far as picture-moulding, which is directly below the painted border, and leave the ceiling and border as they are, and what pattern would you advise me to use for the paper?

The wood-work in this room has been painted white, but is turning yellow. Would a coat of white enamel make it all right, or would it need a coat of white paint first, then the enamel?

Thanking you in advance for any help you will give me, I am, sincerely yours,
HOUSEKEEPER.

We think it would be quite possible to paper to the moulding, leaving the painted border above, but without seeing the character and shade of green of that border, we can scarcely advise you in regard to the coloring of the paper to be used below. Why not think this out for yourself? Would a pale, dull buff do? We imagine, however, that oatmeal or quite plain paper would be better than figured for the lower part of the wall; otherwise the effect of the pretty border might be killed. Too much pattern, especially if bold, and chosen without regard to harmony of color, so often kills all effect of repose or dignity or beauty. As a rule, plain spaces are safe.

In regard to the wood-work which must be repainted, much will depend on the kind of paint used. Follow the directions on the cans. Usually, three coats are necessary, two of white paint, and one of enamel.

IRON RUST—NUT CAKE.

Dear Junia,—I have been a reader of

the Ingle Nook chats for some time, and would not know what to do without their place in "The Farmer's Advocate." Could you please tell me how I can take iron-rust spots out of a white breadspread? Will send my favored recipe for nut cake. One cup white sugar, 2 eggs creamed, 2 cups sweet milk, 4 cups flour, 4 teaspoons baking powder, 1 cup walnuts (chopped), pinch of salt; let rise 20 minutes. Bake from 15 to 25 minutes. VIVA.

Grey Co., Ont.

"Iron-rust" spots are often hard to remove. Try this method: Thicken lemon juice with equal parts of salt and starch, add some soft soap, apply the mixture to the cloth, and expose it to bright sunlight. If the first application does not remove the spot, repeat until it has disappeared.

If this does not remove the spots, apply dissolved salts of lemon after wetting the spots with water. Let remain until the spot disappears, then wash well with clean water, and launder as usual.

LADIES' EXCHANGES.

My dear Junia,—A friend wants me to ask you if you would kindly publish in your page of "The Farmer's Advocate" a list of ladies' "Exchanges," preferably in St. John, Toronto, and Montreal. If you do not have such a list, she thought perhaps you would kindly publish her request, and perhaps somebody would supply it. NOVA SCOTIAN.

We have not such a list, but shall be very glad to receive any information in regard to places where women's work may be exchanged or sold on commission. We understand there is one in connection with the Y. W. C. A., Toronto.

CLEANING STOVE.

Dear Junia,—Would like to get at the bear's paw quilt pattern. Describe the colors needed and how much of each, please.

Can you give any remedy to make the stove polish stick to the stove? I clean my stove to-day, and before to-morrow it is burned red. MRS. R. M.

P. E. I.

Bear's paw quilt pattern appeared in "The Farmer's Advocate" for January 9th, 1913.

Some add a little sugar or alum to the polish to make it adhere. Scientific American gives the following: "Mix 2 parts black lead, 4 parts copperas, and 2 parts of bone black, with water, to form a creamy paste. This is an excellent polish, as the copperas produces a jet-black enamel, causing the black lead to adhere to the iron."

(Continued on page 544.)

Rebecca of Sunnybrook Farm.

By Kate Douglas Wiggin.

Serial rights secured from Houghton Mifflin Publishing Company, New York.]

XXII.

CLOVER BLOSSOMS AND SUN-FLOWERS.

How d' ye do, girls?" said Huldah Meserve, peeping in at the door. "Can you stop studying a minute and show me your room?" Say, I've just been down to the store and bought me these gloves, for I was bound I wouldn't wear mittens this winter; they're simply too countrified. It's your first year here, and you're younger than I am, so I s'pose you don't mind, but I simply suffer if I don't keep up some kind of style. Say, your room is simply too cute for words! I don't believe any of the others can begin to compare with it! I don't know what gives it that simply gorgeous look, whether it's the full curtains, or that elegant screen, or Rebecca's lamp; you certainly do have a faculty for fixing up. I like a pretty room, too, but I never have a minute to attend to mine; I'm always so lousy on my clothes that half the time I don't get my bed made up till noon; and after all, having no callers but the girls, it don't make much difference. When I graduate, I'm going to fix up our parlor at home so it'll be simply regal. I've learned decalcomania, and after I take up lustre painting I shall have it simply stiff with drapes and tules, and plaques and sofa-pillows, and make mother let me have a fire, and

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. You see I sell my Washing Machines by mail. I have sold over half a million that way. 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.

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 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 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 six minutes.

Address me personally:

R. D. MORRIS, Manager 1900 Washer Co., 387 Yonge St., Toronto, Can.

FACIAL BLEMISHES

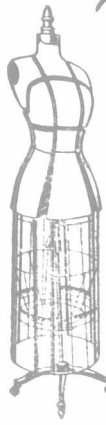


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Hiscott Dermatological Institute, 61 College St., Toronto. Est. 1892

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do away with all discomforts and disappointments in fitting, and render the work of dressmaking at once easy and satisfactory. This form can be adjusted to 50 different shapes and sizes; bust raised or lowered, also made longer and shorter at the waist line and form raised or lowered to suit any desired skirt length. Very easily adjusted, cannot get out of order, and will last a lifetime.

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receive my friends there evenings. May I dry my feet at your register? I can't bear to wear rubbers unless the mud or the slush is simply knee-deep, they make your feet look so awfully big. I had such a fuss getting this pair of French-heeled boots that I don't intend to spoil the looks of them with rubbers in oftener than I can help. I believe boys notice feet quicker than anything. Elmer Webster stepped on one of mine yesterday when I accidentally had it out in the aisle, and when he apologized after class, he said he wasn't so much to blame, for the foot was so little he really couldn't see it! Isn't he perfectly great? Of course, that's only his way of talking, for after all I only wear a number two, but these French heels and pointed toes do certainly make your foot look smaller, and it's always said a high instep helps, too. I used to think mine was almost a deformity, but they say it's a great beauty. Just put your feet beside mine, girls, and look at the difference; not that I care much, but just for fun."

"My feet are very comfortable where they are," responded Rebecca dryly. "I can't stop to measure insteps on algebra days; I've noticed your habit of keeping a foot in the aisle ever since you had those new shoes, so I don't wonder it was stepped on."

"Perhaps I am a little mite conscious of them, because they're not so very comfortable at first, till you get them broken in. Say, haven't you got a lot of new things?"

"Our Christmas presents, you mean," said Emma Jane. "The pillow-cases are from Mrs. Cobb, the rug from cousin Mary in North Riverboro, the scrap-basket from Living and Dick. We gave each other the bureau and cushion covers, and the screen is mine from Mr. Ladd."

"Well, you were lucky when you met him! Gracious! I wish I could meet somebody like that. The way he keeps it up, too! It just hides your bed, doesn't it, and I always say that a bed takes the style off any room—specially when it's not made up; though you have an alcove, and it's the only one in the whole building. I don't see how you managed to get this good room when you're such new scholars," she finished discontentedly.

"We shouldn't have, except that Ruth Berry had to go away suddenly on account of her father's death. This room was empty, and Miss Maxwell asked if we might have it," returned Emma Jane. "The great and only Max is more stiff and standoffish than ever this year," said Huldah. "I've simply given up trying to please her, for there's no justice in her; she is good to her favorites, but she doesn't pay the least attention to anybody else, except to make sarcastic speeches about things that are none of her business. I wanted to tell her yesterday it was her place to teach me Latin, not manners."

"I wish you wouldn't talk against Miss Maxwell to me," said Rebecca hotly. "You know how I feel."

"I know; but I can't understand how you can abide her."

"I not only abide, I love her!" exclaimed Rebecca. "I wouldn't let the sun shine too hot on her, or the wind blow too cold. I'd like to put a marble platform in her class-room, and have her sit in a velvet chair behind a golden table!"

"Well, don't have a fit!—because she can sit where she likes for all of me; I've got something better to think of," and Huldah tossed her head.

"Isn't this your study hour?" asked Emma Jane, to stop possible discussion.

"Yes, but I lost my Latin grammar yesterday; I left it in the hall half an hour while I was having a regular scene with Herbert Dunn. I haven't spoken to him for a week, and gave him back his class pin. He was simply furious. Then when I came back to the hall, the book was gone. I had to go down town for my gloves, and to the principal's office to see if the grammar had been handed in, and that's the reason I'm so fine."

Huldah was wearing a woolen dress that had once been gray, but had been dyed a brilliant blue. She had added three rows of white braid, and large, white, pearl buttons, to her gray jacket, in order to make it a little more "dressy." Her gray felt hat had a



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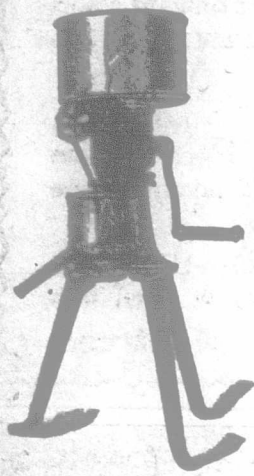
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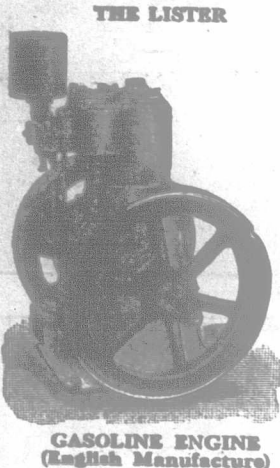
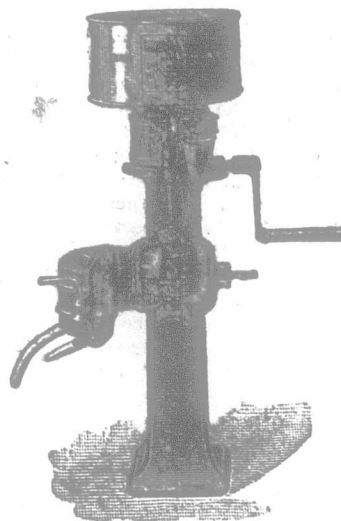


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Therefore, the "MELOTTE" is the cheapest Cream Separator to buy. Upkeep is so small that we shall be pleased to mail you book of testimonials from satisfied users in your district. Write to-day.

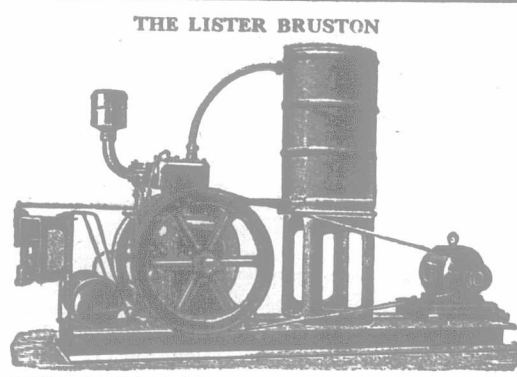


THE LISTER

GASOLINE ENGINE (English Manufacture)

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Starts Itself,
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white feather on it, and a white tissue veil with large black dots, made her delicate skin look brilliant. Rebecca thought how lovely the knot of red hair looked under the hat behind, and how the color of the front had been dulled by incessant frizzing with curling-irons. Her open jacket disclosed a galaxy of souvenirs pinned to the background of bright blue,—a small American flag, a button of the Wareham Rowing Club, and one or two society pins. These decorations proved her popularity in very much the same way as do the cotillion favors hanging on the bedroom walls of the fashionable belle. She had been pinning and unpinning, arranging and disarranging her veil ever since she entered the room, in the hope that the girls would ask her whose ring she was wearing this week; but although both had noticed the new ornament instantly, wild horses could not have drawn the question from them; her desire to be asked was too obvious. With her gay plumage, her nods and bows and wreathed smiles, and her cheerful cackle, Huldah closely resembled the parrot in Wordsworth's poem:—

"Arch, volatile, a sportive bird,
By social glee inspired;
Ambitious to be seen or heard,
And pleased to be admired!"

"Mr. Morrison thinks the grammar will be returned, and lent me another," Huldah continued. "He was rather snippy about my leaving a book in the hall. There was a perfectly elegant gentleman in the office, a stranger to me. I wish he was a new teacher, but there's no such luck. He was too young to be the father of any of the girls, and too old to be a brother, but he was handsome as a picture, and had on an awful stylish suit of clothes. He looked at me about every minute I was in the

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We offer, subject to sale, the following stocks, which we guarantee to be true to name. No. 1 stock in every respect; 5 to 7 feet high. Price, f.o.b. Pointe Claire, Que., \$27.00 per 100.

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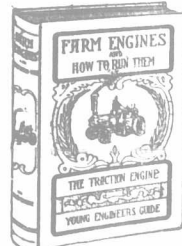
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GUARANTEED ANALYSIS:			
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FAT	8 " "		
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WINDSOR SUPPLY CO. Windsor, Ont.

Seed Oats—Banner, registered by Canadian Seed Growers' Association. Won eight-dollar prize at Winter Fair in December. Price, \$1.10 per bush, including bags. Apply to WM. L. DIXON, R. R. No. 1, Varney, Ont.

room. It made me so embarrassed I couldn't hardly answer Mr. Morrison's questions straight."

"You'll have to wear a mask pretty soon, if you're going to have any comfort, Huldah," said Rebecca. "Did he offer to lend you his class-pin, or has it been so long since he graduated that he's left off wearing it? And tell us now whether the principal asked for a lock of your hair to put in his watch?"

This was all said merrily and laughingly, but there were times when Huldah could scarcely make up her mind whether Rebecca was trying to be witty, or whether she was jealous; but she generally decided it was merely the latter feeling, rather natural in a girl who had little attention.

"He wore no jewelry but a sameo scarf-pin, and perfectly gorgeous ring,—a queer kind of one that wound round and round his finger. Oh, dear, I must run! Where has the hour gone? There's the study bell!"

Rebecca had pricked up her ears at Huldah's speech. She remembered a certain strange ring, and it belonged to the only person in the world (save Miss Maxwell) who appealed to her imagination,—Mr. Aladdin. Her feeling for him, and that of Emma Jane, was a mixture of romantic and reverent admiration for the man himself, and the liveliest gratitude for his beautiful gifts. Since they first met him, not a Christmas had gone by without some remembrance for them both; remembrances chosen with the rarest taste and forethought. Emma Jane had seen him only twice, but he had called several times at the brick house, and Rebecca had learned to know him better. It was she, too, who always wrote the notes of acknowledgement and thanks, taking infinite pains to make Jane's quite different from her own. Sometimes he had written from Boston and asked her the news of Riverboro, and she had sent him pages of quaint and childlike gossip, interspersed, on two occasions, with poetry, which he read and re-read, with infinite relish. If Huldah's stranger should be Mr. Aladdin, would he come to see her, and could she and Emma Jane show him their beautiful room with so many of his gifts in evidence?

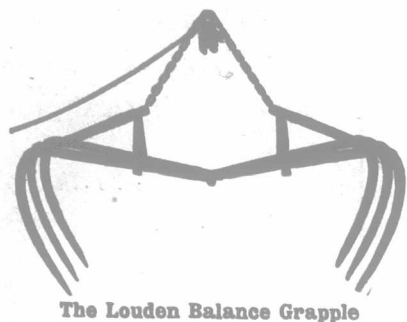
When the girls had established themselves in Wareham as real boarding pupils, it seemed to them existence was as full of joy as it well could hold. This first winter was, in fact, the most tranquilly happy of Rebecca's school life,—a winter long to be looked back upon. She and Emma Jane were room-mates, and had put their modest possessions together to make their surroundings pretty and homelike. The room had, to begin with, a cheerful red ingrain carpet, and a set of maple furniture. As to the rest, Rebecca had furnished the ideas, and Emma Jane the materials and labor, a method of dividing responsibilities that seemed to suit the circumstances admirably. Mrs. Perkins's father had been a storekeeper, and on his death had left the goods of which he was possessed to his married daughter. The molasses, vinegar, and kerosene, had lasted the family for five years, and the Perkins attic was still a treasure-house of gingham, cottons, and "Yankee notions." So, at Rebecca's instigation, Mrs. Perkins had made full curtains and lamprequis of unbleached muslin, which she had trimmed and looped back with bands of Turkey-red cotton. There were two table covers to match, and each of the girls had her study corner. Rebecca, after much coaxing, had been allowed to bring over her precious lamp, which would have given a luxurious air to any apartment, and when Mr. Aladdin's last Christmas presents were added,—the Japanese screen for Emma Jane, and the little shelf of English Poets for Rebecca,—they declared that it was all quite as much fun as being married and going to housekeeping.

The day of Huldah's call was Friday, and on Fridays, from three to half-past four, Rebecca was free to take a pleasure to which she looked forward the entire week. She always ran down the snowy path through the pine woods at the back of the seminary, and coming out on a quiet village street, went directly to the large white house where Miss Maxwell lived. The maid-of-all-work answered her knock; she took off her hat and cape and hung them in the hall, put her rubber shoes and umbrella

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Here's the "LOUDEN" Line again

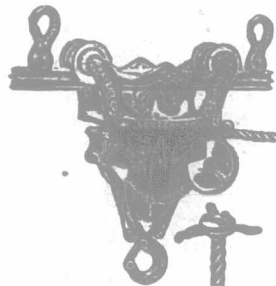
- Saving Time
- Saving Labor
- Saving Money



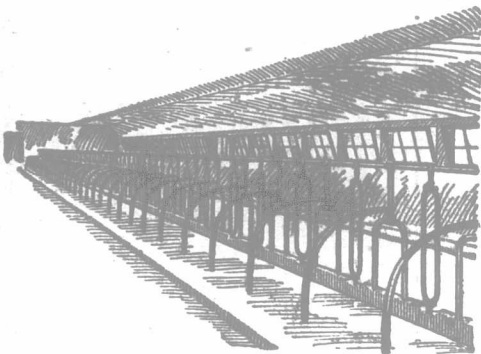
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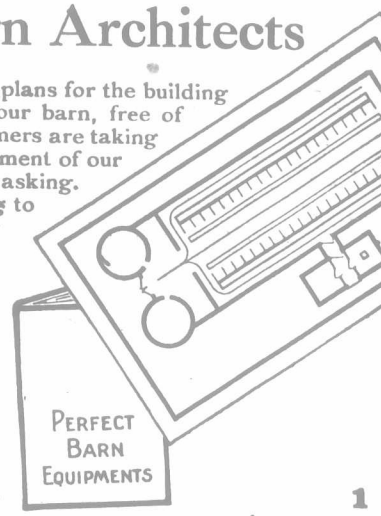
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HEADACHE
INSTANTLY RELIEVED BY THE OLD
DR. MARSHALL'S
CATARRH SNUFF
25¢

"That was a long time ago!"
"Let me see, I am thirty-two; only thirty-two, despite an occasional gray hair. My mother was married a month after she graduated, and she lived only until I was ten; yes, it is a long way back to my mother's time here, though the school was fifteen or twenty years old then, I believe. Would you like to see my mother, Miss Rebecca?"

The girl took the leather case gently and opened it, to find an honest, pink-and-white daisy of a face, so confiding, so sensitive, that it went straight to the heart. It made Rebecca feel old, experienced, and maternal. She longed on the instant to comfort and strengthen such a tender young thing.

"Oh, what a sweet, sweet, flowery face!" she whispered softly.

"The flower had to bear all sorts of storms," said Adam gravely. "The bitter weather of the world bent its slender stalk, bowed its head, and dragged it to the earth. I was only a child and could do nothing to protect and nourish it, and there was no one else to stand between it and trouble. Now I have success and money and power, all that would have kept her alive and happy, and it is too late. She died for lack of love and care, nursing and cherishing, and I can never forget it. All that has come to me seems now and then so useless, since I cannot share it with her!"

This was a new Mr. Aladdin, and Rebecca's heart gave a throb of sympathy and comprehension. This explained the tired look in his eyes, the look that peeped out now and then, under all his gay speech and laughter.

"I'm so glad I know," she said, "and so glad I could see her just as she was when she tied that white-muslin hat under her chin and saw her yellow curls and her sky-blue eyes in the glass. Mustn't she have been happy! I wish she could have been kept so, and had lived to see you grow up strong and good. My mother is always sad and busy, but once when she looked at John I heard her say, 'He makes up for everything.' That's what your mother would have thought about you if she had lived, —perhaps she does as it is."

"You are a comforting little person, Rebecca," said Adam, rising from his chair.

As Rebecca rose, the tears still trembling on her lashes, he looked at her suddenly as with new vision.

"Good-bye!" he said, taking her slim brown hands in his, adding, as if he saw her for the first time, "Why, little Rose-Red-Snow-White is making way for a new girl! Burning the midnight oil and doing four years' work in three is supposed to dull the eye and blanch the cheek, yet Rebecca's eyes are bright and she has a rosy color! Her long braids are looped one on the other so that they make a black letter U behind, and they are tied with grand bows at the top! She is so tall that she reaches almost to my shoulder. This will never do in the world! How will Mr. Aladdin get on without his comforting little friend! He doesn't like grown-up young ladies in long trains and wonderful fine clothes; they frighten and bore him!"

"Oh, Mr. Aladdin!" cried Rebecca eagerly, taking his jest quite seriously; "I am not fifteen yet, and it will be three years before I'm a young lady; please don't give me up until you have to!"

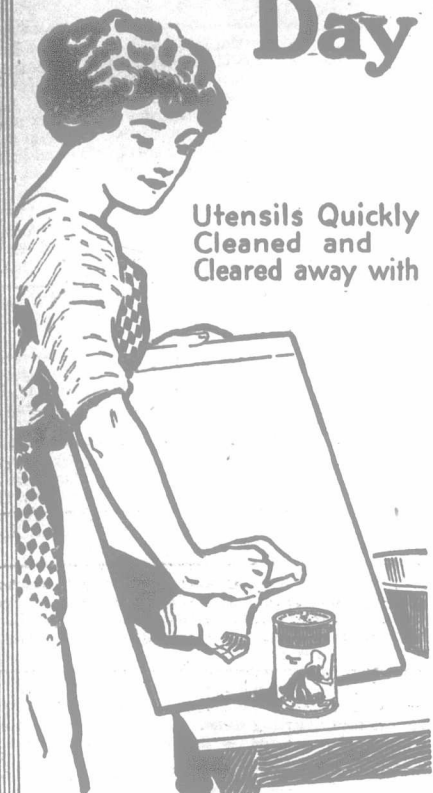
"I won't; I promise you that," said Adam. "Rebecca," he continued, after a moment's pause, "who is that young girl with a lot of pretty red hair and very civilized manners? She escorted me down the hill; do you know whom I mean?"

"It must be Huldah Meserve; she is from Riverboro."

Adam put a finger under Rebecca's chin and looked into her eyes; eyes as soft, as clear, as unconscious, and childlike as they had been when she was ten. He remembered the other pair of challenging blue ones that had darted coquettish glances through half-dropped lids, shot arrowy beams from under archy-lifted brows, and said gravely, "Don't form yourself on her, Rebecca; clover blossoms that grow in the fields beside Sunnybrook mustn't be tied in the same bouquet with gaudy sunflowers; they are too sweet and fragrant and wholesome."

(To be continued.)

On Baking Day



Utensils Quickly Cleaned and Cleared away with

Old Dutch Cleanser

A dash of Old Dutch on a damp cloth quickly removes the caked flour from the rolling pin and the bread board, cuts away the burnt-in crusts on the baking pans.

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SEED OATS FOR SALE - Yellow Russian These oats will win you a place in the field crop competition. 1912, I won 1st in competition crop. 1st at Ottawa winter fair, 2nd on sheaf and 6th on grain at Ottawa fall fair. This oat won 1st 2nd, 3rd, 5th in our field crop. 1911, won 1st and 2nd in field crop; I won 4th at Ottawa winter fair and 1st at Toronto and sheaf. 1910, I won 2nd on sheaf at Toronto and 2nd on grain at Ottawa. Price, 50 bushel lots 85c. per bushel; 5 bushel lots \$1.00; bags 25c. each. **THOS. COSH,** Bobcaygeon, Ont.

