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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

PERSEVERE AND SUCCEED
FOUNDED 1880

F. K. Doherty
Chief Officer Publications
Branch: Dept. of Agr.

Vol. XLVII.

LONDON, ONTARIO, AUGUST 29, 1912.

No. 1040

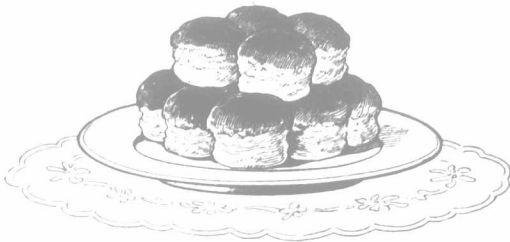
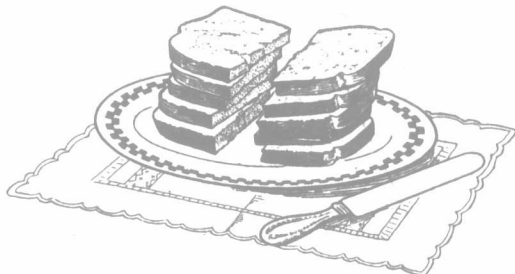
Try PURITY— the every-purpose flour

For Bread, Rolls, Buns, Biscuits, Layer Cakes,
Short Cakes, Griddle Cakes, Fruit Cakes,
Pies, Puddings, Cream Puffs,
Tarts, Ginger Snaps

IN the making of everything for which flour is required, PURITY FLOUR gives admirable results. Among thousands of cooks it is spoken of as "The every-purpose flour."

No matter what you may desire to make, use PURITY FLOUR. The results will give you a higher degree of satisfaction than you've ever experienced when ordinary flour was used.

There is added deliciousness to the flavor, extra quality in every ounce of the bread, or the cake, or the biscuits, or



whatever you may make with PURITY FLOUR.

PURITY FLOUR gets its finer flavor, greater strength, extra nutritiousness and higher quality from the high-grade portions of the hard wheat berries. All the low-grade portions are excluded during its process of milling. PURITY FLOUR is worth more than ordinary flour. It costs more to make it.

The present huge demand is your proof of how firmly PURITY FLOUR has established itself among the thousands who place quality before price.



"More bread
and better bread"

PURITY FLOUR

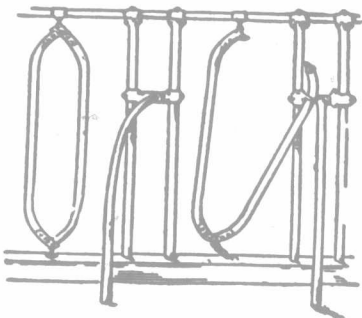
"More bread
and better bread"

and better Pastry, too.



Making Farming Easier

EVERY farmer agrees that it is a fine thing to apply scientific methods to farming, and to run a farm on a business basis. The Louden way is the truly scientific and businesslike way to save labor and to ease the day's work.



LOUDEN'S COW STALLS AND STANCHIONS keep your cows cleaner and healthier. Therefore the cows give more milk, and this means bigger profits. Stanchion construction is simple and perfect. Easily opened and closed, but absolutely secure when locked. They allow freedom of movement, and provide a maximum of comfort.

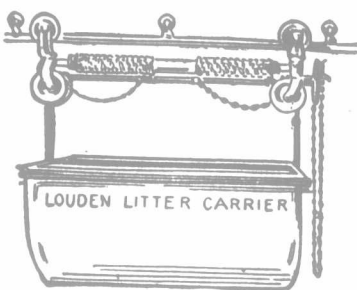
THIS BOOK SENT FREE



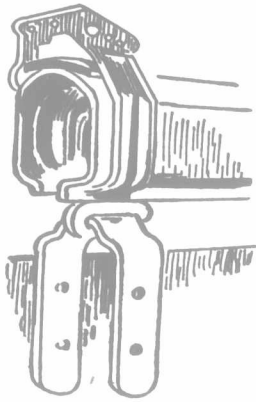
LOUDEN'S FEED AND LITTER CARRIER.

The only practical way to handle feed and litter, etc., is by overhead carrier—and the Louden equipment is recognised as being the last word in perfection.

Louden's carriers are of galvanized sheet steel on elevated steel tracks—run anywhere—round corners, in and out of doors—from one building to another.



We have different styles of carriers and we will advise you as to the tracking suitable for your requirements. Write for information.



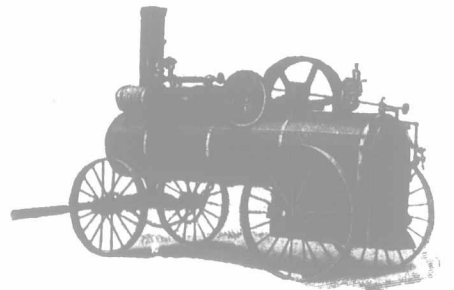
LOUDEN'S BARN DOOR HANGERS.

We manufacture five styles of hangers to suit different purposes. We recommend Louden's Bird Proof Door Hanger—as illustrated. It is the strongest and most durable, and consequently the cheapest hanger in the long run.

The construction protects these hangers from ice in winter and nesting birds in summer. Can't rust, can't balk. Thoroughly reliable.

Our Book, "Perfect Barn Equipments," will be useful to you, as it illustrates and tells about many modern inexpensive articles that turn chores into play and cut down expense of farm labor—write for it to-day, it's free.

LOUDEN MACHINERY CO., Dept. 21, GUELPH, Ont.



Rebuilt Portable Engines

We have a splendid stock of good, rebuilt, portable engines, of different types, and by different makers, from 10 to 18 horse-power, all splendid value at the prices we ask for them.

Suitable for farmers' own use, silo-filling, threshing, and other work. Ensure having your silos filled at the proper time by having one of these engines on hand to do the work.

We also have several rebuilt traction engines and threshing machines to offer. Descriptions and prices of our stock will be given promptly on request.

The Robt. Bell Engine & Thresher Co. LIMITED
Seaford, Ontario.



SYNOPSIS OF CANADIAN NORTHWEST LAND REGULATIONS.

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

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

In certain districts a quarter-section alongside his homestead. Price, \$3.00 per acre.

Duties—Must reside upon the homestead or pre-emption six months in each of six years from date of homestead entry (including the time required to earn homestead patent) and cultivate fifty acres extra.

A homesteader who has exhausted his homestead right and cannot obtain a pre-emption may enter for a purchased homestead in certain districts. Price, \$3.00 per acre. —Must reside six months in each of three years, cultivate fifty acres and erect a house worth \$300.00.

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

"GOOD as GOLD"

are the Policies of the

London Life INSURANCE CO'Y

Head Office: London, Canada

BEAUSE:

The assets of the Company are most carefully invested. 85% of the total assets consist of loans on first mortgages upon which form of investment the Company has incurred no losses in a quarter of a century. Bonds, Stocks and Debentures are carried at a figure much below market value.

Ask for pamphlet "Reasons Why"

APPLE TREES

We are specialists in the production of hardy varieties for the north and cold climates. Our apple trees are budded on whole roots and grown on our nurseries (170 acres) at Pointe Claire, Que., under the rigorous climatic conditions of this section, and they are, therefore, superior as a stock for northern planters, both in the garden and the orchard.

Hardy Trees are what you want—they are what you must have if you want to make a success of your planting. At present we have a full line of all the best standard varieties on hand, and intending purchasers are urged to place their orders now while we have a full selection on hand.

CANADIAN NURSERY CO., LTD.,
10 Phillips Place, MONTREAL, QUE.

A few vacancies for good honest salesmen.

INVENTIONS

Thoroughly protected in all countries. EGERTON R. CASE, Registered Patent Attorney, DEPT. H, TEMPLE BUILDING, TORONTO. Booklet on Patents and Drawing Sheet on request.

Canadian Northern Railway



50,000 HARVESTERS WANTED EXCURSIONS to Winnipeg \$10.00

Choice of destination left to the excursionist. Half-a-cent a mile from Winnipeg to Regina, Saskatoon, Warman, Swan River, Edmonton, and to all other points on the Canadian Northern Railway.

Returning, half-a-cent a mile from all points on C.N.R. to Winnipeg. \$18.00 from Winnipeg to original starting point.

DATES OF SALE

- AUG. 20.—From Toronto and Rosedale, C.N.O. and lines in Ontario, Toronto to Sarnia on G.T.R. and south thereof.
- AUG. 23.—From Toronto and all C.N.O. stations east and south of Sparrow Lake; all stations on Central Ontario Railway, and stations on Bay of Quinte, except Kingston, also points on other lines north of G.T.R., Toronto Sarnia line, and east of but not including Sharbot Lake and Renfrew.
- AUG. 28.—From Toronto, all C.N.O. stations east and south of Sparrow Lake; all Central Ontario Railway and Bay of Quinte stations, and points east of, but not including North Bay.
- AUG. 30.—From Toronto to Sparrow Lake on C.N.O.; also points on other lines, Toronto to North Bay, Sudbury and west thereof.

The richest country in the West is served by the Canadian Northern Railway. The demand for harvesters along its lines is very heavy and THE WAGES THE HIGHEST.

Write for Home-seekers' Guide, showing 35,000 free homesteads awaiting the settler.