The Beaver Circle.

Our Junior Beavers.

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

A Story.

Dear Puck,—I am sending you a story for the little Beavers to read. I made it all up myself. I had a sore hand, and had nothing to do, so I sat down and made this story up. I sent you one before about a kitten, and I saw my name on the honor roll, but I did not know we had to tell you we made it all up ourselves. I like reading the Beavers' letters very much, and I like that story, "Rebecca of Sunnybrook Farm." Some of the little Beavers did very well in the Doll's Dress Competition. Well, I guess I must close.

MARY LEMENDIN (age 14).

Peterboro, Ont., R. R. No. 2.

Here is the story:

A long, long time ago, there lived at the edge of a large forest a man and his wife, and their two little girls, Ethel and Laura. They were not, as you might say, "good-looking" girls, but they were very good to their father and mother. Ethel's age was nine, and Laura's eleven. One day the father



Little Charlie Conn, Grey Co., Ont.

Photo by Mrs. Buchanan, Ravenna, Ont.

went out to work to chop wood. He generally came home at six o'clock, but this evening he didn't come home till late. They waited till about eight o'clock for him and he didn't come, so they thought they had better get their tea. They were sitting around the fire talking when there came a knock at the door, and in walked four men, carrying the dead body of their father. Little Ethel and Laura were very sad, and they cried very much. It was never known how the man got killed, and it will always remain a mystery.

The tragic death of her husband brought about the sudden illness and death of the poor wife. The children felt their sorrow very deeply, but they bore it bravely. There were only a few dollars left to them, but they were very industrious, and tried to be as saving as they could. Ethel went out every day to get the things they most needed, and often neighbors around would give her vegetables and fruit. One day she went out as usual and did not come back. Poor Laura became very uneasy, and sent messages to her neighbors to look for her, but of no avail—Ethel could not be found.

Poor Laura, living all alone, with no one to talk to but a cat, felt very lonely.

While all this was going on, little Ethel was living far away with an old woman. She had got lost in the forest, and she had wandered on and on, not knowing whither she was going. At last she came to an old woman's house. This woman was a witch, but Ethel did not know it. She knocked at the door, and asked the witch for some food and a night's lodging, as she was nearly starved. The old woman took pity on her, and brought her in and gave her something to eat, then told her to go and lie down on the bed. Ethel got on very well with the old woman. She did up her work very well, which gave her a good character from the witch.

One day, sad to say, she did something very wrong which displeased the witch terribly. While she was fast asleep in bed, the witch crept in and touched Ethel with her wand and

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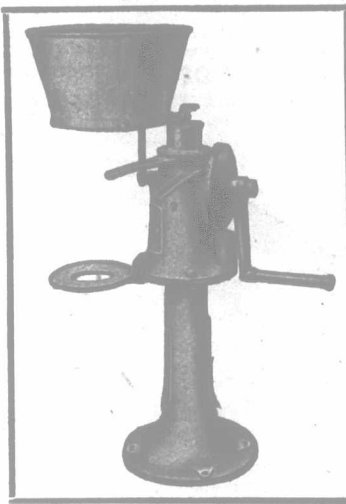
F. R. Mallory, Frankford, Ont.

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out of the most valuable product of the farm by purchasing a Cream Separator which gets all the cream.

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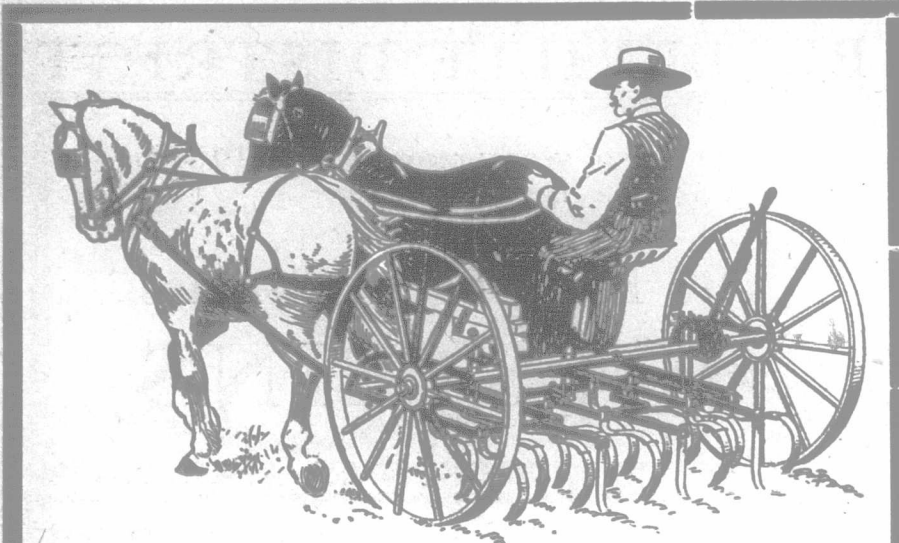
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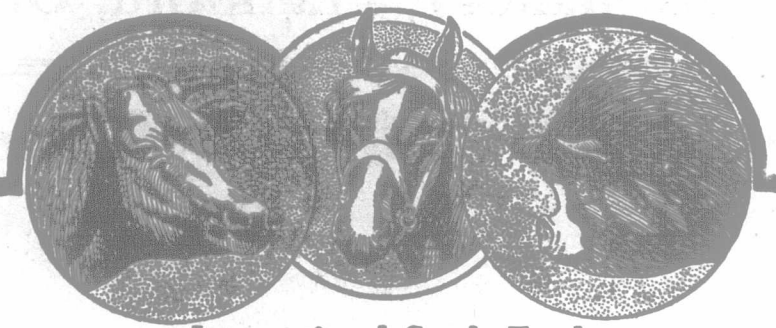
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THE WHIFFLE TREES are attached in line with the sections. The draft is light, and there is no chafing of the horses' necks, THE SECTIONS are made out of heavy extra stiff steel, and will not bend, and the teeth are reinforced with an exceptionally good helper, and will stand all kinds of rough usage.

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International Stock Food
Is Equally Good for Cows—Horses—Pigs

This great tonic is for all live stock—to make cows give more milk—to keep the working teams in prime condition—to fatten pigs and keep the "winter" pigs strong and vigorous. We guarantee that it will make your colts, calves, pigs, sheeps and lambs grow rapidly, and keep them healthy and thriving all the time.

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Here's another farmer who finds it pays to feed International Stock Food—
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"INTERNATIONAL STOCK FOOD is all O.K. I average a package every two months for my stock—having three horses, four cows, two calves, four steers and sheep. One-half ton of this food has given me 50 per cent. more milk since feeding International Stock Food. It is also good for calves."
BEVERLY TOWER.

International Stock Food, Poultry Food, and Veterinary preparations are for sale by dealers everywhere. If you cannot obtain our goods in your town write us direct.
INTERNATIONAL STOCK FOOD CO., LIMITED Toronto



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A 50-page illustrated treatise on how to prepare and preserve silage, how to select a silo, how to feed. A book worth money to farmers

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Professor Van Pelt

The famous cow judge, has an article in our Silo Book. So has Valancey E. Fuller and other authorities on feeding stock. Every stock owner should get this book and read it. Send for copy to-day, asking for Catalogue 6.

NATIONAL FIRE PROOFING COMPANY OF CANADA, Limited
Traders' Bank Building
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changed her into a bird. Away she flew, never resting till night set in.

We will now leave Ethel and turn to where we last saw Laura living all alone. At last she could not bear it any longer, so she determined to set out and seek her sister. She packed up her little bundle of clothes, and some food to last her a week, then set out with the cat following closely at her heels. She wandered on and on till her food became scarce, then she had to eat the wild berries that grew on bushes and trees. At last, tired and worn out and faint with fatigue, she fell down unconscious. How long she stayed there she did not know, but when she came to herself she was lying in a beautiful bed in a king's palace. She had been picked up by the king's son and brought to the palace. She lived very happily there, but still mourned for her sister. Once, while she was sitting with a lot of other young people, a little bird flew down and alighted on the ground. Presently it began to sing:

"Maiden fair, maiden fair,
I stand here and you stand there,
Cut off my head, cut off my tail,
And see what comes of your avail."

Poor Laura felt very frightened, but she went in and got a knife and cut off the head and tail of the bird, when—lo! and behold, there stood her long-lost sister Ethel. They were very pleased to see each other again, and they went in and told the king and queen. The king and queen were very pleased, and had a great feast spread in honor of Ethel. Laura got married to the king's son and lived happily, while Ethel was too young to marry, so she lived with the king and queen till she became of age, and they all lived happily together.

Junior Beavers' Letter Box.

Dear Puck and Beavers.—I thought I would write a letter to the Circle, as I have never written before. My father takes "The Farmer's Advocate," and has taken it eight or nine years. I go to school, and am in the Fourth Reader. We have eleven children in our school. Our teacher's name is Miss Murray. We all like her very much. We have been doing our test sheets, and have been very busy. We had a concert last year; collected about four dollars or more, and we got things for the school-house.
NELLIE BENNETT.
Bishop's Crossing, Que., R. F. D. No. 1.

Dear Puck and Beavers.—As this is my first letter to the Beaver Circle, I hope it will escape the w.-p. b. I live on a farm, and father has taken "The Farmer's Advocate" for two years, and he likes it fine. I enjoy reading the Beavers' letters. We have two small calves, a little colt, and a little kitten. I also have a little sister six years old, and we both go to school. I shall have to close now, as my letter is getting rather long.
VERNIECE HOWIE (Bk. II., age 10).
Westbrook P. O., Ont.

Dear Puck and Beavers.—Papa takes "The Farmer's Advocate," and I like the Beaver stories very much. I go to school every day; I have a mile and a half to walk. I like the teacher very much; her name is Miss Clarke. I have one sister. My sister and I were in Chicago last summer. We had a fine time.
FLORENCE JOHNSON.
(Age 9, Class II.).

Dear Puck and Beavers.—As this is Saturday, I thought I would write you a letter. This is the third time I have entered your cozy corner. My papa has taken "The Farmer's Advocate" ever since I can remember, and we all enjoy reading it. I go to school every day, and like it fine. Our teacher is Miss Aird; we all like her very much. I am in the Third Class at school; I tried for the Third last summer and passed. I think the story, "Rebecca of Sunnybrook Farm," is a good story. For pets, I have a little white kitten; his name is Tommy. We also have a dog and a little pup; he is a nice little fellow, and is fond of play. Well, Puck, I suppose I will have to close now. Your little friend,
BELLA MacLEOD.
(Age 10, Jr. III.).
Moose Creek, Ont., Box 65.



Condensed advertisements will be inserted under this heading at three cents per word each insertion. Each initial column for one word, and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 50 cents.

BARRLED ROCK eggs from well-bred, heavy-laying, prize-winning stock; \$1 per 15, \$2 for 40, \$4 per 100. Chas. Hilliker, Norwich, Ont.

BUTTERCUPS—A few cockerels, \$2 each. Limited number of eggs, \$1.50 per 15. H. Roy Piper, Iona, Ont.

BUFF ORPINGTONS, Large vigorous stock, B good color and type guaranteed, laying strain. Eggs \$1.00 for twelve. M. T. Payne, Belmont, Ontario.

BUFF ORPINGTONS—Pure bred cockerels \$3 pullets \$2; large stout healthy birds. Satisfaction guaranteed. Hugh A. Scott, Caledonia, Ont.

BRONZE turkeys from prize stock. R. G. Rose Glanworth, Ont.

CANADIAN Kinglet Barred Plymouth Rocks—Winners International Laying Contest. Pedigreed cockerels, pullets, strong baby chicks. Large hatching eggs. Custom hatching. Alf. B. Wilson, St. Catharines, Ont.

CLARK'S Orpingtons, Buff and White, 40 Ck's good type and color, \$3 to \$5 each; 80 pullets and yearling hens, \$3 to \$4 each. Good laying strain. Eggs for hatching. Free illustrated catalogue for asking. J. W. Clark, Cainsville, Ont.

EGGS FOR SALE, R. C. Rhode Island Reds \$1.50 per 15 or \$5.00 per 100, after middle of May \$1.00 per sitting, good laying strain. Henry Dodge, Cairngorm, Ont.

EGGS—\$1 setting, \$5 hundred, "Snowflake" S. C. W. Leghorns. Record layers. E. W. Burt, Paris, Ont.

EGGS FROM OUR "GREATEST LAYERS"—Banded Rocks, only one dollar per fifteen; five dollars per hundred. Few birds for sale. Central Ontario Poultry Yards, Colborne, Ontario.

FAIR VIEW BRED-TO-LAY Barred Plymouth Rocks pay; why? because they are a uniformly well colored flock of strong healthy birds. Always had large orchard run. During Dec. Jan. and Feb. my 100 hens laid 328 dozen large yellow eggs. Eggs \$1. per 15, \$5 per 100. S. H. Culp, Campden, Lincoln, Co.

FOR SALE—Choice S. C. W. Leghorn Cockerels and eggs in season. Wm. Charlton, Ilderton, Ontario.

TWENTY large vigorous white Wyandotte cockerels of heavy laying strain, at \$3.75 each.—Our best birds. Also Barred Rock Cockerels—Canada's champions. Satisfaction guaranteed or money refunded. First comers get the choice ones. Jno. Pringle, London, Ont.

UTILITY ROSE COMB Rhode Island Red eggs—fifteen, one dollar and one fifty; White Wyandottes same prices; trio Reds, six dollars. Wesley Shanklin, Vanneck, Ont.

WHITE WYANDOTTES, big, vigorous, stay white Cockerels from heavy laying strain, \$2, \$3, and \$5, each. Have won \$4 out of 42 first prizes at New York State Fair in seven years. Eggs \$3, per 30, \$9 per 100. Free illustrated catalogue. John S. Martin, Drawer R., Port Dover, Ont.

WHITE WYANDOTTE Cockerels, \$3. Pullets \$1. Eggs \$1. per fifteen. Mrs. Clapp, Tecumseh, Ont.

What Each Section Needs

IS A
Central Custom HATCHERY

WHERE one man hatches eggs for everybody, cheaper and better. Start the Hatchery this spring and your customers will raise

More Poultry and Eggs to supply the Market, instead of Importing them.

Write for our free Custom Hatching Book.

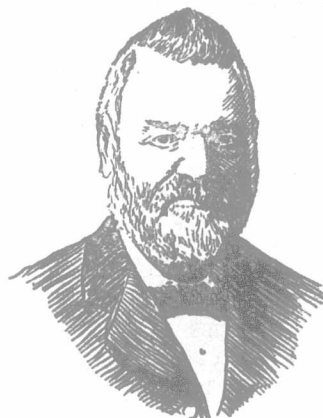
Canadian Incubator Co., Limited
152 BAY ST., Dept. 5, TORONTO, ONT.

LEARN TO RUN AND REPAIR AUTOS

THIS FREE BOOK explains how you can enter the AUTO BUSINESS as CHAUFFEUR, REPAIRMAN, SALESMAN. Our simple system of home training with lessons—charts and models—enables YOU to become an AUTO expert. Demand exceeds supply. Write for FREE Book and New Employment Plan. Don't delay. Practical Auto School, 60T Beaver St., New York, N. Y.

The Rumely Complete Line

We've been in business since 1853—each year we've grown bigger and built better. We've brought into the Rumely fold the best reputations in the farm machinery field—Secor, Higgins, Olds, Watts, Falk, Adams, Advance and Gaar-Scott.



There is a Rumely Product for every farm power need. Every machine is a cost cutter—a saving, not an expense.

We have a new general Rumely Catalog and a new general Advance-Gaar-Scott Catalog and separate data-books on each machine. They are all interesting, valuable books. Don't bother to write—just mark below with crosses and we'll select the catalogs for you.



RUMELY PRODUCTS CO.

(Incorporated)
Power-Farming Machinery
Winnipeg Vancouver Edmonton Regina Saskatoon
Brandon Yorkton Toronto Estevan Calgary

TEAR OFF HERE, FILL OUT AND SEND

Send Catalog	Will be in Market (Date)	Size Preferred	MACHINE
			Oil-Pull Tractor
			Gas-Pull Tractor
			Tee-Hold Tractor
			Engine Gang Plow
			Corn Sheller
			Corn Husker
			Husker-Shredder
			Rumely-Olds Engines
			Oil-Turn Engines
			Clover Hullers
			Automatic Baler
			Feed Mill
			Saw Mill
			Grain Grader
			Steam Tractors
			Cream Separators
			Threshers
			Pumping Outfits
			Electric Light Outfits
			Pump Jacks
			Tank Wagons

Pro-fat Molasses Meal

(75% Dried Malt, 25% Pure Cane Molasses)

The wonderful results obtained by the large dairies and dairy-men around Toronto by feeding our Pro-fat dairy feed has led this company after many requests from dairymen to add 25 pounds of pure Cane Molasses to each 75 pounds of Pro-fat. The result being a molasses meal without an equal, as the following guaranteed analysis will show:—Protein 20%, Fat 5%, Fibre 13%. Compare this with other molasses meals offered to the public and it will leave no doubt in your mind as to the truth of our claim. After a test at the T. Eaton Company's Farm, Georgetown and other Dairy Centres, we have decided (in order to introduce this meal) to make the following proposition to Dairymen throughout the province:—

30 Days' Trial

We will ship on thirty days' trial, freight paid, one ton of Pro-fat Molasses Meal to any responsible dairyman in the Province of Ontario with an absolute guarantee (fed pound for pound in place of other meal or concentrates) to produce more and richer milk for less money. If it fails to do this there will be no charge for the meal. If it is all we claim for it, the charge will be \$1.40 per hundred or \$28.00 for the ton. Dairymen who have recognised the value of Cane Molasses for dairy herds have an opportunity here of trying a genuine molasses meal of real merit without running any risk whatever. It is the only molasses meal endorsed by the authorities of the O. A. College Guelph. Send your orders in or write to us for more particulars if you have any doubt about this offer. This meal is equally good for horses, no dairyman can afford to be without it. Write for list of dairymen who have already used it.

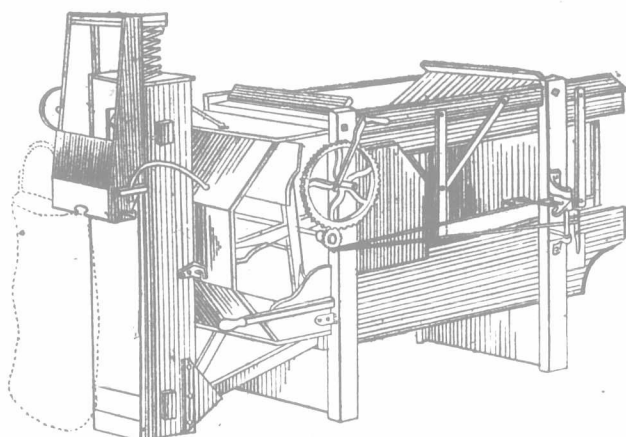
Feed Pro-fat Molasses Meal and Watch the Milk Flow Increase

THE FARMERS FEED CO., LIMITED,
DEPT A., 108 Don Esplanade, TORONTO, ONT.

Remember: WHAT YOU SOW, YOU REAP

"Wild Seeds Sown Will Surely be Grown"

Klean With the Kline



THE KLINE FANNING MILL

is the only mill on the market that will separate wild oats from wheat and leave it fit to sow.

The KLINE has a prestige in farming circles that no other mill enjoys. It is founded on correct principles, is built of solid materials properly kiln dried, has an elevator different to any other and, above all, the mill has an enormous capacity.

The KLINE has given unparalleled satisfaction for the last forty years and is now in the height of its glory.

If we have no agent near you we will send you a mill complete from the factory, freight paid, at the following prices:

- Mill Complete—Ontario, south of North Bay, \$35 cash.
- Balance of Ontario and Quebec, \$36 cash.
- Nova Scotia, New Brunswick and Prince Edward Island, \$37 cash.

For further particulars and catalogue of mill write to head office:

KLINE MANUFACTURING CO., Limited - Beeton, Ont.

Dispersal Sale of Shorthorns

The Shorthorn Herd of the Maitland Bank Stock Farm being one of the oldest Shorthorn Herds of milking strains in Western Ontario consisting of Bulls, Cows and Young Heifers, 32 head from the following families, viz.: Campbell Bessie; Campbell Rose Buds; Campbell Clarets; Mar's Beauties and Mar Rachels will be sold by Public Auction on

FRIDAY, MARCH 28th, 1913

Commencing at 12 o'clock noon

TERMS: All sums under \$10 cash, over that amount nine month's credit on approved Joint Notes; Five per cent. off for cash. Sale positively without reserve.

S. F. Scott & Capt. T. E. Robson, David Milne,
Auctioneers Proprietor
ETHEL, P. O., - - - - - ONT.

Registered Percherons at Auction

At their Barns on the Market Square, Chatham, Ont.
On Saturday, April 5th

Messrs. McGARVIN BROS. will sell at auction, registered Percherons, consisting of Stallions, from weanlings to horses ready for service; and Mares, from weanlings to some in foal. Also a number of grade mares and geldings.

Any one interested can get their catalogue by writing
McGarvin Bros., - 40 Market Square, Chatham



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

ALL KINDS OF FARMS—Fruit Farms a specialty. W. B. Calder, Grimsby.

FARM FOR SALE OR RENT, 130 acres or 140 acres well drained sandy loam and clay loam, well adapted for dairying or grain growing. Joseph Weld, Farmer's Advocate, London, Ont.

FARM FOR SALE—200 acres; grain and stock farm, brick house, frame barn, power mill, modern stabling, 6000ft. cement floor, water throughout; splendid farm for alfalfa and corn. Two spring creeks. For particulars write J. A. Douglas, Mount Forest Ont.

FARM FOR SALE—North half lot 17, 2nd range north, Ekfrid, containing 100 acres. Good clay loam; 10 acres in woods; good sugar bush; young orchard, including apple, pear, each, plum and cherry trees, and grape vines. Good garden, with large berry patch, including Herbert, Cuthbert and Columbian red raspberries, black-caps, blackberries and strawberries. About 700 rods new wire fence. Seven-room house; large barn and shed, and other out buildings. Immediate possession if desired. W. R. Sutherland, Glencoe P.O., Ontario.

SCOTCHMAN, age 36, single, open for job to handle studs or manage stables in or near Toronto; life experience, and sober. First-class references. Apply Mc, Farmer's Advocate, London, Ont.

WE HAVE a few choice farms within sixty miles of Winnipeg, good for grain or mixed farming, cultivated, with fair buildings. Price from twenty five to forty dollars per acre, according to location and improvements, also choice wild land in Saskatchewan, eighteen dollars per acre. Royal Canadian Agencies Limited, Winnipeg, Canada.

WANTED, TO RENT, a farm of about one hundred acres, for general farming. Apply to Box L, Farmer's Advocate, London, Ont.

WANTED—Experienced cattleman (single) yearly engagement. Oak Park Stock Farm Co., Brantford.

WANTED—Capable girl or woman for general household work. W.C. Good, Brantford.

WANTED—Three good men for dairy and mixed farming; good milkers. Wages three hundred and sixty dollars a year and board. Corfield, Kekalah, Vancouver Island, B. C.

WANTED—By April 1st a married man, with small or no family, to work 130-acre farm. Good horseman preferred. Apply to I. R. Thompson, Box 235, Guelph, Ont.

WANTED—CUSTOM TANNING—Send me your cattle and horse hides, and have them tanned and made into robes and coats. Deer skins tanned for buckskin, also made into mitts and gloves. We tan all kinds of hides, skins and furs. Send them to me and have them dressed right. B. F. BELL, Delhi, Ont.

Cream—Sweet or sour, bought at highest Toronto prices, at any point in Ontario. We furnish cans, pay promptly—haven't paid less than 32 cents for weeks. Write: TORONTO CREAMERY CO., Ltd., Toronto

60 Acres, \$1,500 Cash Needed. Last Year's Income, \$2,675.

Splendid home and big money-making New York farm thrown on market because of owner's advanced age. If you are the right man you may have possession upon payment of practically half of one year's income. Chance of a lifetime for a responsible young hustler. Rich, level fields, spring-watered pasture for 10 cows; orchard of apples, pears, plums and cherries; two acres black raspberries, 500 red raspberries, two acres strawberries. Only one mile to R. R. station. Mail delivered. One-quarter mile to river. Splendid buildings. Two-storey 12-room house. Drilled well; big barn; cellar, cement floor; silo; wagon shed; greenhouse and steam heating equipment. If taken now, only \$4,500; one-third cash, balance easy terms. Photograph of beautiful residence, and travelling directions to see it, and a 100-acre fruit farm for \$2,300, page 5, Strout's Farm Catalogue 36—just out. Write to-day for free copy. E. A. Strout Farm Agency, Station 2415, 47 West 34th St., New York.

Cream Wanted

We guarantee highest Toronto prices, full weights and prompt returns. Our 15 years experience ensures satisfaction. We furnish cream cans and pay express charges. Write:

Toronto Creamery Co., Limited
 Toronto, Ontario.

O. A. C. No. 21 Barley.

Another supply of beautiful seed now ready. We increased one pound to nine hundred bus. in three crops. Price 90 cents per bus. Best cotton bags twenty seven cents.

Jno. Elder, Hensall, Ont.

PAIR STANDARD BRED MARES 4 and 5 yrs., well mated, stand 16 hands, weight 1100 lbs or over; dark bays. Robt. L. Pendergast, St. David's, Ont.

Shires For Sale—One 3-yr.-old stallion well bred, good quality, a big fellow with lots of substance; also a 7-yr.-old imported Shire mare in foal. R. D. Ferguson, Port Stanley, Ont.

Improved Early Ohio White heavy cropper; quality extra; choice seed \$2 per bushel. P. N. Haight, Box 124, St Thomas, Ont.

News of the Week.

CANADIAN.

The centenary of the birth of David Livingstone was celebrated throughout Canada, as in all the world, on Wednesday, March 19th.

The deadlock in the Canadian House of Commons lasted throughout last week, and the debate was resumed again on Monday. At time of going to press, it is believed by many that an appeal to the country must be resorted to before the navy question can be settled.

Unprecedented interest, in Canada, has followed the progress of Dr. F. F. Friedmann, the German doctor and scientist. Arriving in Montreal a fortnight ago, he treated scores of consumptives almost immediately after his arrival. Since then, his days have been spent in restless work. In Ottawa, Toronto, and London, he has administered treatments to scores of cases before thronged audiences, chiefly made up of physicians, nurses, and prominent citizens. Dr. Friedmann's cure is by hypodermic injection of a liquid which counteracts the effects of the disease, somewhat upon the principle of the antitoxin now universally administered in diphtheria cases. He discovered the cure after fourteen years of research and experiment, and, before coming to America, treated 1,800 cases without a failure. In reports from New York, he has been described as "nervous," but his nervousness appears to be that of nervous energy. "He is as cool as a cucumber," writes one enthusiastic Canadian witness, in the Globe. "His fingers are the prehensory digits of a man who is seized with a passion. They move swiftly and dexterously on account of long practice. But he is always the thinker." Great hopes are entertained that Dr. Friedmann's discovery may indeed prove one that will make the horror of the white plague a thing of the past. He left for New York on March 15th.

BRITISH AND FOREIGN.

Fighting still continues in Mexico, where bands of Indians are joining the rebel forces against President Huerta.

The foundation stone of Canberra, the future Federal Capital of Australia, the first city in the world to be built according to plan, was laid on March 12th.

Another earth-slide has taken place in the Culebra Cut at Panama.

Relations between Germany and France are said to be somewhat strained.

Gossip.

Caledonia Milling Co., Ltd., Caledonia, Ont., have just informed us, as we go to press, of the following changes in prices named in their advertisement for various farm seeds: Alfalfa, or Lucerne, \$11 per bushel, was \$12; O. A. C. No. 21 Barley, 80 cents per bushel, was 90 cents; Silver Mine Oats, Siberian Oats, and Banner Oats, each 55 cents, were 60 cents. They also offer Ligowo Oats at 55 cents per bushel, and Golden Vine Peas, \$1.75 per bushel, bags extra; cotton 25 cents, jute 10 cents.

As advertised on another page in this issue, an auction sale of registered Percherons, comprising stallions, from weanlings to horses ready for service, and mares, from weanlings to some in foal, also grade mares and geldings, the property of Garvin Bros., Chatham, Ont., will be sold by auction on Saturday, April 5th. We are assured that anyone wanting a good young horse, ready for service, a brood mare, a colt, or a filly, bred in the purple, will do well to attend this sale, as the proprietors are one of the pioneer firms in Canada in the breeding of Percheron horses, and the firm name has always been an assurance of a square deal.

Large Wires—

Figure Fence Cost by Years of Service

Mean Long Life and Great Strength

CONSIDER size of wires, weight per rod—figure years of service against cost per rod and you'll save money by choosing American Fence. More for your money. More weight; big wires; heavy galvanizing; long life; perfect security.

Let the Dealer Prove It

Agents in every town.
 Manufactured by the

Canadian Steel & Wire Company, Limited,

Hamilton, Ont. Winnipeg, Man.



AMERICAN

ORIGINAL AND GENUINE FENCE

27810

BASIC SLAG

WILL BE SUPPLIED FREE OF CHARGE TO A LIMITED NUMBER OF ONTARIO FARMERS.

We have resolved that the merits of Basic Slag as a fertilizer in the renovation of old worn out pastures on stiff clay or sour soils, shall this season become known in every agricultural district in Ontario.

Applications are therefore invited from farmers in districts where BASIC SLAG has not hitherto been used, who have land answering the above description, and we are prepared to supply a ton of Basic Slag free of charge to such farmers as we may select, to be distributed broadcast over two acres of land.

A preference will be given in cases where the Slag can be applied to a field adjoining a public highway. We are not philanthropists and we are cheerfully spending thousands of dollars this season to make the merits of BASIC SLAG known in Ontario.

Once this is achieved our money will come back because the farmers in Ontario will find it as profitable to use Basic Slag as their fellow agriculturists do in the Maritime Provinces. Early application is requested.

THE CROSS FERTILIZER CO., Ltd., SYDNEY, N.S.

Or to Their Sales Agents:
 For Western Ontario, A. E. WARK - Wanstead, Ont.
 For Eastern Ontario, A. L. SMITH 220 Alfred St., Kingston, Ont.
 For Quebec, A. GUERTIN, 531 Notre Dame St. West, Montreal, Que.

When writing advertisers please mention this paper.

Scroggie's Personal Mail Service

NO WOMAN SHOULD MISS THESE VALUES

OUR Buyers scour the markets of the world for Scroggie Whitewear. These particular lines were purchased by our Merchandise Director months ago when in Europe. We had to buy in tremendous quantities to get prices down so low. NOTE:—Your order will be shipped the same day it is received.



A GENUINELY GOOD VALUE

THIS HANDSOME
BRIDAL SET
\$5.00

SENT PREPAID

U65-1—Bridal Set, comprising Nightgown, Princess Slip and Drawers, of fine quality nainsook, beautifully finished with deep embroidery insertion and edging, with ribbon. Sizes: 34, 36, 38, 40 and 42.

A RARE VALUE

BRIDAL SET
OF FIVE GARMENTS
COMPLETE FOR \$4.00

U05-2—Bridal Set, of 5 garments, including Nightgown, Chemise, Corset Cover, Drawers and Underskirt, made of extra fine quality Cambric, neatly trimmed with deep lace insertion and edging, finished with ribbon. Every piece well made and specially made and designed to meet the requirements of our Mail Order customers. Sizes: 34, 36, 38, 40 and 42.

BRIDAL SET

"PAR EXCELLENCE"
VERY LOW PRICE SENT PREPAID
COMPLETE FOR \$6.50

U55-3—Bridal Set, "par excellence," consisting of Nightgown, Chemise, Corset Cover, Drawers and Underskirt. Material is the very best quality nainsook, elegantly trimmed with embroidery insertion, ribbon beading and embroidery edging. This is unequalled value for discriminating buyers, and ensures pleasurable satisfaction to the most fastidious dresser.

You Take No Chance in Buying Whitewear at Scroggie's, the Quality is Guaranteed

W. H. Scroggie
Limited
MONTREAL, QUEBEC

Write for a copy of our New Spring Catalogue.
It's the greatest Style Book published.

When ordering, mention the name of this
paper, and be assured of prompt service.

SCROGGIE'S Personal Mail Service is a new service—it has just been inaugurated—it is not Mail Order—it has no relation to Mail Order the way it is at present conducted elsewhere. Your letter for merchandise is not dropped into a bag or pigeon-hole, taken out in routine order, filled without regard to your evident taste, jammed into a box and rushed back the easiest way possible.

The Scroggie Personal Mail Service is altogether different. It places at your disposal a personal representative, a trained and experienced shopper, one with an intimate and varied knowledge of this large store's stocks. When your letter reaches us it goes straight to the desk of the correspondent who will act as your personal agent, serve you and continue to serve you as long as you desire. It will be to his or her interest to serve you well, for their success will depend on their record of satisfied customers.

This new service will eliminate delays, prevent errors, and stand as an insurance against the disappointments of the present old-style Mail Order System. Try it!

We prepay transportation charges on all orders amounting to \$5.00 and over in Quebec, Maritime Provinces and Ontario, except west and north of Sudbury and Sault Ste. Marie.

To customers living in the West we will allow a discount of 5% to help pay your transportation charges. This 5% will be refunded when the goods are shipped.



"Uniformity is a big word, Bud."
"I 'spect it's because it means a lot, Rose."

Steady—Regular—Dependable Quality,
there's the FIVE ROSES' idea.

No bad dreams bakeday eves — the morning batch "flat" instead of "up."

So very exasperating, you know, to get less loaves this week than last from the same quantities.

FIVE ROSES is the sure flour — reliable, you see.

No wrinkling worries over bread, or cakes, or pies, or anything.

Bake things always up to the mark of your happy expectations.

Disappointment—never.

Four times Uniform—Strength, Color, Flavor, too, and Yield.

FIVE ROSES—trouble-proof flour.

Use FIVE ROSES always.

10

Five Roses Flour

Not Bleached



Not Blended

LAKE OF THE WOODS MILLING COMPANY, LIMITED, MONTREAL

The Ingle Nook.

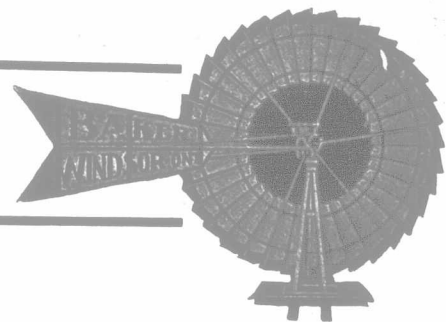
(Continued.)

LETTER FROM GREYBIRD.

Dear Junia and Ingle Nook Folk,—It is so long since I wrote you last that I scarcely know where I left off, or where to begin again. Anyway, the story of "The Man's Duty Around the Home" has continued, and stretched out, till the most of you must be heartily sick of it. That was a good letter by Duskie. The life she pictured was almost ideal, or would be if love were let to rule, and we all said, not "your work," and "my work," but "OUR work." At the same time, we have to remember that there is a great deal of human frailty in the world, and a great deal of selfishness, and a lot more of the great I AM, even amongst people who profess to love each other. To go back a bit, I have a word to say to "Another Wolf," who said that a man who would help his wife in the house was a sissy (I don't like that word), and not fit to take part in public life. Bosh! She didn't know much, for we are told that he that is faithful in little is faithful also in much,—not that I think that housework is of little consequence, but we often see people who strive to attain something whereby they may receive honor and praise, and perhaps neglect their duty in some other way which they consider more common. In my humble opinion, I consider it is those who do whatever their hands find to do, with all their might, who are the ones most fitted to hear the call, "Come up higher!"

Windmill Power is Growing in Popularity

For pumping, and it is not equalled by any power.



Thousands of farmers who have done their first power pumping by gasoline engine have become tired of it, and are buying windmills.

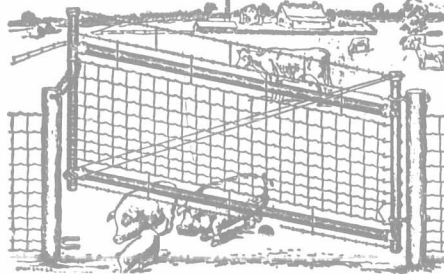
You can save the cost of a BAKER in one year.

The cost of gasoline, oil, batteries and repairs in pumping for 150 head of stock and the average farm home with a gasoline engine will buy a BAKER Back-gear'd Ball-bearing Pumping Mill every year.

You can't afford to waste both money and your time. Look into this proposition. Send for catalogue and list of satisfied users.

The HELLER-ALLER COMPANY, Windsor, Ont.

"I wish....." "I WISH I had bought "Clay" Gates instead of those I did buy," so said a farmer who bought the common kind of iron gate. Buy this spring gates that O. A. C., the Ottawa Model Farm, the Macdonald College Farm, gates that almost all the leading stockmen of Eastern Canada buy, namely



Clay STEEL FARM Gates

Clay Gates are made of tubular steel of large diameter; are tremendously strong, yet very light. Can't sag, bend, break, blow down, or rot. Are guaranteed. Can be raised as shown. 60 days' Free Trial.—One or a dozen Clay Gates sent at our expense for 60 days' Free Trial. 30,000 sold in 1912 on these terms.

Send for illustrated price list.

The CANADIAN GATE CO., Ltd., 34 Morris St., Guelph, Ont.

Strawberry Plants Grown on the shores of Lake Erie. 20 selected varieties. Catalogue free.

LAKEVIEW FRUIT FARM.

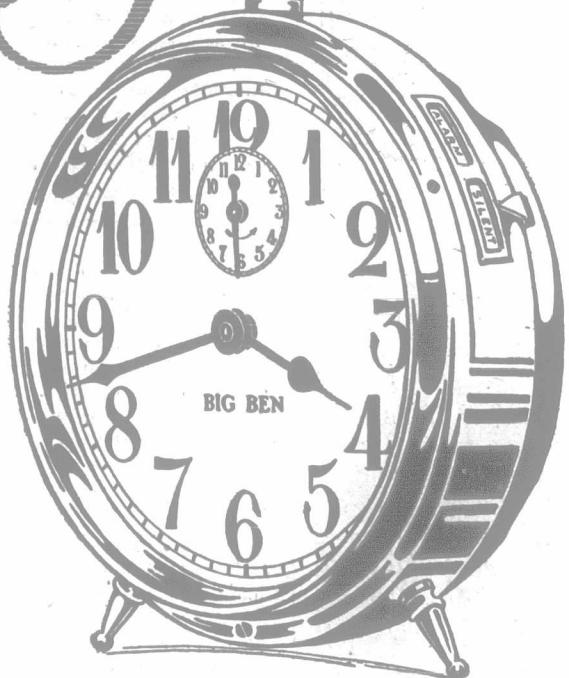
Grovesend,

Ontario.

For Sale or Exchange for horses or cattle, a property appraised at \$6,000; immediate possession. Would consider a good imported stallion, 5 to 7 years old, weighing ton. Address Box 20, Farmer's Advocate, London, Ontario.

David, who was afterwards king of Israel, had not stayed at home and attended to his lowly duties, such as minding the sheep, when he would far rather have been away with his brethren fighting the Philistines—if, I say, he had not attended to those humble duties, do you think he would ever have been called to fill the position he was afterwards called upon to fill? Coming down to our own time, I know a man who did not disdain, nor does he yet, to do little jobs around the house, and who can write M.P.P. after his name. Then take the Somers family, belonging to the British peerage, their motto is, "To be useful rather than conspicuous," and the present peer, who is, as I hear, taking up farming in Canada, is certainly giving practical effect to this motto. To another, who backed up "Another Wolf," I would say, that as long as the labor problem is as it is in Canada, the women will sometimes have to do men's work, and the men women's. There is no disgrace in any kind of honest work, so let us take to ourselves the motto, "To be useful rather than conspicuous." Then, as to Sherard McLeay, I think she is all right. Someone has said that no woman could do all the work she mentioned. Well, they can when they have to. I have known women who have done as much, and I have done it myself. Of course, I don't believe in women working like that all the time—it would be slavery—but if a couple starting in life are young and strong, and have great ambition to get a place of their own, I don't see why they should not make an extra-special effort for the first few years. It would be foolish, though, to keep at it too long, or till their health broke down, and it would be still more foolish to work like that all their lives, because they can never carry anything away out of this world with them. Then there was some-

Big Ben



The Men Who Make Big Ben

About 26 years ago a German clockmaker came from the East to La Salle, Illinois.

His only baggage was an idea—the plan of an automatic process he had invented, and which would make more alarm clocks and better alarm clocks than hand labor could ever hope to turn out.

With the backing of some local merchants and with a handful of clockmakers, a small factory was started on the edge of the town. —Beginnings were hard, competition intense. They weathered storms that would have knocked the fight out of weaker hearted men.

But when success at last came in sight they had built one of the best equipped clock plants in the world and one of the greatest names in the

American clock industry—Westclox, La Salle, Illinois.

Today, the Westclox people number 1,200. Every week day of the year they turn out 10,000 alarm clocks—alarm clocks of every description and style—their name "Westclox" is on every one of them and *Big Ben* is the king of them all.

Big Ben is the ideal of the Westclox people. He is their conception of what a perfect alarm clock should be. He is only two years old, but in this short time 6,000 Canadian dealers have already adopted him.

Only the finest materials are used in his making—he is strong, massive and punctual. His face is frank, open, easy to read. His keys big, handy easy to wind. He rings steadily for five minutes or intermittently for ten. He calls you every day at any time you say. If you have him oiled every other year, there is no telling how long he will last.

Big Ben's price is \$3.00 at any dealer's. If you cannot find him at your dealer's, a money order sent to *Westclox, La Salle, Illinois*, will bring him to you, carefully packed and express charges paid.

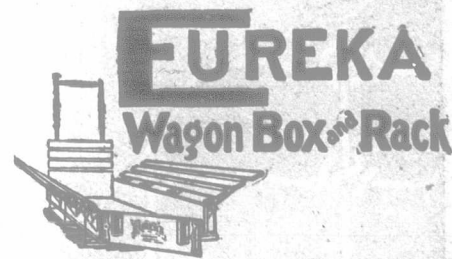
thing about a woman up North. I have mislaid the paper, but I gathered that she was doing her best to bring up her family right, but that her husband was pulling against her. Of such, I say, "God help her." She has a hard row to hoe, indeed. We are told that as the rooster crows, the young one learns, and that practice is more than precept, and so it is. She may do her level best, she may send or take the children to church and Sunday-school, and teach them the best she knows how, and yet one rash act of their father may bring all her efforts to nought, as it were. To her I would say, keep right on. You may never know the result here, but if you do your part faithfully, you will yet hear the "Well done, good and faithful servant." If this woman would write to me, I would like it very much. Junia will give the address.

Then, about the Convention. It was strange that nobody discussed it with you, Junia. I am sure it was worth it. Many and many a time I thought about it, and all I would write when I was able, but the time has gone by, till now it is an old story, and still I would like to say a few words yet. In the first place, why do they call the lady in the chair the "Chairman." It seems to me like an "Irish bull." Why cannot they say the "Chairwoman." "The lady in the chair," or the presiding officer?" and why do they put ladies to fill the position who have poor, weak voices, so that when a name is called nobody knows who the speaker is, and those who are taking notes have an awful time to find out who is who. And then the hall,—surely a better building could be got in all Toronto than the one on McGill street! It is dark, and dismal, and hot and stuffy. Nevertheless, women will put up with a lot, now they have got started, rather than do without their convention. There were lots of good things said at the last one, and Junia gave a very full report at the time. She just "sot" there and took everything in, and her hand fairly flew over the paper. There were one or two things that I would like to emphasize, however. One was the high-heeled boot put on the screen by Dr. Backus. Why, oh why, will women wear such monstrosities, and walk on stilts? If people would only refuse to buy such things, they would soon cease to be made. Then another was babies' "comforts" (so-called). When I see such things, I feel so towering mad that I feel like taking them and stuffing them into the mouths or down the throats of the people who give them to the babies. How would they feel if, when they were hungry, somebody stuffed a thing like that into their mouths? If babies are properly cared for, and fed at the proper time, no such trash is needed, and I am pleased to see that the doctors and dentists of Winnipeg are demanding that the Legislature take steps to prohibit the sale of the same. Then I wonder how many took notice of what was said regarding women being put on as school trustees; and I wonder how many having the property qualifications will take advantage of the same, and help along the good cause in their section. And what about a national dish for Canada? It is strange that nearly every country has a national dish but Canada, or, if she has, nobody there could name it. Junia remarked in her notes that she overheard one woman say regarding the Women's Institute, "One would think that it was an organization of the devil," judging from the criticism against it, and the opposition it has aroused in one particular neighborhood. Well, that is nothing. There never was a good thing yet but what provoked opposition. The Agricultural College at Guelph was the same, and who would dare say a word against it now? If it was something of no account it would never be noticed, but as it is important, everybody is forced to notice it, and as we will always have some "way-backs" amongst us, the kind who say that what was good enough for their fathers is good enough for them, and some, too, who feel a little jealous because women are coming into their own, and that they may perhaps be losing some of their former influence, or perhaps the women may be showing superiority over others when they get the chance,—these, and other things, may cause some to run our Institute down, but let me tell you all, it has come to stay, and as this animosity against it is general in nearly

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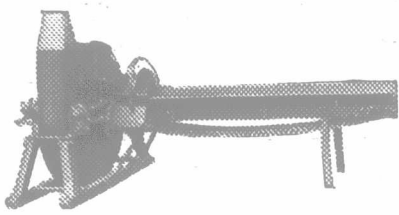
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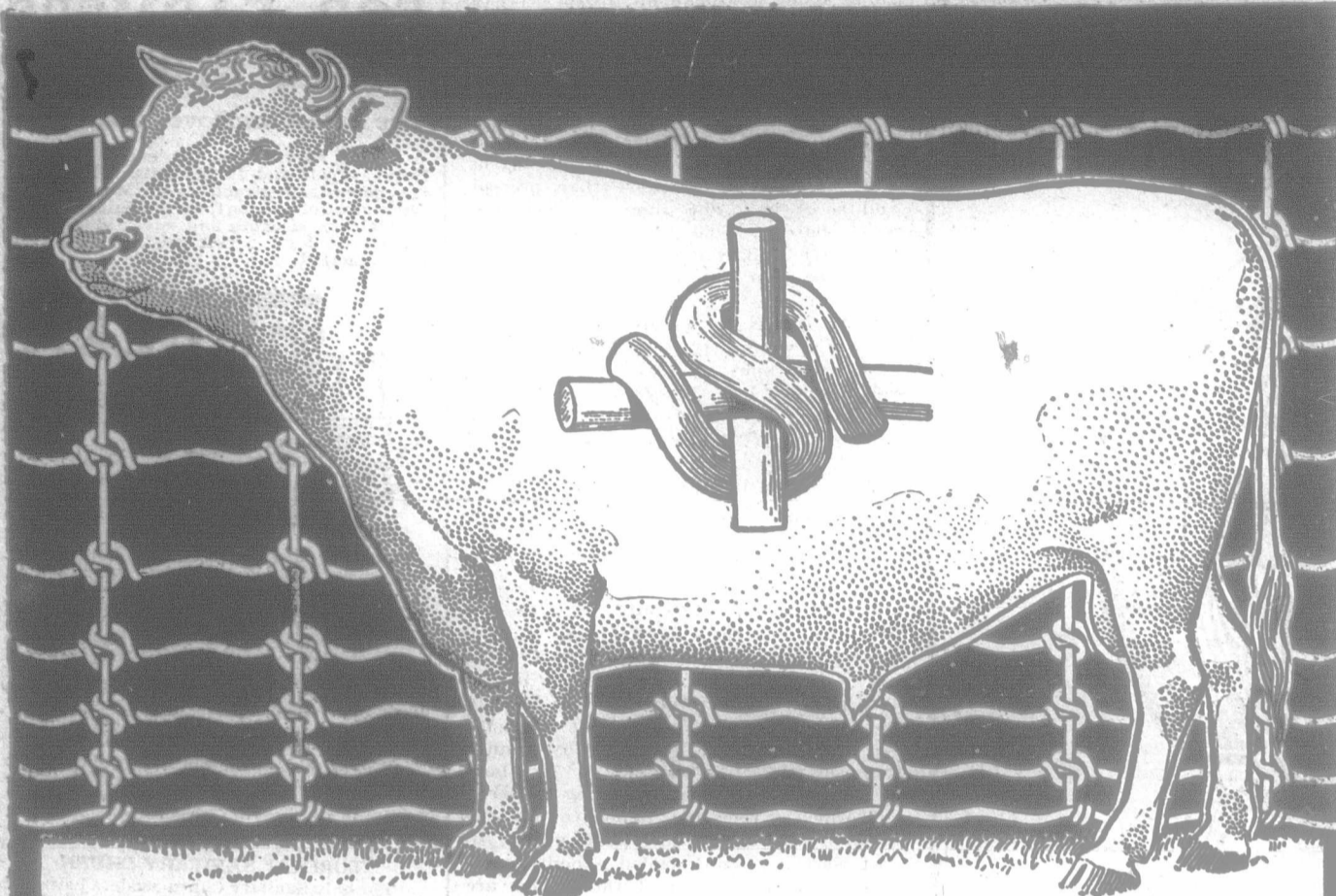
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YES! If your fences are "IDEAL" Woven Wire, made of large gauge No. 9 HARD STEEL wire, heavily galvanized and with the verticals and horizontals clamped together with the Ideal Lock—that CANNOT SLIP. Bull-strong; hog-tight; horse high—a REAL fence.