For full information apply to

R. L. FAIRBURN, Gen'l Pass. Agt., Can. Nor. Ry., Toronto, Ont.

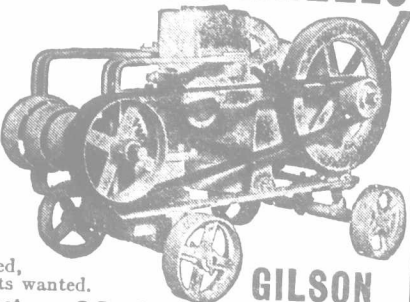
A FARMER'S POWER HOUSE ON WHEELS

Complete with Line Shaft, Truck, Pump Jack and interchangeable Pulleys capable of 60 changes of speed.

An engine that carries its own line shaft, pulleys, belt tightener and hangers. The Gilson 60 Speed Engine is a complete power plant in itself. You can haul engine anywhere, attach it and get just the speed desired—the only engine of its kind made. Gives 100 per cent service. Runs the whole farm. Goes like sixty—sells like sixty—has sixty speeds. 1 1/2 H.P., also 3 H.P. and 6 H.P. Engines up to 27 H.P.

WRITE TODAY. Write at once for illustrated, descriptive literature with full information. Agents wanted.

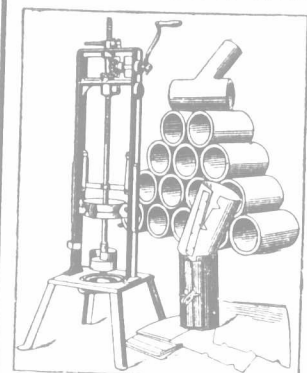
GILSON MFG. CO., Ltd. 61 York Street Guelph, Ontario



GILSON "60 SPEED" ENGINE

When Writing Advertisers, Please Mention "The Farmer's Advocate"

MAKE YOUR OWN TILE



Cost \$4.00 to \$6.00 per 1,000

Hand or Power

Send for Catalog

Farmers' Cement Tile Machine Co. Walkerville, Ont.

AGENTS



Amazing Invention

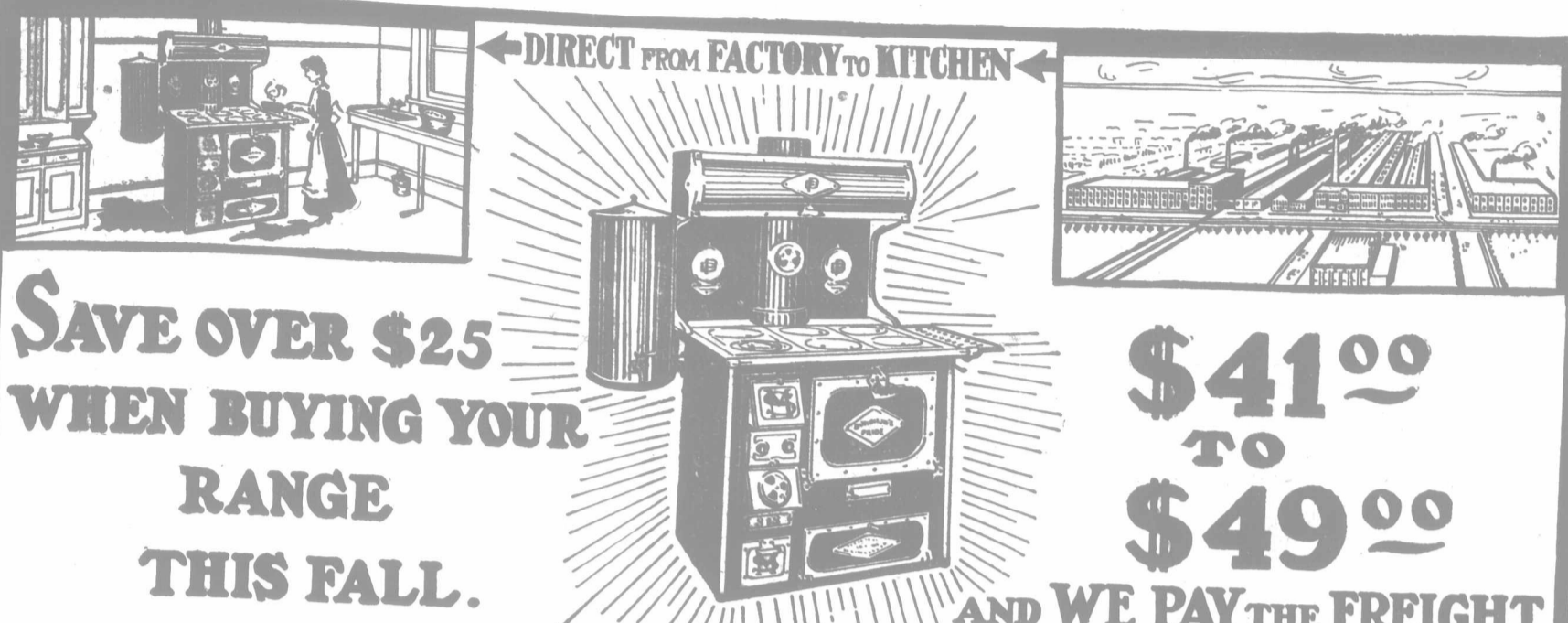
Entirely new kind lamp burner; generates gas; makes extremely large powerful white light. Smokeless, odorless. Sells everywhere. Nothing like it. Exclusive territory contracts granted. Positively not sold in stores. Agents making big money. Sample outfit 35c, post-paid. Partials FREE.

Experience unnecessary. **Great White Light Co., Dept 302, Windsor, Ont.**

Dawson's Golden Chaff Wheat

Highest yielder at experimental farm last sixteen years. Average yield 54 bushels. Withstood last winter well. Free of weeds. \$1.50 per bush over ten bushels discount; over twenty bush., 10% discount. **W. C. PEARCE, IONA, ONT.**

← DIRECT FROM FACTORY TO KITCHEN →



SAVE OVER \$25
WHEN BUYING YOUR
RANGE
THIS FALL.

\$41⁰⁰
TO
\$49⁰⁰

AND WE PAY THE FREIGHT

You can buy DOMINION PRIDE RANGE at Factory Price
Direct from the Largest Malleable Range Works in Canada


THE price which the Dealer quotes you on a Range is made up like this—Manufacturing Cost + Manufacturer's Profit + Jobber's Expense of Handling and Selling + Jobber's Profit + Retailer's Expense of Handling and Selling + Retailer's Profit + Freight.

By our direct "Factory to Kitchen" selling plan all these charges are cut out except the actual manufacturing

cost, a small profit, and freight. The difference to you is the difference between the \$41 to \$49 which you pay, for a "DOMINION PRIDE" Range and the \$69 to \$78 which you would have to pay the Dealer for a Range which cost as much to make.

Are you anxious to contribute \$25 or \$30 to the middlemen?
In the—

Here is a Book Worth Having
It tells about cooking from the time the Cave Dwellers used to put hot stones in the pot to boil it. The Book contains interesting information gathered from many sources and is illustrated profusely.
The "Evolution of the Cook Stove" also tells all about the "Dominion Pride" Ranges. Whether you need a Range just now or not you will enjoy this book.
Write for free copy.



"DOMINION PRIDE RANGE"

you get a full dollar's worth of actual stove value for every dollar you pay.

The "DOMINION PRIDE" is made of tough, strong malleable iron and the best blue polished steel—materials that will neither warp, crack nor break, so that it will last a lifetime. It is made in the largest Malleable Iron Range Works in Canada, and each range is backed by our unconditional guarantee.

The "DOMINION PRIDE" looks well, cooks well, saves fuel and is easily cleaned. You'll be proud of its neat, handsome appearance in your kitchen, and of the appetizing food it will cook to perfection for you. You'll appreciate the ease of keeping its blue polished steel surface and the

bright polished top spick and span with a few rubs of a cloth. Your husband will be more than pleased with the reduction in the coal or wood bill—for the "DOMINION PRIDE" saves, by actual tests, 30% of the fuel.

A "DOMINION PRIDE" Range, with High Closet Shelf and Elevated Tank or Flush Reservoir, with Zinc Sheet to go under range, 8 sections Blue Polished Steel Pipe and 2 Elbows, will be delivered to any Station in Ontario, Quebec or the Maritime Provinces for \$41, or to any Station in the Four Western Provinces for \$49—\$5 to be sent with order and balance to be paid when Range is delivered at your Station. If not convenient to pay cash we will arrange to accept your note.

Canada Malleable & Steel Range Mfg. Co. Limited, Oshawa, Ontario.

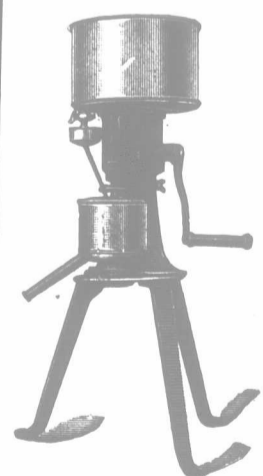
When writing it will be a distinct favor to us if you will mention this paper.

6

The Machine that is different from all others.

**THE "MELOTTE"
Cream Separator**

It has a larger sale than any other Cream Separator in the British Empire.



is yearly replacing thousands of other makes of Cream Separators.
The "MELOTTE" is always purchased by those who know its value.