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All Large Gauge Number 9 Hard Steel Galvanized Wire

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For the ears that will cause you to

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What eye glasses are to falling sight, my invisible Ear Drums are to lost or falling hearing. Just as simple and common sense and on the same principle, for they magnify sound as glasses magnify sight. They are really tiny telephones of soft, sensitized material, safe and comfortable, which fit into the orifice of the ears and are invisible. They can be removed or inserted in a minute and worn for weeks at a time, for they are skillfully arranged for perfect ventilation and anti-friction. These little wireless phones make it easy to hear every sound distinctly, just as correct eye glasses make it easy to read fine print. Among the nearly 400,000 people whom they have enabled to hear perfectly, there has been every condition of deafness or defective hearing. No matter what the cause or how long standing the case, the testimonials sent me show marvelous results.

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have restored to me my own hearing—that's how I happened to discover the secret of their success in my own desperate endeavors to be relieved of my deafness after physicians had repeatedly failed.

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Improved prize winning strains. N. E. Mallory, Blenheim, Ont.

Seed Corn for Sale High germination test white cap yellow dent, grown on our own farm. TISDELLE BROS., Tilbury, Ont. Essex County.



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There are more than 220,000 Fords on the world's highways—the best possible testimony to their unexcelled worth. Prices—runabout \$675—touring car \$750—town car \$1,000—with all equipment, f.o.b. Walkerville, Ont. Get particulars from Ford Motor Company of Canada, Limited, Walkerville, Ontario, Can.

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every new place where it is started, I am going to quote a paragraph for those who need it.

"Have you enemies? Go straight on and mind them not. If they block up your path, walk around them, and do your duty regardless of their spite. A man (or woman) who has no enemies is seldom good for anything; he is made of that kind of material which is so easily worked that everyone has a hand in it. A sterling character, one who thinks for himself, and speaks what he thinks, is always sure to have enemies. They are as necessary to him as fresh air. They keep him alive and active.

"A celebrated character, who was surrounded by enemies, used to remark: They are sparks which, if you do not blow, will go out of themselves. Let this be your feeling while endeavoring to live down anything which those who are so bitter against you may bring up. If you stop to dispute, you do but as they desire, and open the way for more abuse. Let the poor fellow talk; there will be a reaction if you perform your duty, and dozens who were once alienated from you will flock to you and acknowledge their error."

I do not know who wrote that, but I have kept the clipping by me for a long time, and I think it just suits our Institutes and those who speak against them. Now, I think I have said about enough for once. I had intended to bring up a little about what was said about school-teachers at the Convention, also Arthur Hawkes' speech about emigrants, but I am afraid I have taken up too much space already. Also, I would have liked to touch on the new subject introduced by Junia recently, "The High Cost of Living," and as I think it is not so much the "high cost of living," as the "cost of living high," I would like to hear the opinions of the members of the Ingle Nook upon it; also about how much can they keep their houses on. Yours sincerely, GREYBIRD.

About your question re the term "Chairman," Greybird, probably the word is used rather impersonally, without regard to sex. Years ago, a woman who wrote a book was called an "authoress," one who wrote poetry a "poetess," and so on. Now these words are seldom seen.

I have read your little enclosed note, asking advice about your garden arrangement, with much interest. Of course, tastes differ; people must choose what, to themselves, seems beautiful. Personally, I think your idea of a lawn, with an irregular flower-border, delightful. You can grow a great mass of flowers in such a border, especially if it is three or four feet wide, with little "capess" jutting out, easily and gracefully at intervals. The straight path seems to suit the situation, and would be charming if quite enclosed by long borders of flowers. I see that you have almost accomplished this already. Be sure to use plenty of old fertilizer in your borders. There is nothing like it to produce luxurious growth.

By the way, I suppose, Greybird, that, since the "Mending Basket" gave notice that the "Man's Work About the House" topic was closed, we should have barred the first part of your letter out. However, since your letter was addressed to "Ingle Nook," and arrived long before the announcement appeared, I have taken upon myself the responsibility for letting it appear in full. However, I think, with you, that the discussion has lasted long enough, so, positively, this will end it.

Trade Topic.

SINGLE FARE FOR EASTER VIA CANADIAN PACIFIC RAILWAY.

Return tickets will be issued at Single Fare between all stations in Canada, Port Arthur and east, also to Niagara Falls and Buffalo, N. Y., Detroit and Sault Ste. Marie, Mich. Good going March 20, 21, 22, 23 and 24. Return limit March 26, 1913. This is an excellent opportunity for a trip at moderate expense, the return limit being exceptionally long for an event of this nature. Full particulars from any C. P. R. agent. See that your tickets read via C. P. R.



This Hoist Is Safe - It Locks Itself!

Here's a great time saver—a great work saver! Does everything—from hoisting engines, wagon bodies, and hogs, down to stretching wire fence. Straps up the load—holds it up alone! Saves time, money, muscle, in 40 different ways. Can't be beat—can't let go

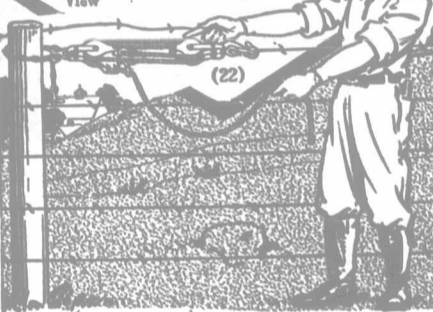
JUMBO Safety Hoist and Wire Stretcher

Earns Cost—Costs Little. The hoist lifts loads like ordinary block and tackle. But the minute you let up on pull-rope the automatic locking device of the Jumbo grips onto the pull-rope and it's fast. The only hoist that elevates, lowers, locks and unlocks all with one rope! The heavier the load the tighter that grip. It's the grip that can't slip! It treats all ropes alike, whether they're old, new, wet or frayed. Adjustable to different sizes of rope.

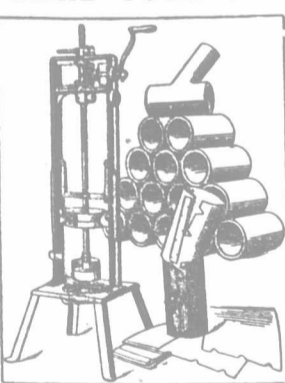
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Hall Hoists are made in nine different sizes; capacity 400 lbs. to 4 tons. Mail your name and your dealer's for our new labor-saving Catalog. Do it today! We'll tell you how to see hoist without sending money!

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Strawberry Plants that will grow improved strains, standard varieties, list free. **ONTARIO NURSERY CO., WELLINGTON, ONTARIO.**

To let **Improved Section in Alberta** Would let on shares to reliable farmer. **ELIZ. HUSBAND, 129 Main W., HAMILTON, ONT.**

Gossip.

SCOTTISH SHORTHORN SALES.

At the Perth Show and Sale, Feb. 25th and 26th, 112 females sold for an average of \$160, the highest price being \$1,835, for the roan first-prize yearling heifer, Orange Blossom 22nd, by the 1,000-guinea bull, Collynie Marshal, out of Orange Blossom 15th, and consigned by J. & W. Peterkin, Dunglass. The purchaser was Wm. Duthie, Collynie, the runner-up being Mr. Casares, the noted South American exporter. The \$500 mark was twice passed for other females. There was a good trade for bulls. Notwithstanding adverse circumstances, 340 head sold for an average of \$305. The highest price realized was 1,400 guineas (\$7,154), for the roan yearling, Lothian Augustus, fourth in his class, consigned by the Earl of Rosebery, sired by Millcent Chief, dam Augustine II., by Silver Mint, and purchased by Wm. Duthie, Collynie, at the auction sale, for 1,400 guineas (\$7,154). The first-prize bull in the senior-yearling class, Star of Dawn, shown by J. J. Moubay, sire Proud Victor, was taken by Mr. Casares, at 1,000 guineas.

LONDON SHIRE SHOW.

The thirty-fourth annual Shire Horse Society's Show was held in London, Feb. 25-28. The entries totalled 646. In a fair class of yearling colts, first prize was awarded D. Massey's Crumleigh Sensation, by Moor's Kitchener; second place was given F. E. Muntz, for King's Warrior, by King of Tandridge. This colt was bought at the recent Tring sale for \$1,835. Two-year-olds were a wonderful class, 116 being entered. The premier honor fell to Sir Walpole Greenwell's Champion's Goalkeeper, purchased at Lord Rothschild's Tring Park sale, a fortnight previously, for 4,100 guineas (approximately \$20,951), later awarded the male championship. In the three-year-old class, first award went to Sir Arthur Nicholson's Blacklands King-maker, another of the Tring Park purchases, which cost 1,750 guineas. Next to him came E. & J. Whinnerah's Warton Dray King. In the four-year-old class, first place was given Messrs. Whiteley's Primley Bellivore, second being T. W. Ewart's Dunsmore Royal Premier. The supreme champion female was Sir Walpole Greenwell's Dunsmore Chessie.

T. H. Hassard, of Markham, Ont., reports the trade in Clydesdale and Percheron stallions, for so early in the year, as exceedingly satisfactory. From his large and high-class selection of breeding horses, he has made very many sales, and from the fact that he is the most extensive importer in Canada, of Clydesdales particularly, he has still a big selection for intending purchasers, many of which were prizewinners in Scotland, as well as at Toronto and Guelph, which means that for draft-breed character, style of top, depth of rib, quality of underpinning, and faultless movement, he can show the ideals of the breed. Among those now on hand is the big, flashy, toppy show horse, Imperial Chief (imp.), a brown four-year-old son of the noted sire, Imperialist. This is one of the tops of the 1912 importations to Canada. Another, same age, is the black, Sir Manuel (imp.), by the Lanark premium horse, Earl of Angus, dam by the popular breeding horse, Royal Ensign, grandam by Macgregor. He is a horse of great style and superb quality, and has five numbered dams. Another great colt of character and quality, with five numbered dams, is King of the Saxons (imp.), a bay, rising three years, by the world-renowned Baron of Buchlyvie, dam by that sire of champions, Rozelle, grandam by Macgregor. A lot of space could be utilized elaborating on the fashionable breeding and high-class quality of the entire lot. The selection ranges in age from two to eleven years, some of them over the ton in weight, and many of them tried and proven. There is one bay four-year-old Shire stallion over the ton in weight, four Percheron stallions, one gray and three blacks. Parties wanting a stallion can not be disappointed in visiting Dr. Hassard's barns at Markham.

"Potash Pays"



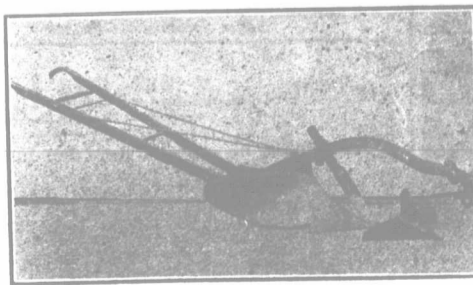
The Wail of the Starved Potato

Look at that poor shriveled-up, good-for-nothing potato. He is wailing because he is starved to death, and the man that grew him is wailing because he is not making the money he should out of his farm. What is the reason? Simply because this potato IS starved. Look at Mr. Potash-Raised Potato. See how jolly and fat he is! He and hundreds of his fellows are growing fat and clean and shapely to bring his grower a good profit, and all because of POTASH. The poor skinny potato is starved to death because his grower uses a low-grade fertilizer. This grower does not understand that every crop, say of 300 bushels of potatoes eats from the soil approximately 60 lbs. Nitrogen, 40 lbs. Phosphoric Acid and 105 lbs. of POTASH. Note that this is three times as much POTASH as Phosphoric Acid. The low-grade fertilizer contains but 2 per cent. POTASH and 6 to 8 per cent. Phosphoric Acid. Surely this is not three times as much POTASH. Any agricultural expert in the country will tell you that it is far better to use a 10 per cent POTASH fertilizer.

THIS APPLIES TO ALL CROPS IN CANADA

It makes no difference what crops you raise, you'll find the ordinary fertilizer does not contain the amount of POTASH necessary to secure the largest possible crops from your farm lands. Here is what you, Mr. Farmer, should do if you wish to make more money from your crops: When buying fertilizers, insist that your dealer give you a 10% POTASH fertilizer. If he has not got it, and you have to use a low-grade fertilizer, use enough POTASH to increase the amount to 10 per cent. of POTASH. Our agricultural experts will tell you just how to do this free. It is simply, easily and quickly done, and will bring you many, many times the first cost in a larger harvest. Ask the Agricultural Department at Ottawa if this is not so. Or, if you so desire, you can mix your own fertilizer at your own home. Our experts will tell you how, free. You can buy POTASH from your dealer. If your dealer has not got it, give us his name and we will sell to you direct, as we have POTASH ready for immediate delivery, stored in storehouses in Montreal, St. John, N. B. and Toronto. Write to-day for free booklet and prices. Don't starve your crops. Feed them and they will feed you and your pocketbook. "POTASH PAYS." Write us to-day for free booklets.

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Plow No. 17.

A GREAT FAVORITE.

This plow is very similar to the No. 21, but is somewhat heavier and stronger. It runs and holds easy. Capacity 10 to 12 in. up to 8 in. deep. In recent years it has rapidly gained favor with farmers throughout Ontario, being very popular as a general-purpose plow. Shipped with knife, coulters, extra share and wrench. Skimmer and wheel supplied when ordered. Write for catalogue, fuller information and price list to:

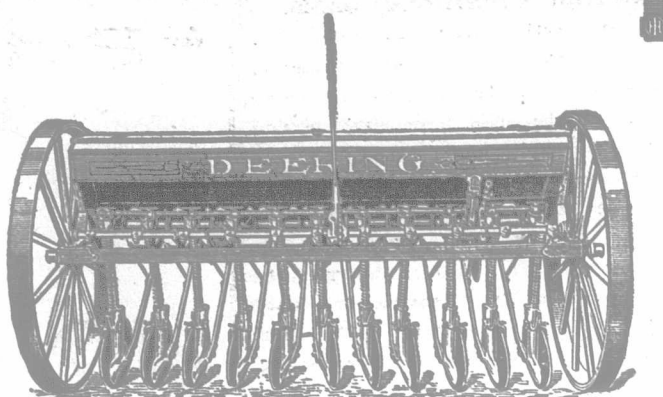
BRUCE AGRICULTURAL WORKS,
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A Deering Drill Is Always an Asset on a Canadian Farm

It is a very satisfying thing to know that a machine which has been purchased with money earned at the expense of much toil and close application, has turned out to be a real money maker, doing more than has been claimed for it. The Deering single disk and hoe drills are such machines. Under close scrutiny, they will be found to have more improvements of real practical value than any of the drills on the market today. They will do not only what is claimed for them, but more than can be listed here, to satisfy a purchaser while in actual use.

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- Pulls lighter than any other drill;
- Has a grain box with greater capacity than any other drill;
- Has a double run force feed for large or small grain or seeds;
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- Has a scraper which keeps the furrow open until the seed has been deposited;
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Has hoes with points specially adapted for entering the ground;
Has pressure bars which prevent the hoes from sinking lower in soft ground than they are set to do by the lever;
Has a lever which places hoes in line or zigzag;
Can be changed to a broadcast seeder by simply turning a lever so that the seed passes through the broadcast box instead of the rubber tubes.
The Deering line includes drills, disk, peg, and spring-tooth harrows; cultivators, land rollers, etc. See the I H C local agent for catalogues and information, or write the nearest branch house.

International Harvester Company of Canada, Ltd.

EASTERN BRANCH HOUSES

At Hamilton, Ont.; London, Ont.; Montreal, P. Q.;
Ottawa, Ont.; St. John, N. B.; Quebec, P. Q.
These machines are built at Hamilton, Ont.



The Hoe Drill

Is equipped with hoes which are held at an even depth in hard ground by spring pressure;

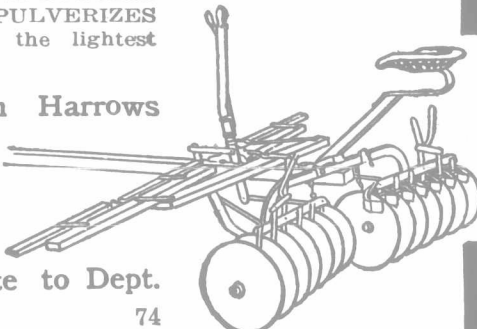


Prove the "BISSELL" by Its Work

Do the gangs on your Harrow crowd together and raise out of the ground if it is hard? They won't do this on the "Bissell." The "Bissell" is so designed that THE GANGS CAN'T CROWD OR BUMP together no matter how hard the ground may be. Tough soil won't stick the "Bissell." It stays right down to its work and pulverizes the ground thoroughly. We ask you to take a "Bissell" out into the field and test it beside other Harrows. Then you

will HAVE PROOF that it is A SUCCESS ON HARD LAND—THAT IT PULVERIZES THE BEST—and that it is the lightest draught.

Post yourself fully on Harrows before buying. We put our name on every Harrow so that you will know it is genuine. Ask your local dealer, or write to Dept. W for free Catalogue.



T. E. Bissell Company, Limited, Elora, Ont.

Seed Oats

- American Banner at 60c per bush.; bags extra.
- Irish White, at 60c per bush., bags extra.
- Sensation, at 65c per bush., bags extra.
- American Beauty (new), at 80c per bush., bags extra.
- Sheffield Standard, at 60c per bush., bags extra.
- New Century, at 65c per bush., bags extra.
- Swedish Giant (new), at 85c per bush., bags extra.
- Regenerated Abundance, at 85c per bush., bags extra.
- Tartar King, at 60c per bush., bags extra.
- Daubeney at \$1.10 per bush., bags extra.
- PEAS—Early Centennial, at \$2.00 per bush., bags included. Multipliers, at \$2.00 per bush., bags included. Lakefield White, at \$1.75 per bush., bags included.
- GOOSE WHEAT—\$1.25 to \$1.50 per bush., bags extra.
- BLACK BARLEY—Hullless, at \$1.50 per bush., bags extra.
- O. A. C. 21 BARLEY—Fine sample, \$1.00 per bush.; 10 bush. lots, at 90c; bags extra.
- TIMOTHY SEED—Pine Tree, at \$3.00 per bush., bags included.
- RED CLOVER—Fancy No. 1, at \$18.00 per bush., bags included. Red Clover, No. 2, at \$15.00 per bush., bags included.
- LUCERNE OR ALFALFA—No. 1, at \$12.00 per bush., bags included.
- ALSYKE—No. 1, at \$18.00 per bush.; No. 2, at \$17.00 per bush., bags included.
- Cotton Bags, at 25c each; 3 bush. Bags, at 35c.

Ask Us About Seed Potatoes.
Established 45 years ago.

Hewer Seed Co.
GUELPH, ONTARIO

TWO HOURS OF YOUR SPARE TIME

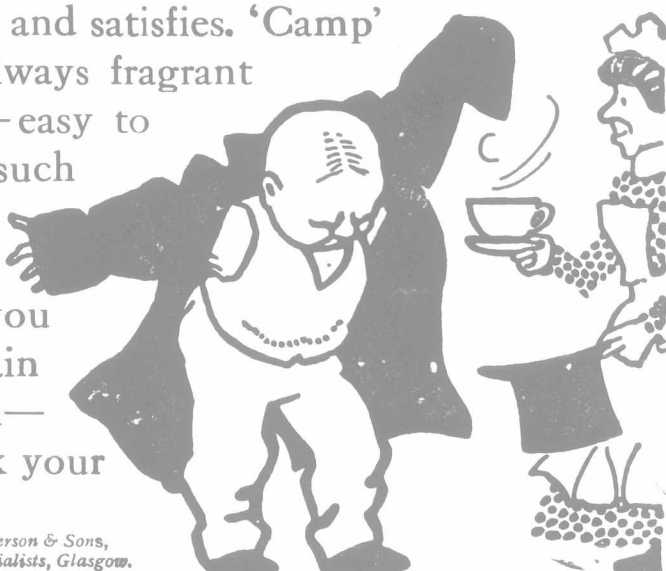
and 25c. will get you the best \$4.00 pair of shoes for man or woman ever made. Write for particulars to the Brantford Shoe Company, Brantford, Ontario

Write for our new Instructive Illustrated Catalogue on Spraying and Apple Evaporating
It's free. Fruit Machinery Co., Ingersoll, Ont.

'CAMP' COFFEE

The Morning Rush!

'CAMP' COFFEE puts things right instantly—it soothes and satisfies. 'Camp' Coffee is always fragrant and fresh—easy to make and such a delicious flavour that once tried you want it again—and again—always. Ask your grocer.



R. Paterson & Sons,
Coffee Specialists, Glasgow.



125-Egg Incubator and Brooder Both for \$13.75

If ordered together we send both machines for only \$13.75 and we pay all freight and duty charges to any R. R. station in Canada. We have branch warehouses in Winnipeg, Man. and Toronto, Ont. Orders shipped from nearest warehouse to your R. R. station. Hot water, double walls, dead-air space between, double glass doors, copper tanks and boilers, self-regulating. Nursery under egg tray. Especially adapted to Canadian climate. Incubator and Brooder shipped complete with thermometers, lamps, egg testers—ready to use when you get them. Five year guarantee—30 days trial. Incubators finished in natural colors showing the high grade California Redwood lumber used—not painted to cover inferior material. If you will compare our machines with others, we feel sure of your order. Don't buy until you do this—you'll save money—it pays to investigate before you buy. Remember our price of \$13.75 is for both Incubator and Brooder and covers freight and duty charges. Send for FREE catalog today, or send in your order and save time. Write us today. Don't delay.