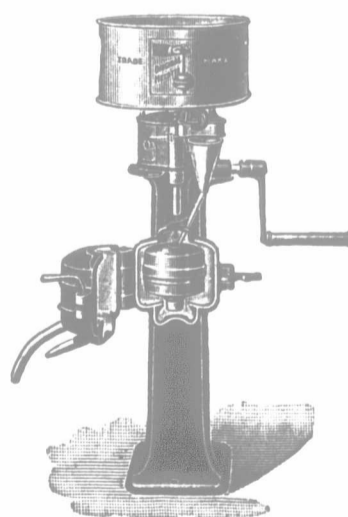
THE REASON WHY It lasts. It skims clean. It pleases the user. It gives genuine satisfaction.

Therefore the "MELOTTE" is the cheapest Cream Separator to buy.

PROOF Names of users in your neighborhood sent you for the asking.

Visit our display under Grand Stand while attending the Canadian National Exhibition. Full particulars, catalogues, etc., free. Write us.

EVERY MACHINE GUARANTEED



R. A. LISTER & COMPANY, LIMITED,

197 Princess Street
Winnipeg, Man.

58-60 Stewart Street, TORONTO, ONT.
STUART A. LISTER, Manager

82 Water Street
St. John, N. B.

**Visitors to the
Toronto Exhibition**

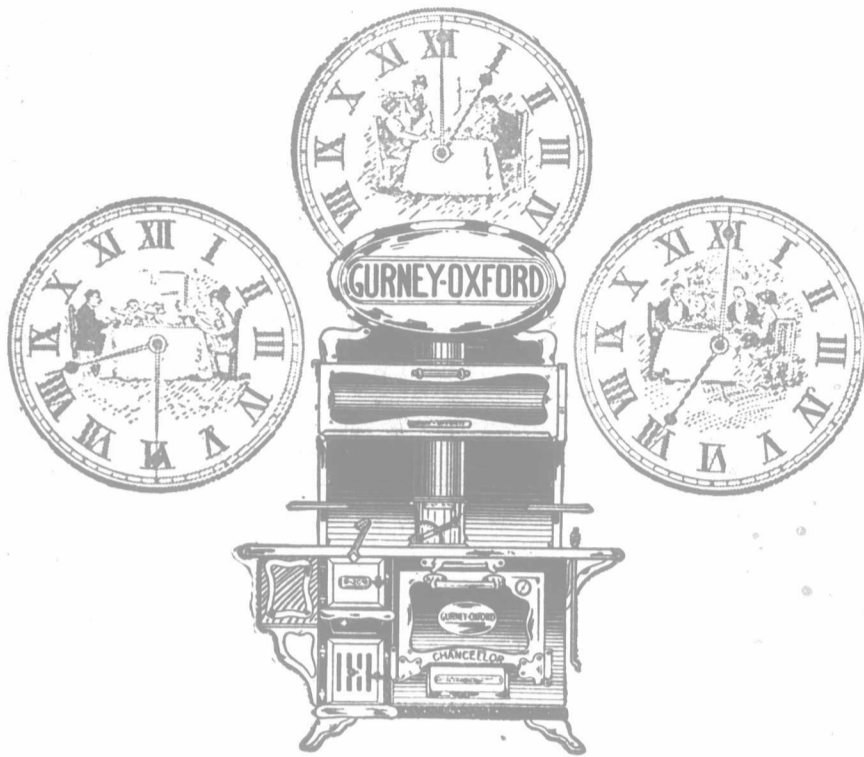
Should make at once for the east wing of the Horticultural Building. We cordially invite you to pay an extended visit to our display of Canadian products of

**CARTER'S
TESTED SEEDS**

In any case, we desire your address for catalogues, and even if you intend favoring us with a call, we ask you to send us a post card now for illustrated literature regarding the products of the House of Carter.

Patterson, Wylde & Co.
65 Front St. East, Toronto
And at Boston, Mass.

SOLE AGENTS FOR
JAMES CARTER & CO.
London, England
Seed Growers by Appointment
to H. M. King George V.



The Gurney-Oxford is prompt

No matter what comes or goes—meals we must have.

The preparation of meals comes round three times a day.

Every housewife wants to know that she can depend on her stove absolutely; she wants to know that there is no element of chance or likelihood of mishap in her cooking arrangements; that meals will be ready promptly on time.

The Gurney Economizer is an assurance against accident and mishap in cooking. It is a simple device and found only on the Gurney-Oxford. One lever controls everything. The fire can be slowed down for hours and revived in a few minutes. An arrangement of flues makes the Gurney-Oxford Oven always uniformly heated—the Gurney-Oxford Oven is never to blame! It will make a good cook a better cook; it does more than its share towards making every meal a success and a pleasure.

The **Gurney Foundry Co. Limited**
TORONTO - CANADA

MONTREAL HAMILTON WINNIPEG CALGARY VANCOUVER

(3)

THE FARMERS' POWER PLANT BOLINDERS SEMI-DIESEL CRUDE OIL ENGINE

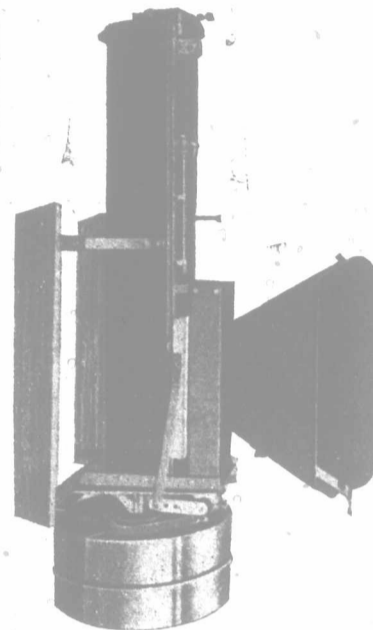
This handy little tool will save you hundreds of dollars. Not alone in replacing labour but in upkeep and running cost as compared with Gasoline engines. A 12 H.-P. Gasoline Engine costs you 30 cents to operate per hour. Our Crude Oil Engine only costs 6 cents per hour. Our engines are designed and built to stand hard work. They will outlive three or four gasoline engines. There is absolutely no risk from fire or explosion as it uses non-inflamable crude-oil.

If visiting the Exhibition see our stand
in Machinery Hall and make inquiries.

THE CANADIAN BOVING CO., LTD. TORONTO, ONTARIO
164 BAY STREET

8

THE BESSER SIMPLIFIED CONTINUOUS MIXER.



We make a complete line of

Concrete Machinery

POWER CEMENT DRAIN &
SEWER TILE MACHINES,

HAND CEMENT DRAIN &
SEWER TILE MACHINES,

POWER CEMENT BRICK
MACHINES,

CARS AND TRACK FOR
CONCRETE PLANTS,

HAND CEMENT BLOCK
MACHINES,

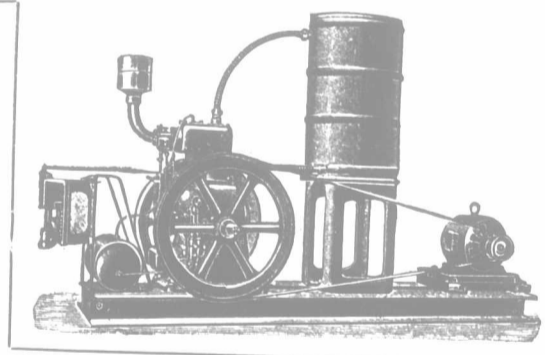
POWER TAMP MACHINES FOR BLOCKS AND TILES,
ALSO WINDMILLS, TOWERS AND TANKS.

Write for catalogue.

Woodstock Wind Motor Co., Ltd.

WOODSTOCK, ONT.

Electricity in Your Country Home



THE LISTER-BRUSTON AUTOMATIC ELECTRIC LIGHTING PLANT

Starts itself! Stops itself!

When and where Light is required just turn
the Button.

While at the Canadian National Exhibition be sure you see the Lister-Bruston Lighting Plant in operation in our own building opposite the Process Building.

Electric Light from the **Lister Plant** cheaper than Acetylene or Gas.
Plants already installed giving entire satisfaction.

Write or call

R. A. Lister & Company, Ltd.

58-60 Stewart Street, Toronto, Ont.

Branches Winnipeg, Man. and St. John, N.B. Stuart A. Lister, Manager

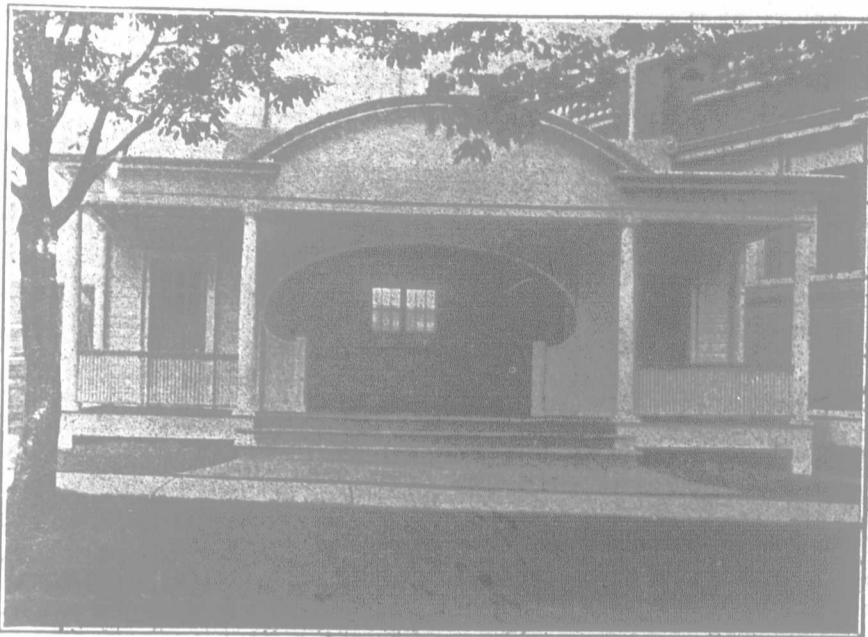
Please Mention The Advocate

The German Potash Syndicate

Cordially invites those who are interested in agriculture to visit the new **G. P. S. Pavillon**, near the Poultry Building, at the Canadian National Exhibition, where the results of numerous Fertilizer Experiments, conducted in Canada, will be shown and free illustrated bulletins may be obtained. A staff of experts will also be present to give advice on the **Rational Use of Fertilizers**.

THE G. P. S. PAVILION UNDER CONSTRUCTION

POTASH
means
PROFIT



POTASH
promotes
MATURITY

AT THE C. N. EXHIBITION, TORONTO, 1912.

In view of the rapidly increasing consumption of fertilizers, and the necessity of learning the requirements of various crops and soils, in order to fertilize intelligently, no farmer attending the Exhibition should fail to visit the **G. P. S. Pavillon**, where much valuable information may be obtained.

The **German Potash Syndicate**, of Toronto, never solicits orders, its work being of a purely educational nature.

Experiment on Mangels conducted by Geo. Peacock, Merton, Ont.

POTASH
increases
QUANTITY



POTASH
improves
QUALITY

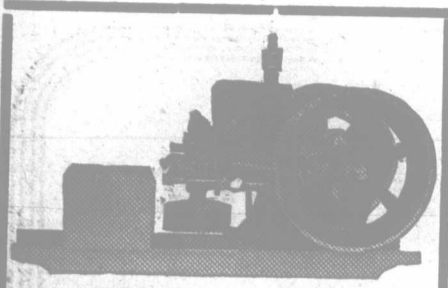
UNFERTILIZED. Yield per acre, 556 bushels. FERTILIZED, with 130 lbs. Muriate of Potash, 40 lbs. Acid Phosphate. Yield per acre, 1,280 bushels.

POTASH is one of the three essential Plant Foods, the others being Nitrogen and Phosphoric Acid. In order to produce maximum crops, each of these three ingredients must be present in sufficient quantity for the needs of the particular crop and soil. If **POTASH** be deficient in a soil then no matter how much Phosphoric Acid and Nitrogen are supplied, full yields cannot be obtained until the demand for **POTASH** has been satisfied.

If unable to visit the Exhibition, write for Free Illustrated Bulletins, which include :

- " Artificial Fertilizers ; Their Nature and Use " ;
- " Fertilizing Fodder Crops " ; " Farmer's Companion " ;
- " The Potato Crop in Canada " ; " Fertilizing Orchard and Garden " ; etc.

The German Potash Syndicate, Temple Building, Toronto, Canada



Simple, Durable

With no complicated working parts, "Bull Dog" Gasoline Engines are built especially for use on the farm. They will stand long and hard service out of doors.

"BULL DOG"

Gasoline Engines

are built in six sizes, from 1 1/2 to 16 h.p. Adapted for stationary, semi-portable or portable mounting. Liberal bearing surfaces and up-to-date construction throughout. Get prices and catalogue from our Canadian agents.

**BATES & EDMONDS
MOTOR COMPANY**
Lansing, Michigan

General agents for Canada:

**A. R. Williams Machinery
Co., Limited**
Toronto, Ont. St. John, N. B.

**THE
Stratford
Extension
Ladder**

IT IS

strong, serviceable, light, easily operated and durable, with wire-trussed reinforced sides.

If interested, write for booklet H, which tells all about this and other lines of ladders.

**The Stratford
Mfg. Co., Limited**
STRATFORD, ONTARIO

Mr. Farmer, Listen!

YOU CAN GET A

Wilson Gold Medal Scale

Freight paid by Wilson to your nearest station for less than wholesale prices. 100 styles Hay and Cattle Scales. Easy terms to pay if you

WRITE TO-DAY.

C. WILSON & SON,
79 Esplanade St. E.

Toronto, Can.



CHURCH BELLS

CHIMES AND PEALS

MEMORIAL BELLS A SPECIALTY

FULLY WARRANTED

McSHANE BELL FOUNDRY CO.,
BALTIMORE, Md., U. S. A.

Established 1866



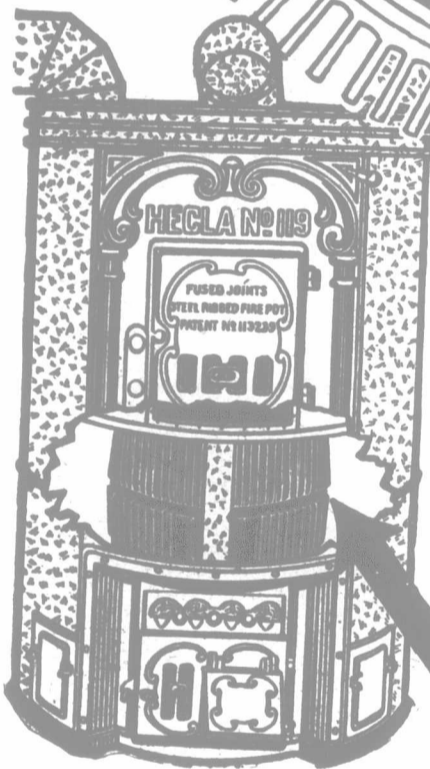
**Saves one ton
in seven**

Figure up your annual coal bill, divide it by seven, and you have the amount the Hecla Furnace will save you every year. ¶ The steel-ribbed fire-pot does it. Adding steel ribs to the fire-pot increases its radiating surface three times more than is possible by any other method. The steel-ribbed fire-pot heats the air quicker. It sends the heat through the registers instead of up the chimney. ¶ Examine the Hecla. Compare it with other Furnaces. ¶ You will find every feature that makes for convenience and ease of operation. But the Hecla is the only one that has the Steel-ribbed Fire-pot—the fire-pot which saves thousands of users one ton of coal in seven.

Section of fire-pot showing ribs of steel plate which save 1 ton in 7.

**HECLA
FURNACE**

No Gas or Dust



Burns wood as well as coal.

And this furnace cannot possibly leak gas or dust. The joints, usually bolted or cemented, are fused in the Hecla in a perfectly tight joint. Time and service cannot loosen the Fused Joint. The fusing welds the Hecla Radiator into one piece.

Our Booklet "Comfort & Health" should be in the hands of everyone who has a heating problem to solve. It will be sent free of charge.



CLARE BROS. & CO., LIMITED,
Dept. L, Preston, Ont.

The Best Built Roller

Is the "Bissell," with DRUMS of heavy steel plate, hard in temper, riveted up close, having pressed steel heads.

With AXLES of 2 inch solid steel revolving on cold rolled Roller Bearings.

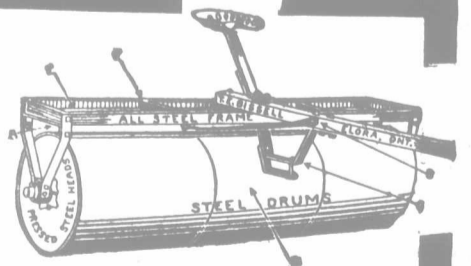
With the MALLEABLE CAGE in one piece, holding the Roller Bearings in line on the axle.

With DRAW BRACKET under the Pole, making the draught down low.

With the FRAME all of steel and the improved steel plate bottom.

You may be told that other Rollers are like the Bissell—but there is only one original Bissell

Roller and to save our customers disappointment, we put our name on every Roller we build. Look for the name "Bissell" and ask Dept W for catalogue describing the "Best Built Roller."



Several styles and a variety of widths to choose from, 6 ft. up to 12 ft. Grass Seeder Attachment also furnished if required.

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

Look Us Up at the Dominion Industrial Exhibition

WE WANT TO MEET YOU ALL, WHETHER YOU OWN AND OPERATE A



DRILLING MACHINE

Or would like to know what kind of a money-making proposition it is.