WISCONSIN INCUBATOR CO., Box 244, Racine, Wis., U. S. A.

Gossip.

Clydesdales were shipped from Scotland for Canada, the first week in March, consigned to Reay Bros., Marcellin, Prince Albert, Sask.; Thomas Wilkin, Brantford, Ont., and Welsh, Mackenzie & Co., Calgary, Alta.

Hodgkinson & Tisdale, Beaverton, Ont., importers and breeders of Clydesdale and Percheron stallions and mares, report the following recent sales: To Stewart & Parker, of Elliott's Corners, Simcoe county, Ont., we sold the grand young Clydesdale stallion, Baron Blucher (9527), sired by Royal Baron (imp.), one of the most noted sons of Baron's Pride. To J. H. Readman, of Cookstown, Ont., the good breeding horse, Hillheads Premier (imp.) (7598) (13525), a grand type of a Clydesdale. In the stud, he has proved himself to be a sire of merit.

Volume 30, of the British Hackney Studbook, has been issued, and a copy received at this office, thanks to the Secretary of the Hackney Horse Society, Frank F. Euren, 12 Hanover Square, London, W. This volume contains 434 pages, and pedigree records of 310 stallions and 583 mares, a total of 893 entries. The members of the Hackney Horse Society number 1,970. The demand for Hackneys for export during the past year has been brisk, horses of this breed having left the United Kingdom for Argentine Republic, Belgium, Canada, France, Germany, Holland, Italy, Japan, Russia, Spain, South Africa, Switzerland, Uruguay, and the United States.

Trade Topics.

E. R. Ulrich & Sons, Springfield, Ill., who have for years advertised in this paper choice ensilage corn of the Mammoth White, Improved Leaming, and Yellow Dent varieties, report their stock this year as very choice. If interested, see page 458.

HOMESTEADERS', SETTLERS', AND COLONIST EXCURSIONS TO THE WEST.

Those taking advantage of above 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.

Homeseekers' rates will be in effect each Tuesday, March 3rd to October 28th, inclusive, 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 \$35, Edmonton and return \$43, and other points in proportion. Return limit two months.

Each Tuesday during March and April, the Canadian Pacific will run Settlers' Excursion trains to Winnipeg and West, for the accommodation of settlers travelling with live stock and effects, a colonist car will be attached to the settlers' effects train. This car will leave Toronto on regular train at 10.20 p. m., arriving at West Toronto it will be attached to settlers' effects train as mentioned above.

For those not travelling with stock and effects, special colonist cars will be attached to regular train leaving Toronto at 10.20 p. m., and run through to Winnipeg without change. No charge is made for accommodation in colonist cars.

Tourist sleeping cars are also operated on regular train leaving Toronto 10.20 p. m.

One-way Colonist Rates to Vancouver, Victoria, Seattle, Wash.; Spokane, Wash.; Portland, Ore.; Nelson, B. C.; Los Angeles, Cal.; San Diego, Cal.; San Francisco, Cal., etc., will be in effect daily, March 15th to April 15th, inclusive.

Full particulars from any C. P. R. Agent, or write M. G. Murphy, District Passenger Agent, Toronto.



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From upon the Buckeye uniform work is d could be...
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Get the story in man...

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have you not...
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home, where...
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\$7.50, deliv...
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Two pairs of...
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your bath an...
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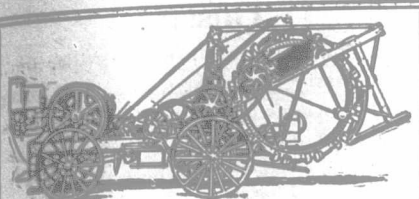
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Plough...
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AGEN

Forged steel...
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Not sold in...
profits. Ter...
THOMAS...
PLEASE



Getting On In The World?

It's a mighty fine thing to know you're getting on—to have a business of your own that pays you a large, steady income, and keeps growing from year to year.

Hundreds of men have realized this. They've made their dreams come true by going into the contract ditching business with a

BUCKEYE TRACTION DITCHER

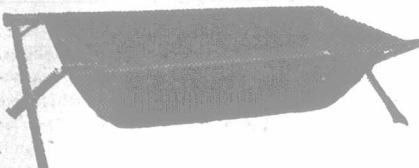
These men make from \$15 to \$18 a day now, and are busy 9 to 10 months in the year.

From 100 to 150 rods a day, depending upon the soil, is not unusual with the Buckeye and the ditches are absolutely uniform in size and perfect to grade. The work is done far better and faster than it could be done with ordinary hand labor.

Now, if these men are making big money with the Buckeye, why can't you? Isn't it worth looking into?

Get the facts now. Catalog T tells our story in a clear, concise unexaggerated manner. Write for it TO-DAY.

THE BUCKEYE TRACTION DITCHER CO. Findlay, Ohio.



"A Godsend to Humanity"

On a Saturday evening when you pull out that old wash tub to take your bath, and the only part of your body which you can get in it is your feet, have you not thought of that nice bath of your friends in the city and wished you had it in your home, where you could sit right down and splash the water around you? BUY ONE OF OUR FOLDING BATH TUBS and you have it for \$7.50, delivered to any part of Ontario.

Inside measurements of our bath tub are 5ft. long, 2ft. wide, 18 inches deep and weighing 15 lbs. Two pairs of water are all that are required to give one a proper bath, as the bottom rests on the floor, permitting the water to come to the body. This bath tub can be taken to the kitchen range for your bath and when finished with it, rolled up and set away in a corner.

FOLDING BATH TUB CO., LIMITED Ganoque, Ontario.

TRADE MARK REGISTERED

Ploughs—Wilkinson

U. S. S. Soft Centre Steel Moldboards, highly tempered and guaranteed to clean in any soil. Steel beams, steel landsides and high carbon steel coulters. Clevises can be used either stiff or swing. Each plough is fitted especially with its own pair of handles—rock elm, long and heavy and thoroughly braced. The long body makes it a very steady running plough. Shares of all widths—specials for stony or clay land. The plough shows turns a beautiful furrow, with minimum draft and narrow furrow at finish. Ask for catalogue.

The Bateman-Wilkinson Co., 411 Limited Campbell Ave., Toronto, Canada.

No. 3 Sod or General Purpose Plough. 25 styles to choose from.

AGENTS \$24 A WEEK

R. M. King Made \$45 in 6 Days

15 IN ONE

Forged steel. Patented. Low priced. Sells to auto owners, farmers, mechanics in the shops and the home. Not sold in stores. No competition. Sales easy. Big profits. Ten-inch sample to workers. Write at once.

THOMAS TOOL CO., 2344 West St., Dayton, Ohio

PLEASE MENTION THE ADVOCATE.

Questions and Answers.

Miscellaneous.

Ringworm.

We have several head of cattle with ringworm around eyes, and have treated with a solution of turpentine, iodine, and carbolic acid, but to no avail. Would you kindly give a remedy?

J. C.

Ans.—See article in issue of March 13.

Building Henhouse.

1. I am building a henhouse 45 x 16 feet. I got the plan through your paper. I would like to build it high enough to allow for floor. Would seven feet be high enough at back or north side to allow for floor?

2. How would be the best way to brace it to keep it from leaning back or forward, or would it stand without? I am building it all with studding. Would you use matched lumber? I purpose boarding it with some cheap lumber and felt paper. The floor I have reference to is not the ground floor, but above, for warmth.

H. K.

Ans.—1. We think so.

2. We do not understand which type of house you are building, but do not think bracing is necessary. The floor alluded to is not necessary. Use matched lumber, or rough lumber, and batten the cracks.

Sheep Queries.

1. My farm is very rich and flat, but well drained. Can I look for reasonable success with sheep on it?

2. How many ewes can be profitably kept on one hundred acres, scarcely any other stock being kept?

3. Where can I obtain a good, reliable book, on sheep husbandry?

E. T. S.

Ans.—1. Sheep like fairly dry, upland pasture, but will do well with good care on comparatively level and heavy soil. If, as you say, your soil is well drained, you should have no difficulty in getting good results.

2. It is impossible to answer this question definitely. It depends largely upon the man in charge. It is better to commence on a small scale, and increase as success warrants.

3. "Modern Sheep Breeds and Management" may be had through this office at \$1.50, postpaid. A good bulletin on the subject may also be had by applying to the Dominion Department of Agriculture, Ottawa.

Land for Alfalfa—Compounding Fertilizers.

1. In reading Prof. Moore's address, "Alfalfa Experience," in February 27th issue of "The Farmer's Advocate," he says, "Assuming that the field was well chosen." Please explain to a beginner, what should be taken into consideration in choosing a field for alfalfa? What kind of material should be used to make caps for hay-cocks, and what could a person use to hold caps on, seeing it would take so many weights?

2. How much muriate of potash (50 per cent.) should be mixed with a 3.8.4. fertilizer to make it 3.8.10.?

YOUNG FARMER.

Ans.—1. The best soil for alfalfa is a high or rolling clay or upland. Canvas covers may be used. These may be purchased at some dealers. Canvas is fastened, not by weights, but by long, wooden pins, thrust into the pile.

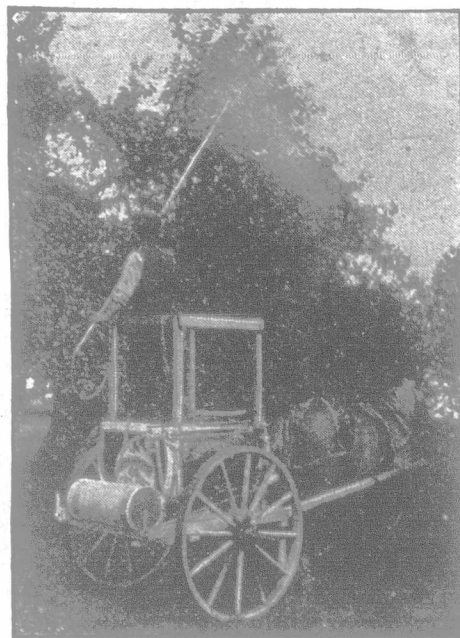
2. In 2,000 lbs. total mixture of 3.8.4. fertilizer, there would be 64 lbs. nitrogen, 160 lbs. phosphoric acid, and 80 lbs. of potash. This might be gotten from 400 lbs. nitrate of soda, 1,066 lbs. of acid phosphate, and 160 lbs. muriate of potash, with 374 lbs. of filler. In 2,000 lbs. total mixture of a 3.8.10. fertilizer, there would be 64 lbs. nitrogen, 160 lbs. phosphoric acid, and 200 lbs. of potash, gotten from 400 lbs. nitrate of soda, 1,066 lbs. of acid phosphate, and 400 lbs. of muriate of potash, and 134 lbs. of filler. This would mean an increase in the latter of 240 lbs. of muriate of potash. This is assuming that home-mixing is done.

"Earlie, why don't you let your little brother have your sled part of the time?"

"I do, ma. I take it going down the hill, and he has it going back."

Our sole business is the manufacture of Spramotors

That's the big reason why you only hear of Spramotors and ordinary spraying outfits now-a-days. The supremacy of the Spramotor in every class is unquestionable. It would be marvellous if we couldn't produce more efficient, economical and durable machines than our competitors—since they look on the manufacture of spraying outfits as a side line—while we have concentrated our capital, energies and brains on the perfecting of Spramotors for 17 years.



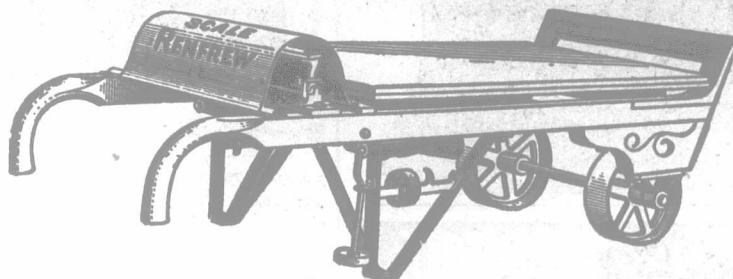
It does not matter what your spraying needs may be, there's a Spramotor specifically built for your purpose—a machine that will do more and better work than any other spraying outfit in its class—a machine that will give you endless satisfaction, because it is built to endure.

Hundreds of farmers have proven the H. P. Spramotor (see cut) to be a very profitable investment. The horse does everything but direct the nozzles. This machine can be operated by hand where preferred. Has 8 nozzles that cannot clog—the number can be arranged to suit requirements. PRICES range from \$6.00 to \$350.00. Equally effective for vineyards, row crops or grain work.

State requirements and we will forward interesting facts without placing you under obligation to buy.

SPRAMOTOR LTD., 1565 King St., London, Can.

SAVING THE FARMER'S PROFIT THE MISSION OF The RENFREW Handy Two-Wheel TRUCK SCALE



Daily loss—that's what inaccurate scales mean to the farmer. Loss on everything he sells by weight. Stop it now. Let the "RENFREW" do your weighing, and get every cent of profit on your produce that you should get. "RENFREW" accuracy is guaranteed by the Canadian Government—which means protection against loss through underweighing. The "RENFREW" weighs anything from one pound to 2,000 pounds—and you can wheel it to anything you want to weigh. Are you interested? Mail this Coupon Now for this Free Booklet, "The Profit in the Last Ounce." It tells interestingly about the business side of farming—and how money is saved with a "RENFREW" Handy Two-Wheel Truck Scale.

THE RENFREW SCALE CO. Renfrew, Ontario

AGENTS:

- SASKATOON—Western Distributing Agency.
- CALGARY—Reynolds & Jackson
- EDMONTON—Race, Hunt & Giddy
- MANITOBA—Clare & Brockest, Winnipeg

Mail Now Coupon

Please send me free of charge the booklet, "The Profit in the Last Ounce".

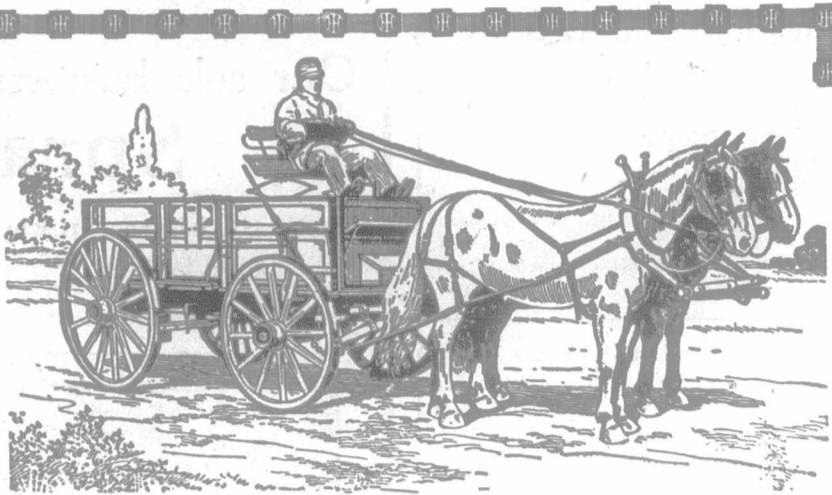
Name..... Address..... THE RENFREW SCALE CO. Renfrew, Ontario

When writing advertisers please mention this paper.

IHC Wagons Are As Good As They Look

TO really know the value of a wagon you must know of what material it is made, how it is built and about how many years of satisfactory wagon service you may expect. When you know all there is to know about IHC wagons it is safe to say that your next wagon will bear the IHC trademark—the stamp of quality and honest value.

Every piece of wood used in IHC wagons is carefully selected and air-dried. Only in air-dried lumber does wood retain its full strength and elasticity. All steel or iron is selected with the same care to secure the greatest possible strength. Thorough knowledge of the strain each part must stand is necessary because a wagon, like a chain, is no stronger than its weakest part. Every part of IHC wagons



The finishing touch, the thing that adds to the life and appearance of an IHC wagon, is pure paint. Cheap paint may improve the appearance of a wagon for a short time, but after that is a positive detriment. Only pure paint is used on IHC wagons. It fills the pores of the wood, prevents shrinking, swelling, warping and twisting, and acts as a wood preservative.

There are many other reasons why IHC wagons are such good wagons, why owners say they are the best and most satisfactory. Have the IHC local agent show you an IHC wagon, or, if you prefer, write the nearest branch house for catalogues.

International Harvester Company of Canada, Ltd

EASTERN BRANCH HOUSES
At Hamilton, Ont.; London, Ont.; Montreal, P. Q.;
Ottawa, Ont.; St. John, N. B.; Quebec, P. Q.
Built at Chatham and Petrolia, Ont.



Petrolia Chatham

has the same relative strength. The men who build IHC wagons know why one part is built stronger than another, know the exact strain it will have to bear. This same thorough knowledge has enabled them to build a wagon of light draft, which puts the least strain on the horses, without impairing the strength or durability of the wagon.



Gossip.

The Forester Farm, at Oakville, Ont., is advertising for sale a couple of young Aberdeen-Angus bulls, and two young cows. Their herd did quite well last year, and they have a few more than they care to carry over. This farm reports a particularly fine crop of Dorset Horn lambs this year that are doing well, and they are prepared to sell several of the ewes or ewe lambs to make room for young stock.

H. C. Hamill, Box Grove, Ont., breeder of Ayrshire cattle, ordering a change of advertisement, writes: Although early in the year, I find myself sold short of females, stock going as far west as Saskatchewan. The get of Woodroffe Comrade 20329, have done remarkably well, six daughters having already qualified in R. O. P., with no failures, all making good records in milk, and none under four-per-cent. butter-fat. The bulls for sale are all from good dams, are good individuals, and will be sold worth the money.

A WORLD'S AYRSHIRE RECORD.

On March 2nd, 1913, the Ayrshire cow, Daisy of Ferndale—26785—, qualified in the Canadian Record of Performance test, with 15,533.9 lbs. milk, and 590.3 lbs. butter-fat, equal to 688.7 lbs. butter, given in 365 days, and is due to freshen April 25th, next. This cow is owned by W. C. Tully, Athelstan, Que., and is slightly over four years of age when she entered the test. This cow now holds the yearly record for milk and butter in the four-year-old class, outstripping Bessie of Rosemount, owned by Geo. A. McFadden, Bryn Mawr, Pa., that held, for some time, the world's record, with 14,102 lbs. milk, and 578.17 lbs. fat.

R. Honey & Sons, Brickley, Ont., breeders of Holsteins and Yorkshires, write: We have a very choice bacon-type boar, fit for service, for which we will (for immediate sale) take \$25. We also report the sale of our herd bull, Lakeview Burke Payne, to W. A. Anderson, of Peterboro, Ont. He should be a good purchase, as he has a good number of high-testing sisters that average 30.63 lbs. of butter in seven days. His dam has two 30-lb. sisters also. To D. McPhail, of Sonya, we sold a grandson of his (from his only daughter, that has freshened yet). She gave 2,900 lbs. of milk before she was two years old. The sire of the calf is from my Calamity bull, that has two R. O. P. daughters, and two R. O. M. daughters to date. We have a couple more bulls fit for service of similar breeding.

Volume 34, of the British Shire Stud-book, has been issued from the press, and a copy, by courtesy of Secretary J. Sloughgrove, 12 Hanover Square, London, received at this office. This volume is the largest in the series, containing 1,322 pages, with pedigree records of 1,048 stallions, and 3,813 mares, a total of 4,861 entries in one year. Official export certificates were issued during 1912 for 455 Shires, sold to go abroad, the United States taking 231, or more than half the number, Canada 85, Australia 60, Russia and South Africa being next in order of numbers. The Shire Horse Society is evidently in a very prosperous condition, its membership numbering 4,200. A list of 53 sires of prizewinners in 1912, shows Locking Forest King at the head, with 37 winners; 35 firsts, and 28 seconds. The second horse in the list is Redlynch Forest King, son of Locking Forest King, and the third is Tatton Dray King, by Drayman.

Trade Topic.

Every house should have a bath-tub, and this has been made possible by the Folding Bath Tub Co., Limited, Gananoque, Ont., whose advertisement appears in this issue. Look up the advertisement. It is worth while, for the tub is not high in price, and may be carried to any room in the house.

DO YOU KNOW

THAT WORN-OUT LANDS MAY BE MADE PRODUCTIVE AND PROFITABLE BY THE JUDICIOUS USE OF THE RIGHT KIND OF FERTILIZER

NOW IF YOU HAVE A PIECE OF LAND THAT WON'T GROW ANYTHING BUT WEEDS TALK WITH US ABOUT IT AND LET US SUGGEST THE RIGHT FERTILIZER

WE CAN ASSURE YOU THAT WE CAN SHOW YOU HOW TO USE FERTILIZERS WITHOUT EXPENSE. YOUR OWN WILL PAY CONSIDERABLE FREELY. IT IS OUR BUSINESS TO KNOW ENQUIRIES PROMPTLY ANSWERED AGENTS WANTED FOR TERRITORY NOT TAKEN UP THE W. A. FREEMAN CO. LIMITED HAMILTON, ONTARIO

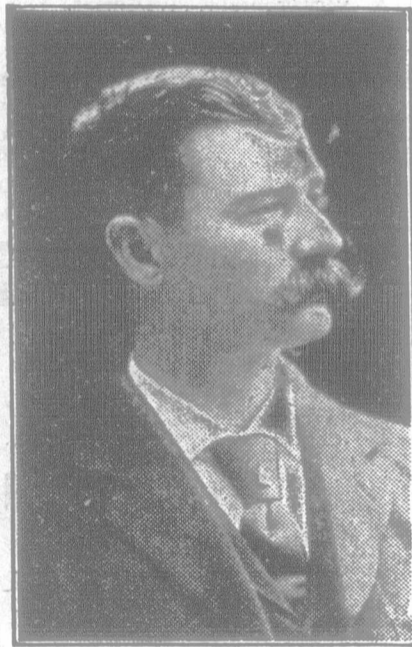
POTATO GROWING COSTS CUT IN TWO

EUREKA PLANTER
Doubles your potato profits. Minimizes labor. Uses Eureka Potato Planter. Opens the furrow, drops seed accurately any distance or depth desired; puts on fertilizer if wanted, covers perfectly and marks for next row. Always plants uniform depth. Requires only one man. Driver sees seed drop. Made in three sizes, for 1 or 2 rows.

The Eureka Mulcher and Seeder
A mulcher, smoothing harrow, cultivator, weeder and seeder all combined. Forms dust mulch and conserves moisture. Three sizes, 8, 10 and 12 ft. Lever with pressure spring regulates depth of cut. Pulverizes the soil. Levels the ground. Teeth are flat and can be removed to cultivate in rows. The driver rides. Seeding boxes can be easily attached to sow grass seed, alfalfa, oats, etc. Adjusts for seeding various quantities. Teeth cover seed thoroughly, either shallow or deep. Economical in price. Prompt shipments from branch near you. Send for free catalogue today.

E. H. COMFORT
Box 24
North Pelham, Ontario.

FARMERS!
Why Not Buy an Acme Drain Tile Machine and Make Your Own Tile?
The easiest running and most practical hand-power tile machine made. A boy can operate it as well as a man can. No pallets or paper tickets required. The greatest money maker on the market. For catalogue and price list, write **WILLIAM G. JOY**, Dept. C, Napance, Ont.