It will be a pleasure to meet and show you why we claim the

"Standard"

Is more easily operated

Is more economical in fuel

Is more economical in repairs

And will do its work quicker than the other fellow

The Dick

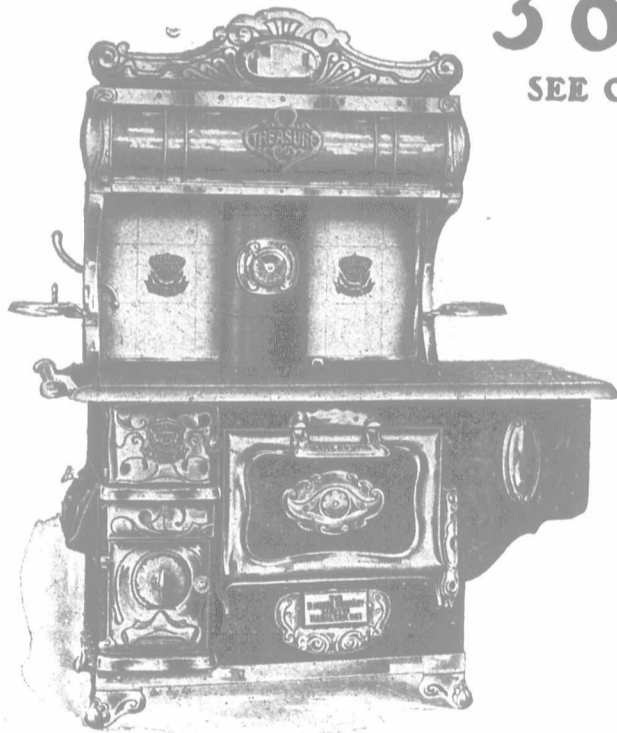
Well Drilling Machine Co.,

BOLTON, ONTARIO, CANADA

Elegance and Rapidity

3 of Moore's Treasure Leaders

SEE OUR EXHIBITS AT TORONTO, LONDON and OTTAWA EXHIBITIONS
Quality and Perfection



Sovereign Treasure Steel Range
(Coal or Wood)

Showing our beautiful tile back. (In high closet.)
Large 20-inch oven. Large perfect firebox.
Nickel rails lift off around polished ground top.
Made of best heavy steel plate (highly polished Wellsville steel).



British Treasure Range
(Coal or Wood)

All nickel rails, panels, etc. All lift off.
Made in 20- and 18-inch oven.



Comfort and Beauty



Empire Treasure Base Burner

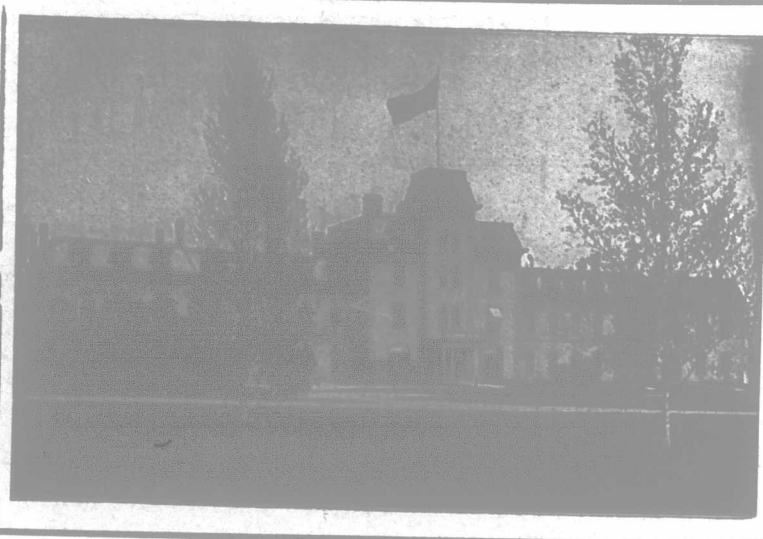
Made in two sizes, 14- and 15-inch firebox.

The D. Moore Company, Limited

Absolutely guaranteed.
Write for circulars and information.

Hamilton, Ontario

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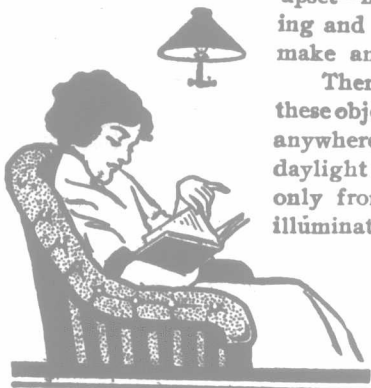
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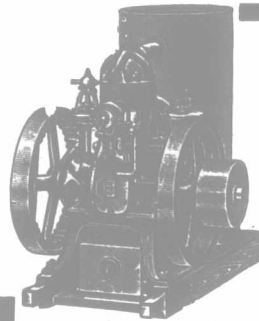


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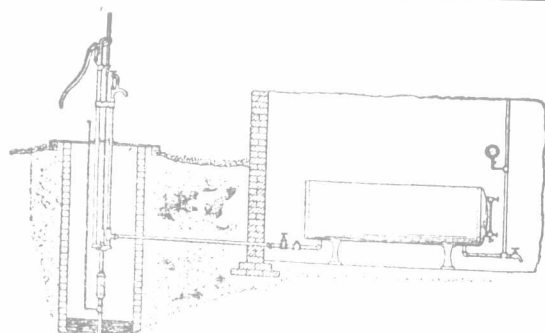
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EDITORIAL.

Every fair goer follows his own impulse. To many, a visit to the exhibition is principally a holiday. This it may well be, but it may also be made an excellent opportunity for keeping abreast of the times in agriculture, industry and art.

An automatic cigar smoker is an American device for burning under uniform and controlled conditions a large number of cigars used in laboratory tests. There are those who will consider it would be better if all the cigars were smoked that way.

In a neighborhood where silos are numerous, filling becomes quite a problem. Everyone wants the few loose men usually available for such work and one does well if he keeps his own regular hired help. Labor-saving methods and hearty co-operation are about the only suggestions toward solution.

It is extremely poor economy to snatch every possible bite from the new seeding of clover. Unless quite strong and fairly even it should not be grazed at all and in no case should pasturing be allowed when the clover is frosted. Autumn grazing of new seeding, unless very judiciously permitted is liable to subtract from half a ton to a ton per acre from next season's cut of hay.

August 13th and no hay cut, writes a correspondent from Westmoreland, the great Bay-of-Fundy marsh district of New Brunswick. Of course the season there is usually much later than in Ontario, but this one is very exceptional even for the Maritime Provinces. In Middlesex Co., Ont., most of us were finished by about July 20th and thought that deplorably late.

The United States Postmaster General is quoted as authority for the statement that during the last fiscal year the American people were swindled out of about \$120,000,000 by rascals who operate mainly through the United States mail. More than 1,000 of these swindlers had been arrested and 452 sentenced to jail or penitentiary, while 571 others were still awaiting the final decision of the courts.

"But with all your eager striving,
Are you getting anywhere?"

—is the refrain of one of S. E. Kiser's best poems. We often think of it in connection with farm practice. The question is worth laying to heart. In no phase of husbandry perhaps does it apply more pointedly than in breeding. Have an ideal worth while and try to get there.

Some of the largest alfalfa growers in Iowa claim that alfalfa is not more difficult to cure than red clover. Some claim it is easier. Given equal weather conditions in each case, their claim will certainly hold true. The way a well-built coil of alfalfa will shed rain is astonishing. We turned out a few cocks the other day which had been subjected to a week of muggy weather with drenching rains every day or so, and while in this case some mold had inevitably developed the centres of the coils were still quite bright and fresh.

Deepening Farms with Dynamite.

The use of low-grade dynamite containing about twenty per cent. of nitroglycerine for removing stumps and boulders impeding cultivation on the farm has been proven an unqualified success at many local demonstrations, as well as in the hands of numerous farmers employing it in ordinary use. The Farmer's Advocate of May 16th, 1912, described the results of a public demonstration at Weldwood, and we have ourselves since used the stumping powder, as it is called in Canada, with very satisfactory effects. Boulders weighing nearly a ton have been repeatedly shattered to pieces with a couple of half-pound cartridges, costing about fifteen cents for the whole charge, cap, fuse and all. To break boulders lying out of the ground the powder is merely laid on top of the stone with capped fuse inserted in one stick, a few shovelfuls of earth are thrown over the charge, the fuse is ignited and speed made for a safe point thirty or forty rods away. It is very simple, very easy, and comparatively cheap. With proper care it appears to be quite safe. Likewise with stumps, any-sized sound stump may be blown out and split to pieces by merely using enough powder, judiciously placed. Stumps, of course, can be burned if sufficiently decayed and dry. Boulders do not burn.

But it is of another and newer use for dynamite that we write, viz., cultivating the subsoil. Perhaps its value for this purpose has been most frequently demonstrated in preparing sites for tree-planting. A stick of low-grade dynamite exploded in a hole made with a crowbar will break up a hard pan in amazing fashion, preparing it for easy permeation by tree roots. For this purpose a low-grade dynamite of say 20 per cent. is especially advised. A high explosive compacts the soil about it and may make a good-sized cavity to fill in. Low-grade powder leaves the soil delightfully broken up. Anyone who has observed the effects of a charge will be quite prepared to expect decided benefits from its use on hard-bottomed soils.

Not only as preparation for tree-planting but for general cropping is dynamite recommended. Several sensational articles have recently appeared in the British and American magazines and a number of strikingly illustrated pamphlets have been issued by the powder companies. The charges are fired in rows and the effect is as of a great cloud of earth rising in a block or wall out of the ground. The expense is not prohibitive and one blasting is supposed to last for a number of years.

Without being able to verify by experience the claims of enormously increased crop production, we feel warranted in drawing public attention to the idea. The theory seems sound, for a soil with a close impervious subsoil is easily water-logged, is difficultly drained and offers very adverse conditions to plant roots. The possible effect of blasting upon humus content and the danger of dislocating tile drains are practical questions concerning which more light may be forthcoming. If practical and economical, the plan of deepening one's farm with dynamite will certainly appeal.

Feed the Mind.

Feed the soil that it may produce better crops. Feed the cow that she may yield abundance of milk. Feed the teams that they may economize your time in the field. Feed the growing and fattening stock that they may have surplus of nutriment to produce increase in weight.

These precepts have been dinned into us year in and year out by speakers and writers, yea, even by the Farmer's Advocate itself. The advice is sound, but there is something much more important to feed than the cows or the horses or the soil. It is the mind.

In one respect at least the human mind is like a mill. It needs grist to work on. Grist for the mind comprises things observed or experienced by oneself, things observed and noted by one's contemporaries, general information contained in memory and books and other people's reflections or ideas upon subjects of all sorts. No one of these things alone makes a full-sized or well-proportioned grist. He who is content to ruminate upon his own observation and experience must either have a mighty small mental mill or must be running it at a small fraction of its capacity. This is true even of the much-travelled man; still more of the untravelled. To keep our minds alert, active and masterful, we need regular food for thought. And in order that the digested product may be a well-balanced judgment of things it is necessary that the grist be varied in composition, containing in addition to one's own experience a large proportion of the experience and ideas of others.

Applying this to farm practice the moral is plain. Reading of first-class farm journals, abreast of the times, and sparkling with phosphorous from cover to cover, is essential to the highest kind of success in farming. Apart altogether from the information imparted, such reading starts the mental gear working, rubbing off the red rust of inaction, stimulates thought, arouses ambition and incites to high endeavor. Thought food is the greatest part of the value received for the subscription to a good agricultural journal. Feed the mind. It pays better than feeding the stock and will lead to that in time. The largest success is won not by the diligent hand but by the active brain. These together make the winning team.

The Purpose of Exhibiting.

In order to bring together large and representative exhibits it is necessary to offer substantial prizes and to have a diversified classification. Dealing with live stock in particular there are several motives which the exhibitor has and should have in mind when considering the advisability of entering his herd, flock or stud at any large exhibition. Judging from the fact that the amount of prize money offered is more or less of a determinate factor in the number of entries which come forward, one might be led to believe that the prizes themselves were the main incentive to breeders to fit and show their best animals. True, the more compensation in awards, the better the exhibitor's chance to break even, but as a rule there is little or no profit accruing directly from the prizes won, as much money is needed to defray all the expense incurred in fitting, shipping, grooming and care of the animals to place them in the ring in a condition to win the money. Competition is so keen and the prize money so well divided that there is very

THE FARMERS ADVOCATE AND HOME MAGAZINE

THE LEADING AGRICULTURAL JOURNAL
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JOHN WELD, MANAGER.

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little net profit on the undertaking from the viewpoint of prize money alone. Large prizes serve to meet to a certain extent the increased expense and therefore are a consideration.

Of far more value than the money won is the publicity gained and as an advertisement exhibitions are successful from the viewpoint of the stock breeder. The herd is brought before the public in the ring and through the accounts of the winnings, which are published far and wide throughout the land. The keener the competition the more valuable the winnings. It is this phase of the game that aids much in inducing men to run the risk of trivial direct financial loss and take their best individuals to the exhibitions. Winners sell on sight and command good prices. But this is not all, the entire stock is advertised and dozens of animals left at home are brought before buyers through their more fortunate sisters and brothers who have won a red or blue at the show. This brings many a breeder out who would hesitate if such were not the case.

Human nature likes to be honored. It is an honor to own a champion. It is an honor to own winners in our closest competitions, provided such winners get their laurels fairly. To the man of means the satisfaction of being able to win is worth the cost of exhibiting and he does so partly on this account.

But are these all the purposes our breeders have in exhibiting? We hope not and we know they are not. While all these are factors, there is one other which is nobler of all which rises above the plane of mere pecuniary gain, and which is of prime importance to the live stock industry. Every live stock exhibition is an education to thousands of onlookers. Every breeder who has spirit enough to exhibit his stock has the welfare of his particular breed at heart. He believes in it. He wants to see it progress. He knows by exhibiting he is doing the breed good. It grows in favor and as it grows in favor new herds are established and more men profit by its good points. He shows for the good of the live stock industry and for the welfare of the people. Incidentally he gains, for as people become educated to keeping better stock, know good stock when they see it and advance the live stock industry, his business increases, but his is not the only business which increases. All others interested in the breed are helped. The prime purpose of exhibiting his stock is to use it to educate the public, to impress upon them its value and to ultimately be of service in the advancement of the industry through the establishment of new herds.

HORSES.

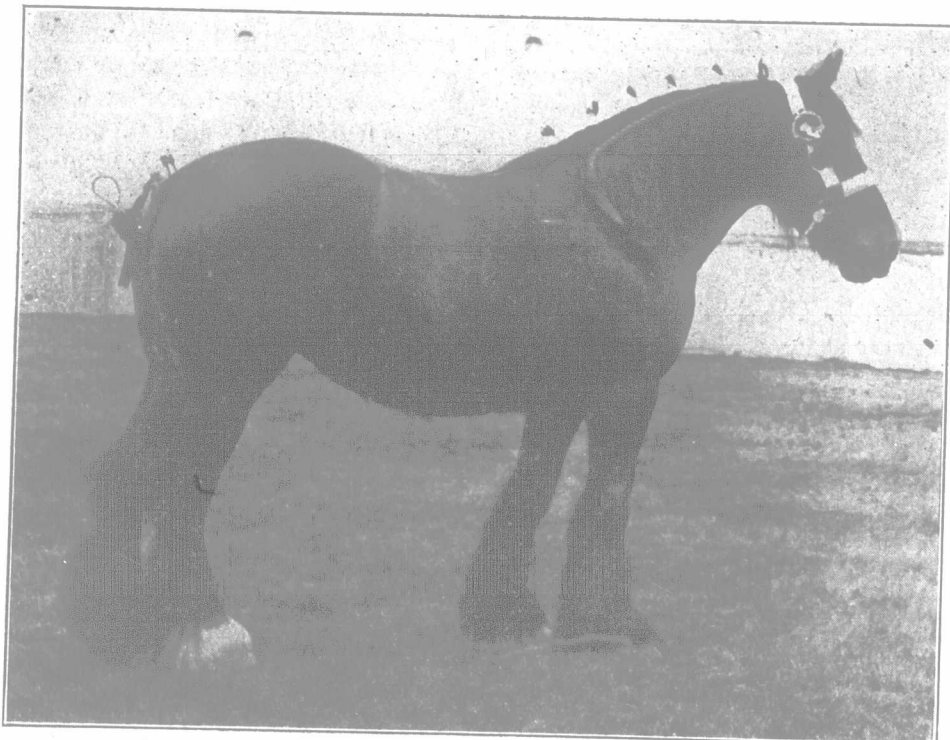
If the whip was less used, and used more judiciously when necessary, there would be fewer nervous horses.

Crushed oats are good feed for the foal, and also for any old horses which may be needed for fall work, and which are out of condition.

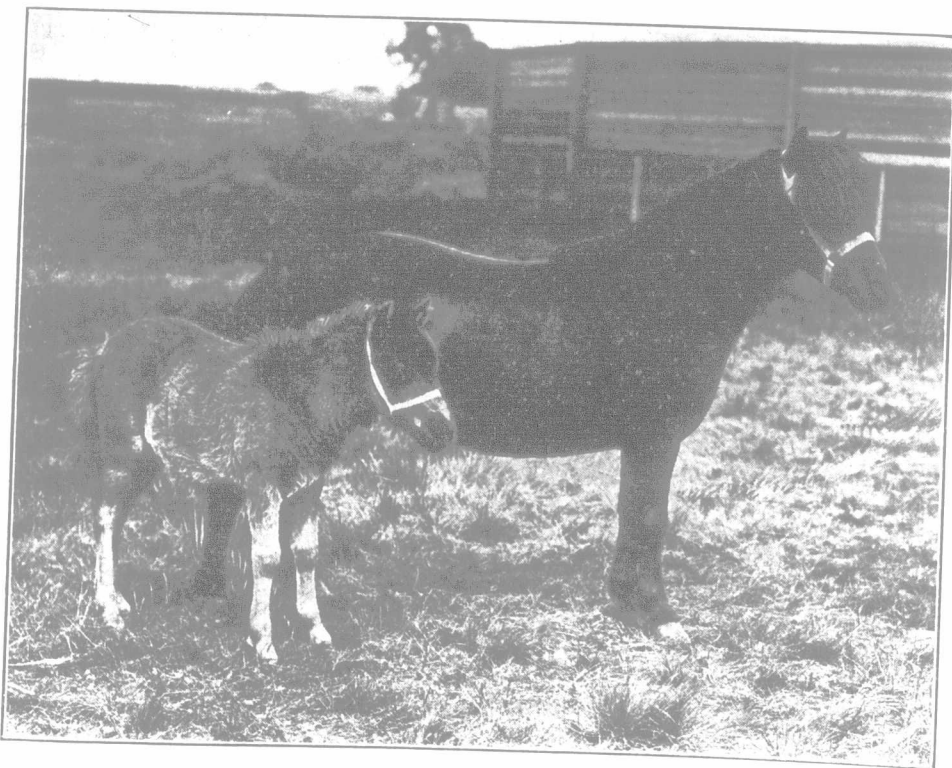
Many turn their work horses out to grass when harvest is over, and fall cultivation is the main work on the farm. All grass-fed work horses should get some hay to counteract the purging effects of the succulent grass.