My barns at Weston, Ontario, and Brandon, Manitoba, are now full of

PERCHERON

Mares and Stallions

Ages from one year old to five years old. Blacks and grays. Weights from 1,600 to 2,100 pounds, of the very best style and quality and breeding France produces. They are of the big thick kind. See them before you buy. I do my own buying in France, ship large numbers, have no partners to divide profits with. Will take small profits so feel sure it will save you money to get prices before you buy. No reasonable offer will be refused. Terms to suit. Many of the mares are safe in foal. For further particulars, write

J. B. HOGATE
West Toronto, Ontario

Planet Jr.

2-row Cultivator cuts half the time and work out of farming

Get better results without drudgery and long hours. You don't have to be a slave to your work when you use the Planet Jr No. 72. No other implement in large crops saves so much time, money, and labor.

[No. 72] Two-row Pivot-wheel Cultivator, Plow, Furrower, and Ridger cultivates at one time 2 rows of potatoes, corn, beans, etc. in rows 28 to 44 inches apart. Works like a charm in check-rows, crooked rows, and rows of irregular width. Never leaves open furrows next to plants. Cultivates crops up to 5 feet high. Covers 2 furrows of manure, potatoes, or seed at one passage. Can be equipped with roller-bearings, spring-trip standards and discs. Fully guaranteed.

FREE! An instructive 64-page illustrated catalogue Write today **S L ALLEN & CO** Box 1108F Philadelphia

WRITE FOR NAME OF OUR NEAREST AGENCY

FREE-FARM ACCOUNT BOOK

Bickmore's Farm Account Book will be sent free to any farmer who will tell us who and where he is. This book is arranged to keep all accounts in simple form—more simple and certainly more practical than trying to remember them; shows what to charge against crop production; has a laborer's time record; and section for personal accounts. **64 pages, for ink or pencil.** Not a cheap affair. Its quality is in keeping with **BICKMORE'S Gall Cure**, a soothing, healing salve, the old-time reliable horse remedy. Horses are now too valuable and too high priced to take chances of losing their services. **Bickmore's Gall Cure** heals and cures **Horned and Saddle Galls; Rope Burns; Cuts, Scratches, Grease Heel, etc.** You don't have to lay the horse off. **Bickmore's cures while the horse works.** Great thing for sore teats in cows. The work-horse trade mark on every box. None genuine without it. Be sure to ask for **Bickmore's Gall Cure** when you go to buy and do not take a substitute. **Farm Account Book** is ready. Send today.

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Prince Charles (12573); rising 3 years, dark bay with stripe in face. This horse is bred in the purple, being rich in blood of Prince of Wales (873) and Darnley (222). Inspected and enrolled; write: **JOS. W. HOLMAN, Columbus, Ontario**

Questions and Answers.

Miscellaneous.

Various Queries.

1. Is alsike clover as good to plow down for fertilizer as red clover, and how many pounds per acre should be sown?
 2. In growing alsike clover for seed, what is the best method of harvesting to secure the largest per cent. of seed?
 3. In growing Dutch clover for seed, what soil is the most suitable, how is it harvested to get all the seed, and how many pounds of seed should be sown per acre?
 4. Last spring I started with two colonies of bees. I increased them to six colonies in all, but lost about six swarms by their going to the woods at times when I was at work. Would you advise me to use entrance guards, or alley traps, to prevent this next summer? They would swarm last year without a queen cell being left in the hive at all.
 5. Three years ago we built a cement-block house, with chimneys on the outside walls. When the wind is on the sides the chimneys are, there seems to be no draft. Are the chimneys so porous as to allow the air to go through, and thus stop the draft? Can you suggest anything to wash the chimneys with that will stop this? I have used cement and buttermilk as a wash; also used galvanized iron over the top to prevent wind from coming down. Would putting the furnace and kitchen-range pipes into one chimney make any difference?
 6. We have a young Holstein cow, freshened her second time, and at first she filled a pail with milk, but is falling off in milk to less than half of her first flow. She gets all the feed she can eat, and yet not go off her feed, of cut straw and corn, and chopped oats two parts, barley one part, wheat one part, and pulped roots and hay. Is this the fault of the cow not being of a milking strain, or would you use some different feed?
 7. In putting in a furnace in a farmhouse, would you put in hot water or steam? Are these better bricked in, or covered with asbestos? Would you advise the names of some companies where I could write for prices. H. A. H.
- Ans.—1. It does not grow quite as large a crop. Sown alone, six pounds is a fair seeding.
2. Some cut with the mower and rake up, cutting always while the dew is on. The best method is by using a mower with a table attached, or a self-rake reaper.
 3. Use a table on the mower. Sow from four to six pounds per acre on heavy, rich soil.
 4. It would likely be advisable to control swarming.
 5. Is the flue large enough? It would seem that much was due to the direction of the wind, so some of the difficulty is due to outside conditions. It is not likely that the chimneys are porous enough to stop the draft.
 6. The feed is good. She is likely naturally a cow of short lactation periods.
 7. Get this information from furnace companies advertising in this journal.

Veterinary.

Fatality in Horses.

Horses sheath swelled. I gave him saltpetre, but as he got no better, I sent for my veterinarian next day. His throat was swollen. The veterinarian left a liniment and powders, and the swelling went down. The appetite failed, and my veterinarian visited him again, and left more medicine to be given four times daily. The horse began to feel uneasy and showed colic pains, and the veterinarian came again. These symptoms lasted for a few days, when he died. What was the matter, and how should I have treated him? B. C. P.

Ans.—In the first place, the horse suffered from disease of the throat (a form of influenza sometimes called quinsy). This, later on, became complicated with digestive derangement. Your veterinarian did all that could have been done. V.

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The above is typical of what you will find at Cairnbrogie. Our Clydesdales excel in weight, finish and bone. Our Hackneys for high action, style and breeding, for the past ten years out-ranking all others at the leading shows of America, showing conclusively that the best Stallions from the British Isles are to be found in our stables, and frequent importations guarantee at all times a large selection and satisfactory choice. Safest guarantee. Reasonable prices. Remember, that whether you want a Mare or a Stallion, Colt or matured animals, Cairnbrogie is to-day, and always has been, headquarters for the best. Champion Stallions of both breeds now in our stables.

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Present offering. King of Fountain Park (10220) a choice three-year-old stallion. Mertoun's Duchess (33701), a beautiful two-year-old filly. D. Hill, Staffa, Seaforth G. T. R.

Clydesdales, Standard-breds, and Short-horns. Our herd numbers about 40 head. Headed by the great stock bull, Trout Creek Wonder. Ten bulls for sale, from 6 to 14 months old; all good colors and good individuals. DUNCAN BROWN & SONS, Walnut Grove Stock Farm, Iona, Ont.

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Questions and Answers. Veterinary.

Bladder Trouble.

Last spring a yearling filly in good order was turned out on pasture. During the summer she grew well, but became thin in flesh. She has continued unthrifty, and urinates frequently, passing about a cupful each time, of yellow, thick fluid.

W. H. L.

Ans.—There is chronic inflammation of the lining membrane of the bladder. It should be flushed out about every third day with a warm, non-irritating antiseptic, as a solution of boracic acid, 1/2 ounce to a pint of water. In addition, give her 1 ounce of tincture of hyoscyamus in 1/2 pint of cold water as a drench three times daily. It will be wise to have her examined by a veterinarian, to either confirm or disprove my diagnosis, as it is not possible to be sure without an examination.

Mud Fever—Crippled Pigs.

1. Pregnant mare has eruptions on heels and above the fetlocks.
2. Hog went lame on fore and hind foot of same side. His limbs are not swollen, and he can rise, but is very sore when he moves.

R. C.

Ans.—1. This is mud fever. Feed on laxative food. Make a lotion of 1 ounce each of acetate of lead and sulphate of zinc in a pint of water. Dress the parts three times daily with this, and, if possible, keep her out of slush and mud. As she is in foal, it will not be wise to give her a purgative.

2. The symptoms indicate rheumatism. See that he is kept in a dry, comfortable, and well-bedded pen, and that he has a wooden floor to sleep on. Rub the joints well three times daily with hot, camphorated oil, and give him 8 grains salicylic acid three times daily.

Miscellaneous.

1. Two-year-old heifer took diarrhea, passed large quantities of dark-colored liquid, seemed to have no control of her bowels, and died in two days.

2. Two-year-old heifer is not thriving well. She eats slowly, and I never see her chewing her cud. I feed turnips, straw, and oat chop once daily.

G. H. B.

Ans.—1. This was acute diarrhea. A drench composed of 2 ounces laudanum and 4 drams each of catechu and prepared chalk, in a pint of water, given every four hours for a few doses, would probably have saved her.

2. Give her a purgative of 1 lb. Epsom salts and 1 ounce ginger. Follow up with a tablespoonful three times daily of equal parts powdered sulphate of iron, gentian, ginger, and nuxvomica, feed hay instead of straw, and give her chop at least three times daily.

3. The slight symptoms given indicate partial paralysis, probably caused by stomach trouble. A purgative of 6 ounces Epsom salts and 2 drams ginger, followed by 20 grains nuxvomica three times daily, would probably have saved her.

Miscellaneous.

1. I have a sheep whose jaws swell every spring, and at the same time she salivates.

2. What is the best food for weak lambs that will not suck?

3. Heifer discharged blood for several days, and then inverted the rectum. I replaced it and strapped the tail down, but when the tail is loosened the inversion recurs.

J. S. D.

Ans.—1. This is a form of catarrh. Apply mustard, mixed with equal parts oil of turpentine and warm water, to her throat, and then wrap the throat well with flannel bandages. Give her 20 grains chlorate of potassium and 5 grains quinine, three times daily.

2. The mother's milk, fed with a spoon.

3. This is hard to treat. Give her 1 pint raw linseed oil. Wash the protruded rectum with a warm solution of alum 1 ounce to a pint of water, then return it and fix the tail as you suggest. Loosen tail about every four or five hours to allow defecation, use the alum water again, and proceed as before. Keep bowels loose by giving raw oil. If inversion does not recur when tail is loosened, inject a little alum water into rectum.



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As I am feeding no steers this winter I have filled my stables with imported fillies, selected personally in Scotland; many in foal to such sires as Hiawatha, Sir Hugo, King's Champion, Sir Rudolph, etc. Fourteen have been sold, eighteen of the best are still on hand—the selections being made more on account of price than superiority. There are no culls in the lot. Send for pedigrees and particulars before buying elsewhere. Inspection invited.

D. McEACHRAN.

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They have arrived—my third importation for 1912, stallions and fillies. I have now the biggest selection in Canada, and a few topers in stallions. High-class breeding and high-class quality and low prices.

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OF ALL the losses owners are liable to, none can be less prevented or modified in any manner whatsoever than loss by foaling. Notwithstanding the best care and attention, although a mare may have foaled many times successfully, she is always a cause of worry and anxiety to the owner through the fear of losing by death the often very high cash value of the Beast, not to mention service fee, care and expenses incurred for no avail. Why risk such loss when a payment of a few dollars in premiums would cover you should it happen. Reduce the amount of the RISK by insuring, only risking thereby the loss of the Premium if the mare foals allright. We issue 30 days, 6 months and 12 months policies with or without cover on foal.

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Questions and Answers. Miscellaneous.

Fertilizer for Buckwheat.

What fertilizer would I require for about one acre of buckwheat, "Silver Hull," on a worn-out, sandy (inclined to be gravelly) soil?

Ans.—Try 120 lbs. of nitrate of soda, 300 lbs. of acid phosphate, and 120 lbs. of muriate of potash.

Wants Bees.

Could you give me the address of some beekeeper who has colonies for sale, as I wish to buy one or two colonies, to see if they will prove profitable in this northern country?

T. R. H.

Ans.—Parties having bees to sell should advertise through these columns.

Harness Oil—Itchy Tails.

1. Kindly advise, in one of your issues, a lasting harness dressing or first-class oil.

2. Hair of horses' tails is getting very short (not thin). They occasionally switch and rub. Shall be obliged for remedy.

D. N.

Ans.—1. We know of nothing better than harness oil, which may be obtained at a harness-shop or hardware.

2. Clean the tails out thoroughly, and if necessary wash them well with soap-suds. Be sure no lice are present. Dress daily with a solution of 40 grains of corrosive sublimate to 1 quart of water.

Rape Blighted.

What is the cause of rape blighting brown and purple. We had a field of twelve acres, half of which was manured with a good coat; the other half fair condition. After sowing, both pieces came up fine, a marked appearance, however, in favor of the manured piece. After it had got about eight inches high it began to blight in spots, which gradually extended over the whole field. No difference could be noticed between the part manured and the part that was not manured, nor between the higher or lower part of field. Field had a gradual slope north, but quite dry and level; dark, heavy, clay loam.

G. J.

Ans.—This may have been due to some kind of organism or fungus, but might also occur as a result of being sown too thickly. Sow rape in drills, and cultivate it like turnips.

Fertilizers.

What mixture of fertilizer should one use, in addition to, say, eight loads of barnyard manure, per acre, for corn? Also, what amount for turnips, mangels, and potatoes, with about ten loads of manure, unrotted? Also best time and way of distributing same, land slightly inclined to be light.

F. L.

Ans.—It is somewhat doubtful whether, if the land is in fair condition, anything besides the manure would be needed for corn. However, you might try a mixture of 100 lbs. of nitrate of soda, 300 lbs. of acid phosphate, and 100 lbs. of muriate of potash. For mangels and turnips the same could be applied, and for potatoes, substitute sulphate of potash for muriate. Of course, the same amounts of the nitrogen, phosphoric acid and potash, could be gotten from mixtures of other ingredients. Apply the muriate and acid phosphate, and half the nitrate broadcast when preparing the soil, the remainder of the nitrate may be applied when plants are nicely up.

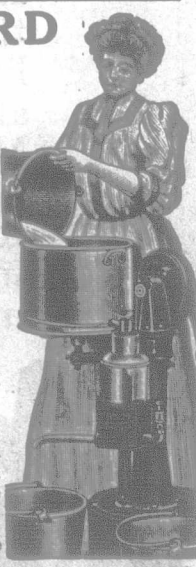
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DISPERSION SALE OF REGISTERED SHORTHORNS

Also Horses, Pigs and Barred Rocks. Property of Ira B. Vannatter, Ballinafad, Ont. Erin, C. P. R. and Georgetown, G. T. R., shipping stations.

ON Wednesday, March 26th, '13 COMMENCING AT 1 O'CLOCK

14 Shorthorns—10 bulls and 4 females, all of choice breeding. Foundation of herd was Actress 6th, imported, and Pearllet Butterfly, by the great imported bull, Baron Camperdown; followed by War Eagle, a Toronto silver medal bull. Royal Kitchener, imported; Village Earl, imported; and present stock bull, Roan Chief, also included in sale. Conveyances will meet morning trains at Erin, C. P. R., and Georgetown, G. T. R. If stormy, sale will be held under cover. TERMS: eight months' credit on approved joint notes, or 5 per cent. per annum off for cash. Fowl and fat hogs, cash.

Catalogues on application BENJ. PETCH, Auctioneer, Glenwilliams, Ont. IRA. B. VANNATTER, Proprietor, Ballinafad, Ont.

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, Props., John Clancy, Manager. Cargill, Ont., Bruce Co.



SCOTCH SHORTHORNS

One High-class Imported yearling bull. 10 bull calves, from 7 to 16 months old. 40 heifers and young cows, all by imported sires. Also some Imp. yearling heifers. MITCHELL BROS., BURLINGTON, ONT. Farm 1/4-mile from Burlington Junction.

5 Shorthorn Bulls 5—We have for sale at moderate prices five Scotch Shorthorn bulls, including one of our herd bulls. Also a number of high-class heifers and heifer calves.

A. J. HOWDEN & CO., Columbus, Ont. Myrtle G. T. R. & C. P. R. Long-distance 'phone

SHORTHORNS of breeding and quality. Our present offering: One grand young cow with calf at foot; also heifers, old enough to breed, got by Mildred's Royal. No bull to breed to. Will sell cheap. Geo. Gier & Son, Waldemar P. O., Ontario.

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With a view to securing to its many patrons the very best obtainable in the way of immigrated

Farm Laborers

THE SALVATION ARMY

is this year putting forth special efforts in the rural and outlying districts of

THE BRITISH ISLES

From such districts will come the very class of men, boys, and housekeepers required by Canadian farmers.

Apply by letter at once to—

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20 ALBERT STREET, TORONTO, ONT.

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MAJOR MCGILLIVARY

296 CLARENCE STREET - LONDON, ONT.

Messrs. Hickman & Scruby

Court Lodge, Egerton, Kent, Eng.

Supporters of Pedigree Live Stock of All Descriptions. Draft Horses a Specialty.

Draft horses are high, and feed is low; imported horses bought well are easily the best value for money that can be bought in horse flesh. Write us for full particulars. We can give highest references, many being to entire strangers who have dealt with us by correspondence only.

Aberdeen Angus

2 young bulls and 2 young cows (to calve soon) for sale. Best of stock.

Write at once

FORSTER FARM, OAKVILLE, ONT.

For Sale—Angus Cattle. Some nice yearling bulls and good females, all ages.

Use an Angus bull to cross and get the kind the butcher likes. J. W. BURT & SONS,

Hillsburg P.O., R.R. No. 1, Ont.

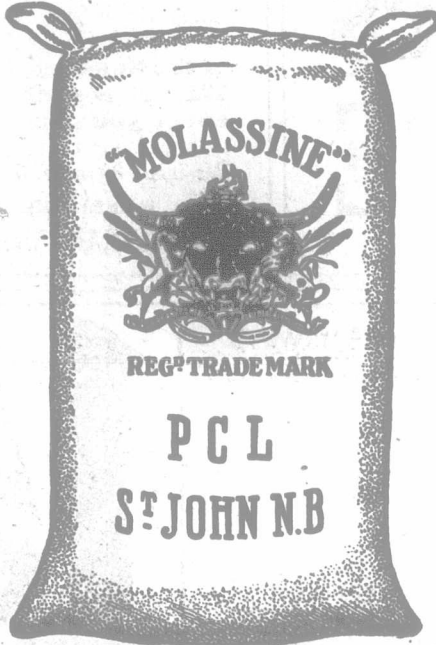
Aberdeen-Angus Cattle Mature early Best of breed

Several young bulls for sale. Apply MANAGER "GRAPE GRANGE" FARM

Clarksburg, Ont.

GOVERNMENT ANALYSIS

Send to the Department of Inland Revenue, Ottawa, and ask for Bulletin No. 241 on Registered Stock Foods. It will be sent you FREE of all costs. In this Bulletin you will find the analysis of the different livestock preparations. You will also find that MOLASSINE MEAL, referred to on pages 6, 7, 12 and 13, is found to be 50% above the guarantee in protides and fat—and below its allowance of fibre or waste matter.



MOLASSINE MEAL

Do not confuse MOLASSINE MEAL with other molasses preparations. There is only ONE MOLASSINE MEAL and that is made in England. It is recognized all over great Britain as the greatest Livestock Feed known to science.



See that this Trade Mark is on Every Bag.

The leading veterinary surgeons all recommend it—The Mounted Department of the British Army use it—The Large Carting Companies, Omnibus Companies and owners of horses doing heavy work or for show and breeding purposes, all use it. It prevents and eradicates worms, enables you to get the best work out of horses—Cows will give more milk with greater percentage of butter-fat—Steers can be fattened for market quicker and cheaper and all your stock will be in better condition when fed regularly with MOLASSINE MEAL.

MOLASSINE MEAL can be obtained at most leading Feed Dealers—but if you can't get it from your dealer write us direct and we will arrange with him to supply you.

How To Make More Money
We want you to write to-day for our Free Booklet on feeding livestock and all about MOLASSINE MEAL.

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LONDON, ENGLAND

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Shorthorns—Six choice young bulls fit for service, at reasonable prices, from good milking strain.

ROBERT NICHOL & SONS
Hagersville Ontario

SHORTHORNS and SWINE—Have some choice young bulls for sale, also cows and heifers of show material, some with calves at foot. Also choice Yorkshire and Berkshire sows. ISRAEL GROFF, Elmira, Ontario.

ATHELSTANE SHORTHORNS
For sale: Five choice young bulls, sired by Roan Chief (imp.) =80685=. They are a choicely-bred lot, and will be priced right; also a few heifers. They are of good milking dams. WM. WALDIE, R. R. No. 2, Stratford, L.-D. phone.

SECURE ONE OF OUR PREMIUMS.

15 SHORTHORN BULLS 15

We have been breeding Shorthorns on this farm for over 60 years, and I never saw a better lot of young bulls for sale than I have at the present time. Nearly all of the best Scotch breeding reds and roans, from 10 to 20 months old. Also a few females and several registered Clyde fillies. Prices within the reach of all. Will quote prices, freight paid to your nearest station.

Claremont Stn., C.P.R., 3 miles.
Pickering Stn., G.T.R., 7 miles.

JOHN MILLER, Brougham, Ont

10 SHORTHORN BULLS 10

If in need of a bull those that we are offering should interest you. They range from 8 to 14 months old, and are nearly all bred direct from imported stock. We also have females of all ages. Bell phone. Burlington Junction, G. T. R. W. G. PETTIT & SONS, Freeman, Ontario.

Questions and Answers. Miscellaneous.

Pay for Sundays.

I am hired by the month. I have always thought twenty-six days a working month, not including Sundays, but I have worked Sundays as well. Am I entitled to any pay for my Sunday work?
D. W.

Ans.—A man hired by the month must do his necessary Sunday chores without extra pay. It is quite common for arrangements to be made whereby the man has every second Sunday off duty.

Probably Abortion.

We have five cows that have freshened before time. Three freshened from three to four weeks before time. We saved two of these cows' calves, and three cows of the herd went their full time, and their calves were all right. In a month's time, two more calved, one two weeks before time, and we saved the calf, and the other one five weeks, and lost her calf. Would you call this abortion? I might say the afterbirth came away same as any ordinary cow. As our cows are in the R. of P. test, we have been feeding rather heavy. Do you think 1 1/2 lbs. of oil cake too much for an ordinary cow? Some have said this might be the cause.
J. B.

Ans.—The oil-cake feeding is not very heavy. We would certainly take all precautionary measures, fearing abortion.

Pure-bred Holsteins.

Will you kindly inform me whether or not a Holstein can be registered through crossing with a pure-bred sire, and if so, how many crosses?
W & S.

Ans.—Holstein cattle can not be graded up to be eligible for registration in this country. Pure-bred Holstein-Friesian cattle refers to black and white cattle already registered in the Holstein-Dutch-Friesian and Holstein-Friesian Herdbook, such as are descended from them in direct line, both as to sire and dam, and such imported animals or their descendants as are registered in the Netherlands, Friesian, or North Holland Herdbooks, proved by the affirmation of breeder of the animal satisfactory to the Inspector.

Colic.

I have a good horse which has been working in the woods all winter. Every few days he will come in the stable all right, but in a few minutes will take colic, paw, and lie down, and at those times faces is soft. I have been giving him baking powder and turpentine, and in a short time he is all right again. What is the cause? What can I give him?
C. R.

Ans.—These are attacks of indigestion. Feed carefully on hay, oats, and bran, all of good quality, and in limited quantity. Mix bran or chaff with the oats to prevent these being eaten too fast. Do not give too much cold water at a time, especially when the horse is warm. Feed a tablespoonful of ginger in his feed each night as a preventive. When he has an attack, give 4 drams fluid extract of belladonna and 1 1/2 ounces each of laudanum and sweet spirits of niter in a pint of cold water as a drench.

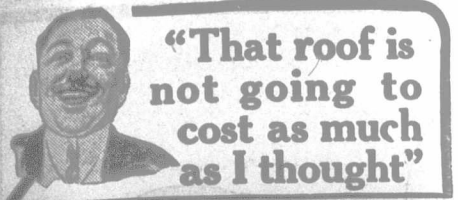
Sore Shoulders—Surveying.

1. I have a mare whose shoulders get sore after being in harness two or three days, although I am bathing the shoulders after taking off harness. I am also using sweat pad with holes cut in it. Would like to do the best for her, but cannot let her stand idle all the time. She is about ten years old.