While the brood mare is never the worse of a little work, and in fact is better doing a little, she should not be compelled to do the heaviest of it. Work should be a secondary consideration with a valuable breeder.

Good wheat bran is one of the safest, cheapest, and best regulators for the horse's digestive system. A little fed with the grain ration is invaluable to brood mares, stallions, and foals.



Lorna Doone.
Champion Shire mare, Royal Show, Doncaster, 1912.



Thralind.
Shetland pony mare (with foal at foot). First and champion, Royal Show, 1912.

Few stallions get the amount of exercise during the off season that is best for them. Henry says in "Feeds and Feeding": "No draft horse under ordinary circumstances, should have less exercise than five miles a day, and the roadster, and running horse, may safely have six, which in some cases should be increased to eight or ten.

We are not inclined to think favorably of barley as a horse food in this country, and oats are rightly used to make up the major portion of the horse's grain ration, but there are many

countries in which barley forms a large part of the grain ration of horses. No one who has seen Arab horses could fail to admire their beauty, and barley is the main feed of these in the land of their origin.

During the wet weather, in fall, winter or spring, the legs of the horse are the most exposed to water, slush and mud. The feet and legs are one of the most important parts of the horse's make-up, and should receive extra care. A worn broom is a good brush to remove dried mud and each night the legs should be cleaned and rubbed dry.

There is a direct connection between the weight of the horse, and his power to pull heavy loads, the heavier he is, the greater load he is able to move, that is, if two horses have equal muscular development, and one weighs considerably more than the other, the heavier horse uses his extra weight to advantage, and is able to move greater loads. Do not overlook muscling in the draft horse, but insist also on weight.

The Motive Power of the Horse.

When we think of motors our mind travels to electric, wind, steam or some other class of

power other than animals. Now the fact is, animals, particularly horses are still the most used, and the most valuable motor power on the farm all things considered. Here is what King in his "Physics of Agriculture" says of animal motors: "When animals are viewed from the standpoint of machines, they are wonderful mechanics. Not only are they self-feeding, self-controlling, self-maintaining and self-producing, but they are far more economical in the energy they are able to develop from a given weight of fuel material than any other existing form of motor.

"While they are like the steam engine in requiring carbonaceous fuel, oxygen and water for use in developing energy, these are made to combine in the animal body at a much lower temperature than is possible in the steam engine, and a much smaller proportion of the fuel value is lost in the form of heat when work is being done.

"The essential elements which constitute the horse a machine for developing power are: (1) a system of rigid levers united by ligaments and capsules at the joints, which are automatically lubricated by a synovial fluid; (2) a system of muscles, each one of which is a motor corresponding in function to the piston and cylinder of a steam engine; (3) a fuel supplying and waste re-excretory system, consisting of the digestive, excretory and respiratory organs; (4) a co-ordinating and regulating mechanism, consisting of the nervous system, which throws the different motors or muscles into and out of action at the times needful to secure the results; (5) a protecting and insulating system consisting of the skin and hair which keeps all of the working parts free from dust and reduces the waste of heat."

What a completed piece of machinery is the



King of the Air.

Champion in driving class, Highland Show, 1912. Mrs. A. T. Gordon.

horse. Is there any wonder that soundness in every part is imperative if highest efficiency is to be obtained? Take any other motive power you will, and just as soon as any important part thereof is out of true the result is disastrous. A break occurs. The efficiency of all motive power depends upon the soundness of it. No other power will do profitable work when operating under as many unsound conditions as the horse is often forced to do, and every strained ligament, every diseased lever or bone, every undeveloped or over strained muscle, every disease of the digestive, respiratory or nervous system, in short every unnatural condition, lowers the working efficiency of the horse, just in proportion to its severity and vital connection with his power generating ability.

The horse is a truly wonderful animal. Muscles work by shortening and pull, and are only able to work through short distances. The animal is then composed of a large number of powerful little motors. King figures that about the maximum walking draft of a horse is one-half his own weight, and when pulling with this intensity and travelling two and one-half miles an hour, a 1600 pound horse is able to produce five and one-half horse power. (A horse power is that power able to lift 500 pounds one foot per second, or 33,000 pounds one foot per minute). This would be a strain which no horse could stand repeated often. A pull of one-fourth the horse's weight is too great for steady work, and for a 1600 pound horse is two and two-thirds horse power, or two horse power for a 1200 pound horse, according to King's figures. And this writer claimed that for steady work, a pull of one-eighth to one-tenth of the horse's own weight at two and one-half miles an hour is heavy enough, and for a 1600 pound horse would be from 1.06 to 1.33 horse power.

A good example of work done by horses is ploughing. King estimates that in travelling two and one-half miles per hour and ploughing a furrow ten inches wide and six inches deep 2.15 H. P. is required. If the furrow is twelve inches wide it requires 2.58 H. P., and at fourteen inches wide 3.02 H. P. Then at four inches deep a furrow ten inches wide requires 1.44 H. P., one twelve inches 1.72 H. P., and one fourteen inches 2.01 H. P.

These figures give some idea of the work required of horses in comparison with that required of other powers, measured in like terms (H. P.) for each. The immense strain exerted upon the horse in doing his work, demands that every part of his system be in the best possible condition. Soundness, quality, vitality and muscling should be the guide of the breeder.

This Was in the States.

In the course of an address on "Country Schools," B. F. Harris, President of the Illinois Bankers' Association, made use of the following striking illustration, which, it is hoped, would not be applicable in Canada:

"I am reminded of the district where the farmers wanted to improve the breeding of their horses, and they clubbed together and bought a \$3,500 stallion. Being a fine horse, he needed a first-class groom, and they hired a man at \$75 a month and board, to care for that horse. About that time they needed a new school teacher, to train their children and properly equip them as citizens of this great commonwealth, and after much bickering and hair splitting, they hired a frivolous young woman from town, because they could get her for \$30 a month, and she board herself—and the joke was not on the teacher."

and more serious changes in the shape of the formation of pus, hemorrhage from the blood vessels, caries of the coffin bone, or there may be tumor-like growth of the horn on the inner surface of the wall.

CAUSES OF QUARTER CRACK.

One of the causes of quarter crack is the faulty confirmation of the animal. In the animal, with turned out toes, more than a fair portion of the animal's weight is thrown upon the horn of the inner quarter; here there are three causes exerting their influence together. The horn is brittle, the wall of the inner quarter is thinner than that of the outer, additional weight is placed upon it and fracture is the result. Another cause for quarter crack is in the condition of the hoof known as contracted heels. With the contraction and its pressure upon the sensitive structures within the region of the quarters and frog has arisen a low type of inflammation and the horn has become dry and brittle in this region. The exciting cause in its fracture is found in a hard day's work upon a hard, dry road, with perhaps a suddenly imposed improper distribution of weight, due may be to stepping upon a loose stone or a succession of such evil transfers of weight due to traveling upon a road that is very rough in its whole extent. Another cause for quarter crack is where the wall is very soft from poulticing or perhaps due to the animal feeding in a pasture that is very moist. When this animal is put to work upon a hard dry street the sudden change from extreme moisture to extreme dryness, combined with hard work, will cause the wall to deteriorate and may be the cause of a crack. Unskilful shoeing also plays a part in causing sand crack. Removal of the periople by excessive rasping is a pre-disposed cause. Cracks or their starting points may also be caused by using too wide a shoe. Poor shoeing does not cause cracks though as much as many other things, for more depends on the state of the wall and conformation than upon the existing cause.

Toe crack is met with nearly always in a heavy animal, in the hind feet, and is directly attributable to starting a heavy load.

Sand crack of the sole and frog is but seldom met with and then it is in connection with some exceptionally deteriorated quality of the horn, or occurs as the result of a direct injury and from a badly pumiced foot.

TREATMENT.