2. Also let me know which way is the quickest and surest way to take measurement of one acre of land, and what the measurements are.
J. A.

Ans.—1. Give rest if possible. Get a collar which fits without a pad. Keep the collar perfectly clean. Bathe the shoulder well three times daily with cold water. Make a lotion of one ounce each of acetate of lead and sulphate of zinc in a quart of water. Dress three times daily with this, and before putting on the collar apply a little oxide-of-zinc ointment. If ulcers form and refuse to heal, apply a little butter of antimony once daily with a feather.

2. Use a surveyor's chain. One hundred and sixty square rods equal one acre.



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Roofing in Rolls and Shingles

The users of this modern, easy-to-lay Certain-teed Roofing are saving thousands of dollars—on every roll and crate of shingles is a Certain-teed label of Quality—a 15-year guarantee of Durability.

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Roofing on all kinds model city, factory, and farm buildings, we offer it to you at 25c. We prefer to have you go to your lumber, hardware or building material dealer, who will gladly get you a copy free. If you write us, enclose 25c to cover cost, postage and mailing.

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Boo Spavin

Cure the lameness and remove the tumor without scarring the horse—have the part looking just as it did before the blemish came.
Fleming's Spavin Cure (Liquid) is a special remedy for soft and semi-solid blemishes—Bog Spavin, Thoroughpin, Splint, Girth, Gapped Hock, etc. It is neither a salve nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be limited. Easy to use, only a little required, and your money back if it ever fails.
Fleming's Vest-Pocket Veterinary Adviser describes and illustrates all kinds of blemishes, and gives you the information you ought to have before ordering or buying any kind of a remedy. Illustrated free if you write.
FLEMING BROS., Chemists,
75 Church Street, Toronto, Ont.

GLENGOW
Shorthorns and Cotswolds
Our present offering in Shorthorn heifers and young bulls are modern in type and of richest Scotch breeding, and the prices are low; Cotswold Ewe and Ram lambs of high quality.
WM. SMITH & SON - COLUMBUS, ONT.
L. D. Phone

Woodholme Shorthorns
I have for sale a number of choice young bulls, from 8 to 14 months old (pure Scotch); also a number of heifers, 1 to 2 years old, of this level type, and richest breeding. G. M. FORSYTH, North Claremont, Ont.

Shorthorn Bulls and Heifers—I have a choice lot of young bulls and heifers in calf now to offer. Former sires, Joy of Morning (imp.) - 32070 - and Benachie (imp.) - 69954 - Present stock bull, Royal Bruce (imp.) - 55033 - (89009) 273853.
GEO. D. FLETCHER, R. R. No. 2, Erin, Ont.

Oakland—50 Shorthorns.
Offering for winter and spring trade, is six excellent bulls from ten months to two years old. Out of fine dual purpose dams and sired by our noted Scotch Grey Bull 72092. He is a beautiful roan and all quality, he is also for sale or exchange.
John Elder & Sons, Hensall, Ont. Station and P. O.

1854 Maple Lodge Stock Farm 1913
Am offering a very fine lot of young Shorthorn bulls just new. Excellent breeding and most from splendid milking dams. The kind that is needed.
House is one mile from Lucan Crossing, G. T. R.
A. W. SMITH, Maple Lodge P. O., Ont.

The Manor Shorthorns
Bulls sold, up to May bull calves. Have two good ones of that age for sale. Also heifers got by, and cows in calf to, one of the good bulls of the breed. Inspection solicited.
J. T. GIBSON, Denfield, Ont

Spring Valley Shorthorns
A few of the best young bull prospects we ever had. They will please you. Will sell females too. Visit the herd; we think we can suit you. Particulars on application.
KYLE BROS. - AYR, ONT.

Questions and Answers.

Miscellaneous.

Mushroom Bed.

How can I make a mushroom bed?
W. C. B.

Ans.—You must have a rich, artificial soil, and a steady temperature of from 50 to 75 degrees. Cellars are good places to locate the bed. Mix good horse manure, as free from straw as possible, with a fourth or fifth part of good garden soil. Put the beds in a well-drained, damp place, any size or shape desired, and ten inches deep. Pack the soil firmly and evenly, and leave it smooth. As soon as fermentation commences, the temperature will rise to probably over 100 degrees. When it falls to 80 degrees, the bed is ready for the spawn. Put pieces of spawn about the size of hens' eggs in holes 2 inches deep and 12 inches apart, and cover over.

Mare Loses Milk.

Will you please give me information regarding the following case: Have a mare eight years old, weight about 1,100 lbs. She was bred for the first time on July 20th, 1912, to a Clyde stallion, and is in foal. On the 24th of February, I noticed her udder filling, and now the milk drops from both teats continuously, and at times runs in streams. She has considerable swelling in front of udder. She is in good condition; is very hearty, and has no signs of illness. Has had work and plenty of exercise all winter. Has been fed on good, clean timothy hay and oats, with some bran. We have kept her idle and very quiet for the past five days on account of her present condition. Would like to know what is best to do, and what will likely be the result?
E. H. M.

Ans.—This occasionally occurs, and is not a favorable symptom. It sometimes occurs when the foetus dies, and in these cases the mare may, at full term, produce a small, somewhat mummified foetus. In other cases the foal is not dead, but is often weak when born, and in still other cases the foal is smart and strong. We cannot tell what causes this abnormality in many cases. All that can be done is to feed the mare on dry feed and give regular exercise. The administration of 1 dram of iodide of potassium three times daily tends to check milk secretion, but it is doubtful whether it is wise to give it. In most cases the administration of drugs is not advisable.

Building Stable.

I want to build a cement stable 18x36 feet. Please state how many yards of gravel and how many barrels of cement are required, also what height should be, and what thickness. Estimate cost of material and labor. I supply the gravel free. To keep hens in one end, would cement floors be suitable? One end for vehicles, two horse stalls, one cow stall, and balance of space for hens. Could you please give plan, with measurements? What height should loft be above cement to hold about three tons of hay?
SUBSCRIBER.

Ans.—Build the wall 9 feet high and one foot thick. It would require about 30 barrels of cement, and between 7 and 8 cords of gravel. Your contractor would be in a better position to estimate total cost. From figures given, you can yourself get cost of cement. Your horse stalls would need to be from 5½ to 6 feet wide, and the cow stall 3½ to 4 feet wide. This would take, say, 15 feet of the space in the center. Twenty-one feet would be left for poultry and other vehicles. We cannot tell how to allot this space, not knowing how many hens you wish to keep, or what vehicles you must house. A hen requires about four square feet of space. Figure out what space you require for the number of hens you wish to keep, and leave the remainder for vehicles. The weight of settled hay is generally reckoned at 7 to 8 lbs. per cubic foot, but you would need to provide more space than this. Besides, you would want the roof high enough that a man could work in the loft. You will find that if this is provided, the loft will hold more than three tons of hay. Cement floor is suitable for hen-houses, but rather expensive.

Amatite ROOFING

Why Practical Men Demand Amatite



ROOFING that needs paint every two years can't hold the market against Amatite—which needs no paint whatever.

Practical men know the great advantage of a roof that needs no painting. They know what a nuisance the painting is. They know how much it costs. They know how liable they are to neg-

lect to paint their roofs at the proper time.

Painted roofings are waterproof only where the paint is. Amatite is waterproof all the way through.

Amatite is sold in the usual convenient rolls of 110 square feet with a smooth lap where the mineral surface is omitted, so as to secure a tight joint. Nails and cement are packed in the center of each roll.

Free sample and booklet on request to nearest office.

THE PATERSON MFG. CO., Limited
MONTREAL TORONTO VANCOUVER ST. JOHN, N. B. HALIFAX, N. S.

LIVINGSTON'S OIL CAKE AND MEAL are guaranteed absolutely pure. They are made by the Old Patent Process—and will keep as long as you like. Careful tests have proved them to be the most easy-to-digest of all cattle feeds—95% goes to build muscle, tissue and health.

LIVINGSTON'S CAKE AND MEAL Make More Milk

and BETTER milk—FATTER and STURDIER CATTLE—HIGHER PRICES for the higher quality—and less EXPENSE in obtaining that quality.

The manufacturers of Livingston's Cake and Meal worked forty years on the problem of stock food before they produced these perfect foods—which are not so soft as to waste, yet soft enough to be thoroughly digestible. Your dealer will tell you Livingston's are better than any others on the market. Ask him—or write us direct—for full particulars.

Supplied in three grindings—Fine Ground, Pea Size and Nutted.
THE DOMINION LINSEED OIL CO., Ltd., Baden, Ontario

MALASOFAT A BALANCED FOOD

Wholesome, nutritious, palatable, digestible. Feed your milk cows "Malasofat" and increase your profits. "Malasofat" produces maximum results at a minimum cost. Ask your dealer, or send direct for information.

DAIRY MEAL

PARK FEED MILLING COMPANY, LIMITED
17 River Street Toronto, Ontario, Canada

I have SHORTHORN Bulls and Heifers, SHROPSHIRE and COTSWOLD Rams and Ewes, CLYDESDALE Fillies and Celts that are as good as I have ever had, and that I will sell for prices within the reach of all. We have been in the business 75 years, always in the front rank, and propose to keep that position. You cannot afford to buy without writing us for prices.
ROBERT MILLER, STOUFFVILLE, ONTARIO

Springhurst Shorthorns Four of the first prize Shorthorns at the late Guelph show, including the champion and grand champion fat heifer, were all sired by bulls of my breeding. I have now for sale ten young herd headers of this champion-producing breeding.
HARRY SMITH, HAY P. O., ONT. Exeter Station. Long-distance phone.

Shorthorns—Records show that cattle bought from the Salem herd won numerous ribbons the past season. We have others. Several young bulls are priced reasonably.
Eloa G. T. R. and G. P. R. J. A. WATT, Salem, Ont.

BRAMPTON JERSEYS

The spring trade is on; we are doing the largest business we ever did, chiefly with our old customers; young bulls and heifers from sires with tested daughters. Several imported cows and bulls for sale. Canada's Greatest Jersey Herd.

B. H. BULL & SON, Brampton, Ont.

Balaphorene Farm Jerseys Present offerings: Choice bull calves from three to sixteen months, at very reasonable prices for quick sale. **JOSEPH SEABROOK, Havelock, Ontario.**
For Sale—Jersey cows and heifers and bulls for exportation. All pedigree and herd-book stock. For further particulars apply to **A. T. SPRINGATE, Breeder and Exporter, Gorey, Jersey, Europe.**

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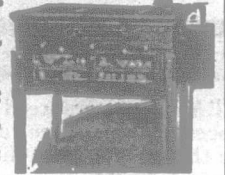
Poultry Experts say it is the most practical, helpful book on poultry raising published.

It contains the results of years of experience—tells how the most successful poultrymen make big money—how you can succeed with very little capital—how you can make your own brooder—how to construct your hen houses, coops, etc.—in fact every one of its 112 pages bristle with money making, money saving facts. No manufacturer ever put out such a book before. Think of it—75 of its 112 pages contain no advertising—just helpful information and beautiful illustrations that will interest and instruct.

You Want This Book

and we want you to have it. **It is Free** Just write a postcard for it today. Read how one man made \$12,000 in one year raising poultry. Get the benefit of the experience of others. Learn how to select your layers—what feeds are best—how to treat diseases, etc. We publish this big book and distribute it free and postpaid because we want every man, woman or child we start in the poultry business to succeed and make money. A little helpful advice and information at the start will prevent serious mistakes. Before you buy an incubator you will surely want to know about the 1913 Prairie State Sand Tray and other new improvements. See for yourself why

PRAIRIE STATE Incubators and Brooders



hatch and raise strong healthy chicks—the kind that grow into profits fast. Prairie State machines are endorsed by the leading experiment stations and agricultural colleges everywhere. Sending for the book does not obligate you. Write today. Ship your eggs to us and get highest market prices. **Gunn, Langlois & Co., Ltd.** Box 216 Montreal, Canada Manufacturers of the Prairie State Incubators in Canada.

Lump Jaw



The first remedy to cure Lump Jaw was

Fleming's Lump Jaw Cure

and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Adviser.

Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy.

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

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Wholesale and Retail

Write for literature and quotations on **DAVIES FAMOUS MIXED BRANDS (24)**
Muriate of Potash Acid Phosphate
Sulphate of Potash Bone Meal
Kainite Basic Slag
Nitrate of Soda Blood Meal
Sulphate of Ammonia Lime
Rock Phosphate Salt, etc., etc.

In bag, ton, carload lots.
High-grade materials. Low prices and easy terms. Special booklet, "Farm Davies Way," free. Patronize our agents.

THE WM. DAVIES CO., LTD.
West Toronto, Ont.
Commercial Fertilizer Department,
R. INNES, B.S.A., MANAGER.



Lump Rock Salt, \$10.00 for ton lots. f.o.b. Toronto
Toronto Salt Works, 128 Adelaide Street E.
G. J. CLIFF, MANAGER. Toronto Ont.

Ayrshires

Last chance. No females for sale but still have a few bulls, sired by Woodroffe Comrade whose first heifer in milk gave 11,392 lbs. milk, 480 lbs. butterfat in year; prices right. **H. C. HAMILL,** Box Grove, Ont. Locust Hill, C.P.R. Markham, G.T.R. and L.D. Phone.

Questions and Answers.

Miscellaneous.

Dogs.

Where can I get St. Bernard and Newfoundland dogs? **SUBSCRIBER.**

Ans.—Parties having these dogs for sale should advertise in the columns of "The Farmer's Advocate."

Breeds of Cattle.

1. Where can a reliable firm, raising English Durham bulls, be located?
2. What is the best breed for beef; also the best breed for milk?

3. Some farmers in our section claim that the English Durham is the best breed for beef. Do you consider this correct? **M. A. C.**

Ans.—1. The word "Durham," as applied to a breed of cattle, is now obsolete, "Shorthorn" being the recognized name of the breed at the present time. This breed is extensively advertised in our columns.

2 & 3. There is no truly "best" breed of cattle. Shorthorns, Angus, Herefords, and Galloways, all have their admirers as beef cattle in this country, and Holsteins, Ayrshires, Jerseys, and Guernseys, and French-Canadian cattle, are all someone's favorites in the milk-producing breeds. The Shorthorn is a good beef breed.

Drainage Required.

A, B and C own adjoining farms. The water from A's farm flows across B's and C's. C has a ditch dug to carry the water away, but B has not done anything to help drain his, and the water floods back on A's farm so as to drown a large flat of land. A had the levels taken some time ago, and finds there is 4½ feet of fall across his and B's farm.

1. Can A force B to open a ditch across his farm?
2. If B refuses, how should A proceed?
3. If A cannot force B, can he force the Council, and how? **X. Y. Ontario.**

Ans.—1 and 3. A can compel B to do the needful.
2. He should take advantage of The Ditches and Water-courses Act, Ontario Statutes, 1912, Chap. 74.

Miscellaneous Queries.

1. In planting sugar-beet seed on level instead of in drills, is the turnip-seed sower used?

2. Where can I obtain Daubney oats for seed? I do not find them catalogued.

3. What is the relative value of rye and barley: 1st, pig feed; 2nd, cow feed; 3rd, hen feed?

4. I am thinking of sowing clover seed with oats, to be used for calves to run on in fall, after which it will be plowed under. Could I sow anything less expensive and answer the purpose as well?

5. What do you consider the best time to sow buckwheat?

6. I have some hens which seem to be suffering from diarrhea. Two have become lame, and the comb of one has turned nearly black.

7. Horse rising four has had a boil on each shoulder and one on neck. Two on shoulder have dried up and healed, and part of mane came off with skin from one on neck. **A NOVICE.**

Ans.—1. It may be, but many use the grain drill.

2. Parties having such seed for sale should use the advertising columns of "The Farmer's Advocate."

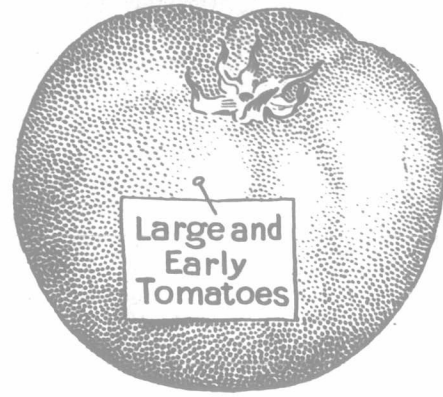
3. Experiments in feeding rye and barley, show them to be, approximately, of equal value in feeding swine and cattle. Barley would likely prove the better hen feed. In any case, these feeds should be fed in a mixture of grains.

4. A mixture of oats, Early Amber sugar-cane, and red clover, makes the best annual pasture.

5. About the first week in July, usually.

6. This appears to be tuberculosis. Kill one, and if the liver is covered with raised white or yellowish spots, you will be sure of it.

7. Local treatment for such boils consists in lancing, and then dressing three times daily until healed with a lotion made of one ounce each of sulphate of zinc and acetate of lead to a pint of water.



Large and Early Tomatoes



Small and Late

Progressive Jones Says:

"The Early Tomato Gets The Fat Price"

THEREFORE, we want the early tomato. I've just been reading a letter from F. G. Bridge of St. James Park, near London, Ont., who has had great success in growing early tomatoes. He says: "The

Harab FERTILIZERS

I purchased have done all claimed for them and more. Where I put Harab on Tomatoes, the fruit is larger and ripening early, and where I did not use the Fertilizer the fruit is very small and going to be late."

You can have just as great success with your tomatoes as Mr. Bridge, and scores of others, if you enrich your soil with Harab Fertilizers. Harab No. 12 contains just the amount of Nitrogen, Phosphoric Acid and Potash required to start the young tomato plant off right and push it to early maturity, increasing and improving the fruit as well.

My experience has shown that, while stable manures supply the humus to hold the moisture in the ground, they need the assistance of richer, well-balanced fertilizers to produce the biggest yield and to bring the tomatoes to early maturity. Mr. W. A. Thrasher of Sarnia states that he picked tomatoes ten days earlier from a plot treated with Harab Fertilizer than from an adjoining plot treated with stable manure.

I find from experience that soil fertilized with manure produces a large growth of vine, and while the vines may be loaded the fruit is undeveloped and ripens late, if at all. On the other hand where Harab No. 12 has been used, I find the vine development moderate, while the fruit is more plentiful, larger and ripens earlier.

Using the proper fertilizers means the early ripening of your tomatoes—and other vegetables—and the fat price for you. There are 14 different Harab Fertilizers, each one the best for its particular purpose. The Harris Abattoir have published a guide book, showing the correct fertilizers for all kinds of vegetables, fruits, field crops, berries, flowers and lawns. I strongly advise you to write for a copy.



Yours for the fat price;

Progressive Jones

The Harris Abattoir Co., Limited, Toronto

14

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

STOCKWOOD AYRSHIRES This herd is now headed by White Hill Free Trader (imp.) No. 33273, championship bull at Sherbrooke; also headed the 1st-prize aged herd. All ages for sale. Satisfaction guaranteed. **D. M. WATT, St. Louis Sta., Que.** Telephone in house.

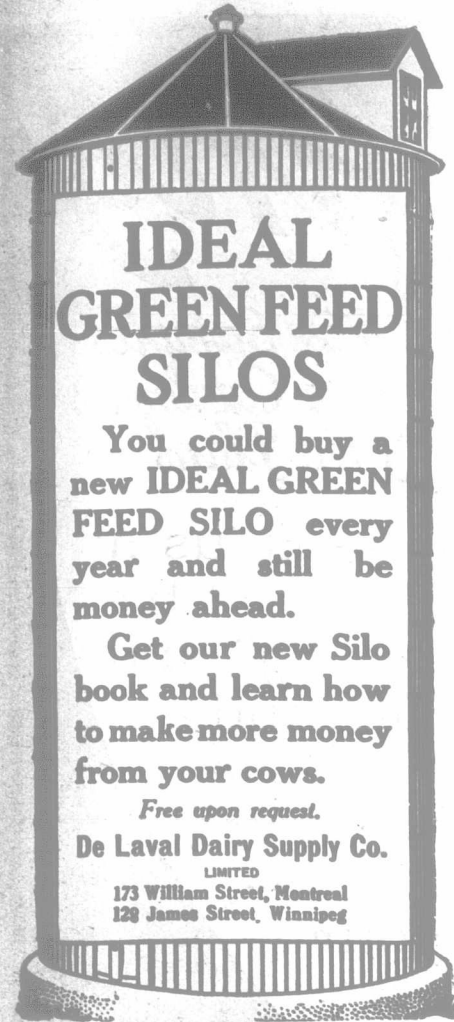
Ayrshires and Yorkshires—We now offer at bargain bull calves dropped in July, 1912. All bred from (imp.) sire and from either dams with good records, or their daughters either imported or home-bred. Some choice February pigs; also young pigs. **Alex Hume & Co., Menie, Ont.**

Stonehouse Ayrshires

Of choicest imported stock and with imp. sires and dams. I am offering young cows, 3, 4 and 5 years of age; a grand bunch of imp. yearling heifers, and a particularly good pair of young bulls. **L.-D. Phone.**

HECTOR GORDON, Howick, Que.

City View Ayrshires—Three young bulls fit for service; females from 3 months to 9 years; all young stock 3 years and under from R. O. P. ancestors. Always something for sale. Bell phone connections; 1¼ miles from 5 railroad stations. **JAMES BEGG & SON, R. R. 1, St. Thomas, Ont.**



IDEAL GREEN FEED SILOS

You could buy a new IDEAL GREEN FEED SILO every year and still be money ahead.

Get our new Silo book and learn how to make more money from your cows.

Free upon request.

De Laval Dairy Supply Co. LIMITED
173 William Street, Montreal
128 James Street, Winnipeg

Calves Without Milk

BLATCHFORD'S CALF MEAL
The Complete Milk Substitute

The result of over 100 years' experience with calf-rearers. The only Calf Meal made in an exclusive Calf Meal Factory. As rich as new milk at less than half the cost. Makes rapid growth. Stops scouring. Three calves can be raised on it at the cost of one. Get Bulletin, "How to Raise Calves Cheaply and Successfully Without Milk," by sending a post card to STEELE, BRIGGS SEED COMPANY, Toronto, Ont.



HERD BULL for sale. Count of Lakeview (9076); calved March 28, 1910. Bred by Lakeview Stock Farm, Bronte, Ont. A splendid stockgetter. Over 80 per cent of his get are females. Must sell him as I have a number of heifers from him of breeding age. He is quiet and sure. Also two young bulls now ready for service, sired by Count of Lakeview whose dams are granddaughters of Johanna Rhue 4th Lad. Straight and nicely marked. Will sell a few cows due to freshen this month. Bell Phone, Fenwick Stn. C. W. ROBBINS RIVER BEND, ONT.

Gawthorne Glen Holstein Herd
Offers young bulls ready for service, one from Calamity Houwtje, winner of 1st prize in cow class at Guelph, 1912; also a half-brother to Pontiac Jessie, sweepstakes heifer under 36 months; also a few females. Prices reasonable.

Write for particulars, or come and make your choice.
MARTIN McDOWELL
Eastwood Sta., G. T. R. Oxford Centre, Ont.

PURE - BRED 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 ASSOCIATION, F. L. Houghton, Sec., Box 127, Battleboro, Vt.

Holsteins and Tamworths
I am over-stocked and will sell a lot of young cows and heifers, winners and bred from winners; officially backed and right good ones. Also Tamworths of all ages.

R. O. Morrow & Son, Hilton P.O., Ont. Brighton Station. Phone.

For Sale Choice Reg. HOLSTEIN HEIFER CALVES, sired by Homestead Colantha Sir Abbekerk 2nd, whose dam and sire's dam average 26.81 butter 7 days and from tested dams; and two yearling heifers, sired by Corinne Calamity Ormsby. W. A. Bryant, Cairngorm, Ont.

Questions and Answers.
Miscellaneous.

Building Silo.
Next summer I intend building a concrete silo 14 x 40 feet, also an addition to cow stable, concrete foundation, six feet high.

1. What thickness of wall is required for each at bottom and top?
2. Is No. 9 wire good reinforcing, or would 1-inch iron be better?
3. How many tons of silage will such a silo hold?
4. Apart from durability, what advantage has concrete silo over wooden silo?
5. I run a dairy and beef farm, have been breeding Shorthorn cattle (grades) for nine years, and find them poor milkers. Am now crossing them with a Holstein sire. What results would you expect?
6. Have an eight-year-old mare which has been heavily drugged (or doped, as we call it). Has gone down in appearance and flesh. When standing, every muscle is in motion. Can there be anything done for her? If so, what?

P. T. B.
Ans.—1. For silo, 10 inches at the bottom and 6 inches at the top; for stable wall, 12 inches thick.
2. Iron, 1-inch, would be preferable.
3. About 120 tons if well packed.
4. Fireproof, rat-proof, and more permanent in appearance.
5. Unsatisfactory results. The cross is too violent. Better breed one or the other.
6. Let a veterinarian examine the mare.

Veterans' Scrip.
1. Where can I obtain Government war scrip?
2. How much land is it good for, and is it good for any Government free land?
3. How many scrips can any one single man take up land on?
4. What duties has he to do before he can get his patent?

A. G. H.
Ans.—It is presumed that your correspondent refers to South African Volunteer Land Scrip, or to South African Volunteer Bounty Land Certificates, and, in reply to his first question, I beg to inform you that the Department does not sell scrip of any kind, and is not in a position to furnish information either as to the present current price, or as to where it may be obtained, as it must be acquired either from the grantees thereof, or from brokers or others who deal in such matters.

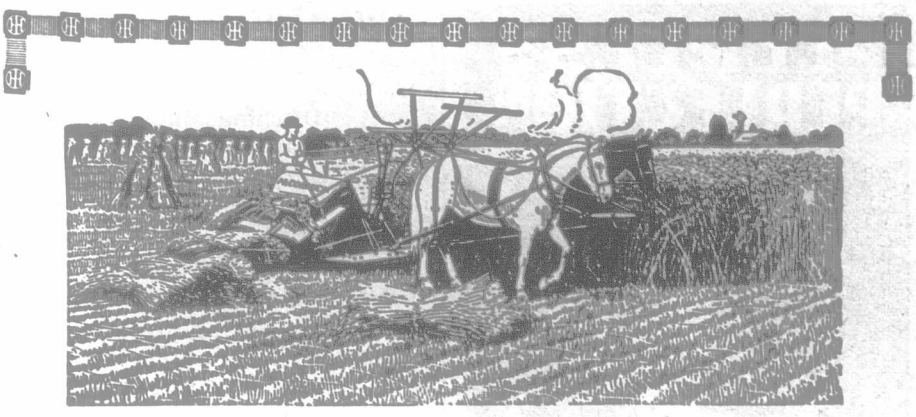
South African Volunteer Bounty Land Certificates may be located upon two adjoining quarter sections (320 acres) of Dominion lands available for homestead entry in the Provinces of Manitoba, Alberta, or Saskatchewan, by the grantees thereof, or by their duly qualified substitutes, after the instruments appointing substitutes have been accepted and registered by this Department.

The time in which these certificates could be located expired on the 31st December, 1912, but it is proposed to ask Parliament to extend for six months, and possibly twelve months, the time for the location of South African Volunteer Bounty Land Certificates, on the same terms and conditions as were embodied in the Volunteer Bounty Act, 1912, and that, in the meantime, certificates are accepted for entry as formerly.

There is nothing in the Volunteer Bounty Act to prevent a person, otherwise eligible, being appointed the substitute of two South African Volunteers, provided such person is in a position to comply, in respect to each grant, with all the conditions as to residence and cultivation under which such entries are granted.

The ordinary homestead provisions of the Dominion Lands Act apply to entries granted under the Volunteer Bounty Act. Residence on and cultivation of the land entered for, for six months in each year, during a period of three years, and the erection of the necessary buildings, is required. Residence must, in each case, be in a house actually upon the land entered for. Cultivation is required during each of three years. A total of thirty acres must be brought under cultivation before application for patent, a reasonable amount of which must be done each year, and the land must be under crop during two years.

A Memorandum for the "Information of Intending Settlers" is published. N. O. COTE, Controller.



The McCormick Binder

ALL binders are more or less alike. However, there are several features that have an influence on the efficiency and satisfactory service of a machine. The farmer of today wants more than a machine that will cut and bind his grain. He demands a binder that is simple in construction, easy to operate—one that will harvest his grain under all conditions.

Handles Grain Under All Conditions

whether it be short or tall, even, lodged, tangled, or full of green undergrowth. The McCormick binder guards are level with the bottom of the platform so that when the machine is tilted to cut close to the ground, there is no ledge between the front of the platform and the back of the guards to catch trash, stones, etc., and push them ahead of the cutter bar to clog the machine.

The McCormick binder sold in Eastern Canada is the result of the demand of Eastern Canadian farmers for a machine to meet local conditions. It is the binder you want. See the I H C local agent, or write the nearest branch house for full information.

International Harvester Company of Canada, Ltd
EASTERN BRANCH HOUSES

At Hamilton, Ont.	London, Ont.	Ottawa, Ont.
Montreal, P. Q.	Quebec, P. Q.	St. John, N. B.

These machines are built at Hamilton, Ont.

AVONDALE STOCK FARM
Herd bulls: Prince Hengerveld Pietje 8230 (50582). Sire, Pietje 22nd Woodcrest Lad, out of Pietje 22nd, 31.00 lbs. butter 7 days; greatest imported cow, and one of the greatest young sires of the herd, having already sired a 35-lb. 4-year-old daughter. Dam, Princess Hengerveld De Kol, 33.63 lbs. butter 7 days, highest record daughter of Hengerveld De Kol, with 116 tested daughters. King Pontiac Artis Canada 10042 (72294). Sire, King of the Pontiacs, greatest living sire of the herd, and sired by the greatest sire of the breed Pontiac Korndyke. Dam, Pontiac Artis, daughter of Hengerveld De Kol. Record, 31.8 lbs. butter 7 days, 123 lbs. 30 days, 1,076 lbs. 365 days. Young bulls from these two great sires for sale, from cows with records up to 29 lbs. Write-us, or better come and see them. Visitors always welcome. Address all correspondence to: A. C. HARDY, Owner. H. LORNE LOGAN, Mgr., Brockville, Ont.

SERVICE BULLS AND BULL CALVES FROM A. R. C. DAMS.
Sons of Johanna Concordia Champion, No. 60575, one of the richest bred and best individual bulls of the breed. His granddams, Colantha 4th's Johanna 35.22 per cent. butter, fat 4.32 per cent., and Johanna Colantha 2nd 32.90 per cent. butter, fat 5.02 per cent. Average butter in 7 days 34.06 per cent. Average fat 4.67 per cent. If you want to increase the butter-fat in your herd, let me sell you one of these bulls. I can spare a few good cows and heifers bred to the "Champion." Write me your wants and I will try and please you. MAPLE AVENUE STOCK FARM, L. E. CONNELL, Prop., FAYETTE, FULTON CO., OHIO, U. S. A.

FAIRVIEW FARM'S HERD OFFERS sons of Pontiac Korndyke 25983, the greatest sire that ever lived, and the only bull that ever sired 19 daughters that have made 7-day records above 30 pounds each. Do you want your next bull to be a brother to such cows as Pontiac Lady Korndyke (38.02), Pontiac Pet (37.67), Pontiac Clothilde De Kol 2nd (37.21), Sadie Vale Korndyke (36.20), and eight others above 30 pounds? If you do, write me for price on a son of Pontiac Korndyke. I also have sons of Rag Apple Korndyke and Sir Johanna Colantha Gladi. E. H. DOLLAR, HEUVELTON, NEW YORK. Near Prescott.

LAKEVIEW HOLSTEINS
We are now testing some of the daughters of Count Hengerveld Payne De Kol, and they are running from 16½ lbs. with first calf to 20 lbs. with second calf. There are still a few young bulls from these heifers that we are offering at half their value, in order to make room. They are sired by Dutchland Colantha Sir Mona. Come to the farm and see the dams of these bulls and their dams.
E. F. OSLER, BRONTE ONTARIO

Summer Hill Holsteins
Would you like your next bull to be from the same sire as the heifer that holds the world's record for yearly work, and the same sire as the Champion Cow of Canada in the seven day work, and the same sire as the Champion four-year-old of Canada in the thirty day work? We have bulls of this breeding to offer whose dams have records of over 27 lbs. We have also some extra choice heifers bred to our junior herd bull whose dam has a record of 34.60 lbs. butter in seven days and 111 lbs. milk a day. Yorkshires of all ages. D. C. FLATT & SON, R. R. No. 2, Hamilton, Ont.

HOLSTEINS
I can supply a limited number of high-producing and highly-bred females; also young bulls, bred on both sides from high official backing. Let me know your wants.
W. E. THOMPSON, R. R. No. 7, Woodstock, Ont.

Maple Holstein-Friesians Special offering: Bulls from 1 to 15 months old. The growthy kind that will give good service. One from a son of Evergreen March, and all from Record of Merit dams. Write for particulars. G. W. GLEMONS, St. George, Ont. Bell telephone.
When writing please mention The Advocate

The Maples Holsteins
I am now offering for sale 10 young bulls, official record backing on both sire's and dam's side. They are old enough for service, and my prices should soon sell them.
WALBURN RIVERS, Foldens, Ont. Oxford County Phone.

PEERLESS PERFECTION



The Fence That's Looked Together

It's close enough to keep small fowl in and strong enough to keep large animals out. Securely locked together at each intersection of the wires. It's many times heavier and stronger than poultry netting, and being well galvanized, will last many years longer. Top and bottom wires are extra heavy. No top and bottom boards required. **PEERLESS Poultry Fence** is built so strong and heavy, that but half the ordinary number of posts are required. It gives you real fence service.

Here's How Strong It Is

Read this Letter:

Dear Sir: I am writing a testimonial as to the strength of **PEERLESS Junior Chicken Fencing**. Mine is four feet high. It turned two horses each weighing 1600 pounds. They ran full tilt into the fence about 1/2 rods from each other at the same time. The result was that they both turned a somersault over the fence, alighting on their heads and necks, scratching them up some, but the fence remained intact.

Yours truly,
Surrey Center, B. C. Joe Boothroyd

Think of it—a poultry fence strong enough to withstand the combined weight of two big horses. And that without a top or bottom board either. If you are interested in such fencing, write us. Ask for our literature. We also manufacture farm fence and ornamental gates.

Agents nearly everywhere. Live agents wanted in unassigned territory.

The Benwell-Hexie Wire Fence Co., Ltd.
Winnipeg, Man. Hamilton, Ont.

ALLOWAY LODGE STOCK FARM SOUTH DOWNS ANGUS COLLIES

The best in their respective breeds. Write for information to:

ROBT. McEWEN, Byron, Ont.
R.R. Sta. and Tel. Office, London.

Newcastle Tamworths and Shorthorns

Present offering. Seven boars from 6 to 10 months old; boars and sow pigs 6 weeks to 4 months; sows bred and others ready to breed, from such noted stock as Colwill's Choice, Canada's champion boar, 1901, '02 '06 and '05, and Imp. Cholderton Golden Secret. Also a few choice Shorthorn heifers in calf; beef and milk combined. Show stock a specialty. Prices right. L. D. Phone A. A. COLWILL, Newcastle, Ontario.

HOLSTEINS and YORKSHIRES Minster Farm offers a grandson of Snowflake. She gave 2,054 1/2 lbs. milk in 30 days, and of Count Hengerveld Fayne De Kol; his dam and sire's dam average 24,075. A sister made 35.55 lbs. butter in 7 days. For extended pedigree and price, write: R. Honey & Sons, Brickley, Ont.

REG. POLAND CHINAS

I am offering for sale, boar, 10 months, and sow, same age; bred from imported stock. For quick sale, write Box N, Farmer's Advocate, London.

Beggar—"Will you please, sir, give me ten cents for a night's lodging?"
Philanthropist—"I'll give you five cents if you raise the other five."



AFTER WORK USE SNAP

It will clean your hands thoroughly and quickly no matter how soiled they are and leave them smooth and soft. Ink, paint, oil or grease stains, off they come with Snap. Get a Can To-day. 15c. at Your Dealers. Save the Coupons.



Snap Company Limited, Montreal

Questions and Answers. Miscellaneous.

Ditching Machines.

Are there any ditching machines manufactured in Canada? If so, please give the names of some firms who manufacture them.

J. M.

Ans.—No manufacturers of traction ditchers in Canada.

Smoking Meat.

A liquid smoke used as a substitute for smoking hams. Please explain what is used, and how.

M. K.

Ans.—First boil for half an hour six quarts of water, one-half pound brown sugar, one ounce saltpetre, and two pounds salt. Skim well and set aside until cold, then pour over the fresh meat. Let stand two weeks in a cool place, then drain and wash well. Without wiping, roll in bran until thickly coated, then smoke. A large ham should be smoked for ten days to two weeks in a barrel or hogshead.

Premium Notes—Overhanging Trees.

1. Can an insurance company, doing business on the premium-note system, such as the Mutual Fire Insurance Co., having failed, collect more than the face value of the premium note?

2. Are the policy-holders insured in the company considered part of the company?

3. Are the policy-holders liable in case of failure of company, to any liabilities of the said company?

4. I notified my neighbor to remove all his branches that hung over the line fence that shaded my property, and he only removed a few parts of the lower ones. What steps would I have to take to have him remove the rest of them?

Ans.—1. We cannot tell without further information respecting the contract. 2. Inasmuch as it is a mutual company—yes.

3. It is quite possible that they are.

4. You have a right of action against him for a mandatory injunction, or you can yourself cut the branches so far as they overhang.

Gypsum.

1. When would be the best time to apply land-plaster to potato and corn land?

2. Would it do to mix it with the corn and sow it with the seeder?

3. Would it injure potatoes to put a handful in each hill?

4. Would it be beneficial to sow it on land intended for turnips and mangels, and if so, how many pounds to the acre?

5. Would it be any benefit to sow on land sown to oats and seeded down, and the number of pounds to the acre?

6. How many pounds to the acre would it require on alfalfa and red clover, and when best to apply it?

7. Would it be of any use around young apple trees?

As it has never been used in this section for a number of years, would you, for the benefit of we young farmers, describe its benefits in general, and what it is composed of?

A. M.

Ans.—1. Early in the spring. For best results, it should be applied some time before crop is sown.

2. Could you distribute it evenly thus? We hardly think so. Better sow it separately, by hand, on top of the soil.

3. We never advise this method of fertilizing. Better results, all things considered, come from broadcasting.

4 and 5. Gypsum, because it carries some sulphur, is considered beneficial for roots and clover. It is not so much a direct fertilizer, but liberates phosphates and potash in the soil, rendering them available to the plants. Thus, if used year after year, it will deplete the supplies of these materials, unless they are added as artificial fertilizer, which might better be done in place of using the gypsum.

6. If you decide to use it, try from 160 to 200 pounds per acre.

7. Not much. Better use a direct fertilizer.

We would advise the use of a complete fertilizer in preference to gypsum.

Roofing

Free Samples
Free Catalogues
Free Plans

If you are interested, send us a postcard with the word "Roofing" and your name and address -- then we will send you valuable information about your

ROOFING NEEDS

The Galt Art Metal Co. Limited
252 Stone Road, Galt, Ontario.

BIBBYS CALF MEAL

CREAM EQUIVALENT FOR RAISING CALVES AND YOUNG PIGS
CONTAINS A MUCH HIGHER PERCENTAGE OF REAL VALUE THAN OTHERS
SOLD BY LEADING MERCHANTS, OR DIRECT FROM WM RENNIE CO LIMITED
TORONTO - MONTREAL - WINNIPEG - VANCOUVER



Shropshire and Cotswold Ewes

at greatly reduced prices. They are all registered and I s lamb to good rams. Are going to be sold; whoever gets order in first will get the choice.

John Miller, Jr., Blairgowrie Farm, Ashburn

AMERICAN SHROPSHIRE REGISTRY ASSOCIATION
Only Shropshire Association recognized by U. S. Government. Largest membership of any live-stock association in the world. Life membership \$5.00 No yearly dues. Write for information. J. M. WADE, SECRETARY, LAKEVILLE, INDIANA



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 stock from the best G.T.R. Long-distance phone. H. J. DAVIS, Woodstock, Ont. C.P.R. and

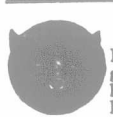
Duroc Jersey Swine AND JERSEY CATTLE
Grand stock, either sex, constantly for sale. Price reasonable. MAC CAMPBELL & SONS, Northwood, Ontario.

MORRISTON TAMWORTHS AND SHORTHORNS
Bred from the Prize-winning herds of England; have a choice lot of young pigs, both sexes, pairs not a kin; and also the dual-purpose Shorthorns. Satisfaction guaranteed. C. Currie, Morriston.

Tamworths—Have some choice young boars and sows, from three to five months old; also one yearling bear at a bargain. Bell phone.

HERBERT GERMAN, St. George, Ont.

Cloverdale Berkshires—Present offering: Sows bred and others ready to breed; also younger stock of both sexes. Prices reasonable.
C. J. LANG, Hampton, Ont. Durham Co.



ELMHURST LARGE ENGLISH BERKSHIRES

Present offering: Select sows. Choice boars ready for service; also younger stock, the get of Duke of Somerset, Imp., and out of imported dams. Satisfaction and safe delivery guaranteed. H. M. VANDERLIP, Breeder and Importer, CAINSVILLE P.O. Langford station, Brantford and Hamilton Radial.

A One Idea Business

THE business of making Oliver plows is built on one idea: "Satisfy the customer." Nearly fifty-eight years ago when James Oliver was both making plows and selling them to farmers he applied to his business the principle of customer satisfaction, which has since become a fundamental business rule. He built plows, tested them, then sold them, and last of all interviewed his customers to get their suggestions for further improvements. Not many years of such work as this were required to establish Oliver plows in a high place in the estimation of the men who used them. For over fifty-seven years the same idea has dominated the business of building



Oliver Plows

When the plant at Hamilton was erected the problems of Eastern Canadian plowing came up for consideration. As a result of the careful study of those problems and the experimenting that followed it, Oliver plows for Eastern Canada stand in a class by themselves as satisfaction givers.

The line includes walking plows, three-wheel sulky, walking gangs, hillside plows, high and low lift gangs, and riding cultivators. There are one or two plows in the line which are specially adapted for most Eastern Canadian conditions. Among these are the Oliver 1-C sulky and 1-C gang. In both these plows most of the weight of the plow is carried on the two furrow wheels which, of course, ride on a smooth surface all the time.

There is a spring on the land wheel which, in connection with the two bails on which the plow is hung, insures an even depth of plowing.

Oliver plows are handled exclusively in Canada by the International Harvester Company of Canada, Ltd. You can see any plow in the Oliver line at the place of business of the I H C local agent. If you will tell him what kind of plowing you want to do, he can show you the plow that will do your work best. See him for catalogues and full information, or write the nearest branch house.

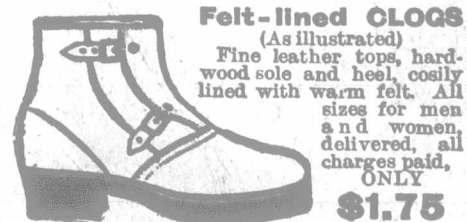
International Harvester Company of Canada, Ltd

EASTERN BRANCH HOUSES
At Hamilton, Ont. London, Ont. Montreal, P. Q.
Ottawa, Ont. St. John, N. B. Quebec, P. Q.
Oliver Plows are built at Hamilton, Ont.



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With Health Brand Clogs on, the man or woman who works in the wettest, coldest places always has warm, dry and comfortable feet. Try a pair yourself this winter.



Felt-lined CLOGS
(As illustrated)
Fine leather tops, hardwood sole and heel, cosily lined with warm felt. All sizes for men and women delivered, all charges paid, ONLY **\$1.75**

Higher 3 buckles \$2.25
High-legged Wellingtons \$2.75 and 3.25
Children's lace, 7's to 2's 1.25

Or if you wish to learn more about these wonderful Clogs before ordering, write to us for catalogue booklet, telling how Health Brand Clogs are made, etc., etc. Dealers, write for proposition.

CANADIAN FELT-LINED CLOG CO.,
Dept. 5, 363 Spadina Ave., Toronto, Canada

GOVERNMENT STANDARD

SEEDS

Sold under the guarantee that if they do not entirely satisfy you on arrival, you may ship them back at our expense. We buy most of our seeds direct from the farmers here who grow them.

ALFALFA.—There is practically no home-grown seed this year, as the wet weather caused a new growth of plant instead of seed. We have some splendid seed though, suited to our land, which we recommend. Price, \$12.00 per bushel.

RED CLOVER.—A splendid, clean, bright sample. Price \$15 per bushel.

ALSIKE.—Clean and bright. Price, \$15 per bushel.

TIMOTHY.—Bright and clean. Price, \$3.00 per bushel.

O. A. C. No. 21 BARLEY.—60c. per bush.

SILVER MINE OATS.—60c. per bush.

SIBERIAN OATS.—60c. per bush.

BANNER OATS.—60c. per bush.

We pay freight to any point in Ontario on 3 bush. clover seed. Bags for seed grain 10c. each. Cash to accompany order. Ask for samples.

The Caledonia Milling Co., Ltd.
CALEDONIA, ONT.

TO FARMERS' CLUBS

Cunard Line, Canadian Service

Have opened up an

IMMIGRATION DEPARTMENT

TO arrange for Labor for you from the Old Country. We have an organization of over 2,000 Agencies, many in the Heart of the Agricultural Districts of England, Scotland and Wales.

Tell Us, If You Want Help

Drop the office a line, and if necessary we will gladly come and see you and arrange details.

The Cunard Steamship Co., Limited
J. B. HOSEASON, IMMIGRATION AGENT
114 King Street West, Toronto, Ont.

The Call of the North

Do you know of the many advantages that New Ontario, with its millions of fertile acres, offers to the prospective settler? Do you know that these rich agricultural lands, obtainable free, and at a nominal cost, are already producing grain and vegetables second to none in the world?

For literature descriptive of this great territory, and for information as to terms, homestead regulations, settlers' rates, etc., write to

H. A. MACDONELL

Director of Colonization

Parliament Bldgs. TORONTO, ONT.

Government Standard Seeds

Alsike, Red Clover, and Timothy; write for samples; prices moderate.

SHIPMAN & DAWSON, Cannington.

PATENTS procured everywhere
EGERTON R. CASE
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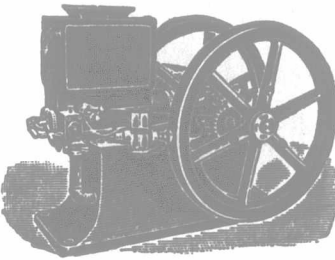
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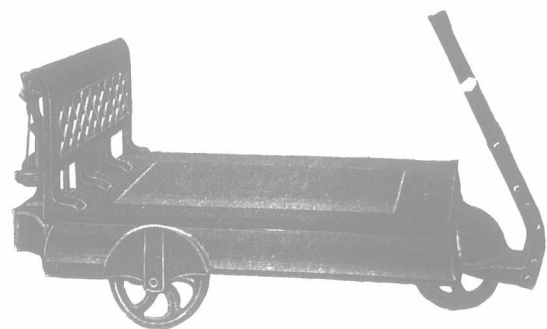
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