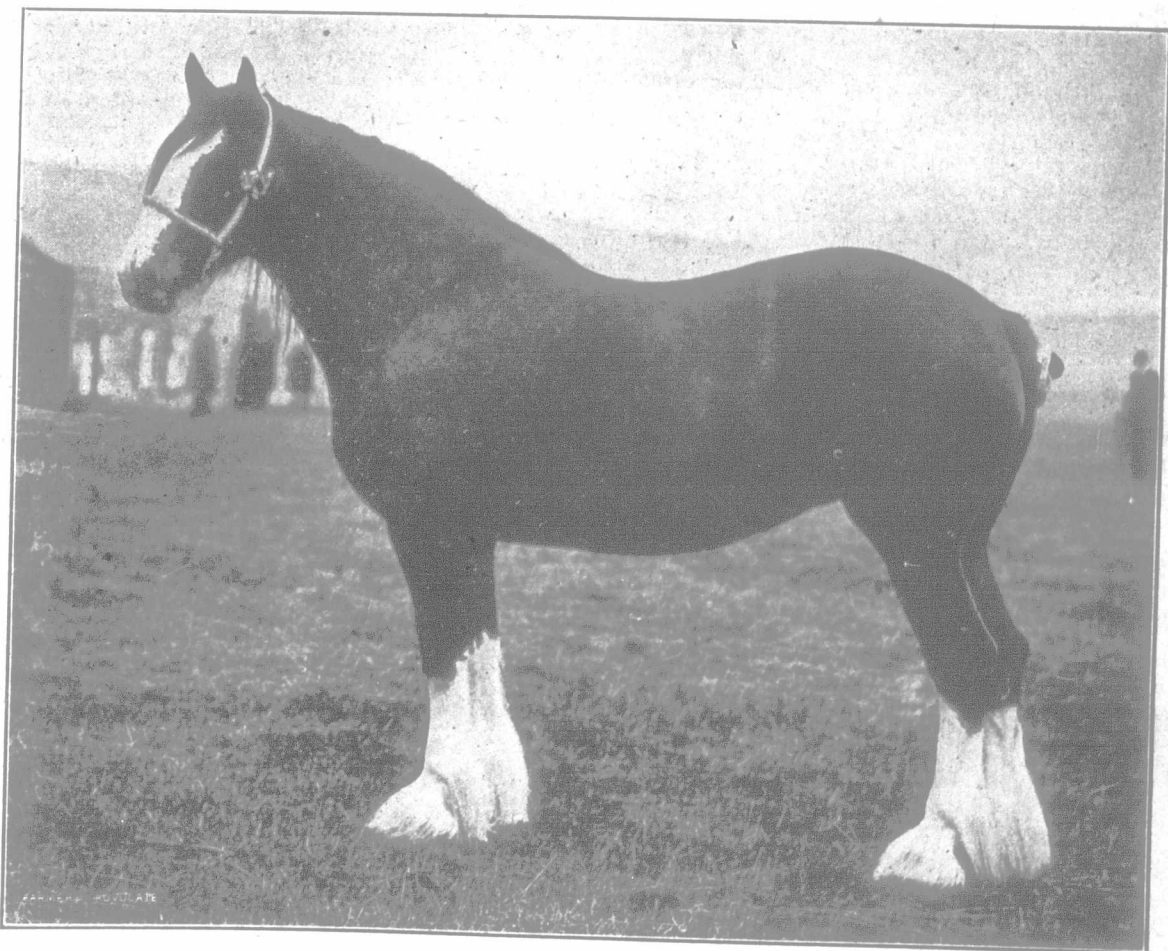
In a simple case where the crack is superficial and close under the coronary margin of the wall, a sharp cantharides blister to the coronet immediately above it will be very effective, as in this manner an increased secretion of the horn is brought about and the crack prevented from becoming longer. No matter what treatment you use a blister applied to the coronary margin is always beneficial. To get the best result from a blister it should be repeated several times and at intervals of about two weeks. Another method

The Various Hoof Cracks.

The following by Robert Cilker, a student of the San Francisco Veterinary College, has recently been published in circular form by that institution, and is of value to horsemen generally:

SAND CRACKS.

Sand cracks are classified according to their location. They are called toe cracks when occurring in the middle line of the horn of the toe, and a quarter crack when occurring in the horn of the quarters. There are also sand cracks of the sole and of the frog met with, but are not plentiful, and not rarely serious enough to cause much trouble. The toe crack is met with more often in the hind foot than in the fore, while the quarter crack is met with more often in the fore feet, and is here usually confined to the inner side. The portion of the wall known as inside and outside of the toe is seldom affected. A crack is called complete when it extends from the coronary margin of the wall to its wearing edge, and is incomplete when it is not so extensive. A simple crack is one that occurs in the horn only and does not implicate the sensitive structures beneath. A complicated crack is one that is deep enough to allow of laceration and subsequent inflammation of the sensitive membrane; such complications may vary from a simple inflammation set up by laceration, and irritation of the sensitive structures, by particles of dirt and grit that have gained entrance through the crack, to other



Boquhan Lady Peggy.

Cl-de-cale mare. First in class and reserve for President's Medal, Highland Show, 1912.

known as clamping the crack is usually used where the crack is rather long. There are a good many different kinds of clamps. One of the best is rather wide with five teeth on the side. A groove is burned on each side of the crack to accommodate the jaws of the instrument and the clamp itself pressed home by means of a special pair of forceps. No clamps should be put on unless the wall is moderately strong, and the wall should be thick. All clamps are put on for the same purpose, to try and stop any movement of the wall in the region of the crack.

Other means employed are by paring out on both sides of the crack, starting about a half an inch on both sides of the crack and cutting it out to the bottom at an angle. Apply an antiseptic dressing and over this cotton, then wrap the whole foot with tape as tight as possible. The tape is used for two reasons, to dry and keep out as much dirt as possible and stop the movement of the wall in the region of the crack.

The following prescription is one of the most beneficial used in the treatment of cracked or brittle feet: Yellow Wax, Olive Oil, Dard, Venice Turpentine, Honey, of each 8 ounces. Melt lard, wax and honey (slow fire), then add the rest, and stir until cold. Apply once daily.

SURGERY.

This method is only indicated when the crack is greatly complicated by the presence of pus, or by the growth of adventitious horn on the inner surface of the wall. When the crack does not extend the whole length of the wall, the best method is to cut out a triangular piece with the base uppermost, cutting as deep as the sensitive lamina. With the removal of the horn the diseased structures are exposed to view. All such should be removed by a free use of the scalpel and a suitable dressing afterward applied. If the crack runs the whole length of the hoof take out a piece on either side of the crack, the whole length of same. After treatment is exactly the same as the one just referred to.

SHOEING.

A partial rest is given to the affected parts by easing the bearing of the shoe at the point required. This may be done either by removal of part of the wall at the spot indicated, or by thinning the web of the shoe in the same position. Never have a clip directly under the crack or where the weight would fall. If it is a toe crack the usual clip should be dispensed with and a clip on each side made to take its place. At the same time care should be taken to avoid throwing the weight far forward. In case of a quarter crack, where the constant movement of the part under the expansion and contraction of the foot makes itself most felt, it is wise to apply a shoe with clips fitting moderately tight against the inside of the bars. By this means movement will to a large extent be stopped.

LIVE STOCK

See that the ram is healthy and rugged at mating time.

Sunlight and fresh air are almost as essential in calf rearing as feed.

Too much skim milk will do a calf more injury than not enough.

There is no better time than the present to select a pen of good breeding ewes.

The sow must be strong and in good condition at time of service if a large litter of good pigs is to be produced.

A good type of feeding steer is a joy forever, while the scrub, no matter how he may be managed, spells loss to the feeder.

No sow should be bred until she is eight months old and very often from two to four months more on her age, is more beneficial than otherwise.

Up to six weeks of age from 14 to 18 pounds is enough milk for the pail-fed calf, and after this age the amount to feed must be increased only according to the calf's constitution and development.

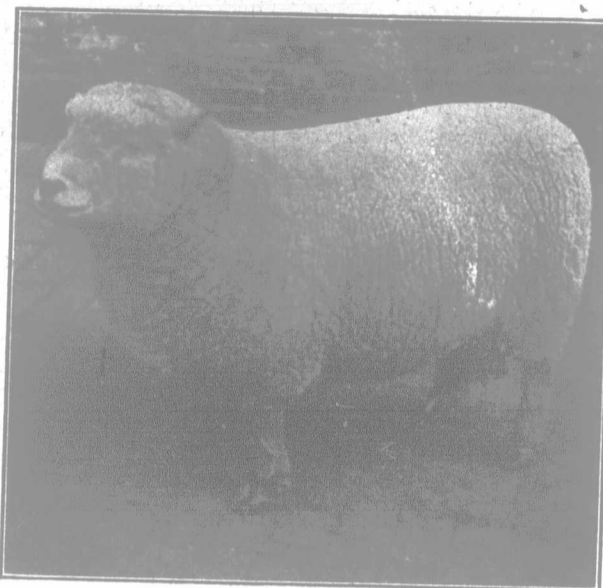
Keep a little fresh paint on the breast of the ram during the breeding season. It is very little trouble and in doing it no difficulty is experienced in ascertaining the date of service of each ewe and it also serves as a check on the rams' sureness as a breeder.

Good breeding heifers are what is needed on many farms at the present time. How are they

to be had? Stop vealing promising heifer calves, practice selection and use the best available bulls.

Factors Influencing the Breeding Season of Sheep.

Unlike all other classes of farm stock, the autumn season is the chief rutting season of sheep. There are a few breeds which will breed twice a year, but even where these are kept in this country, the best breeders do not look for more than one lamb crop annually. One good lamb crop is worth more than two poor ones, and one good lamb is more profitable than two scrubs. Yet under good management, every breeding ewe on the farm should be physically fit to give birth to and raise two good lambs a year, not at two yearlings, but at one. It never happens that all ewes in the flock have two lambs at a birth, but a large percentage of them should have.



Chevely Modest (imp.).

Two-shear Southdown ram, undefeated for first prize during entire show season of 1911, including the Chicago International. Owned by Robert McEwen, Byron, Ontario.

One of the first things to be considered in turning the ram with the ewes in the fall, is the time that lambs may be best attended to, in the spring. The gestation period for a ewe is, roughly speaking, five months. The average of extensive experiments carried on in France, and also in Wisconsin, was from 147 to 152 days. Thus if the lambs are desired the first of March, the ram should be placed with the ewes the end of September or the first of October.

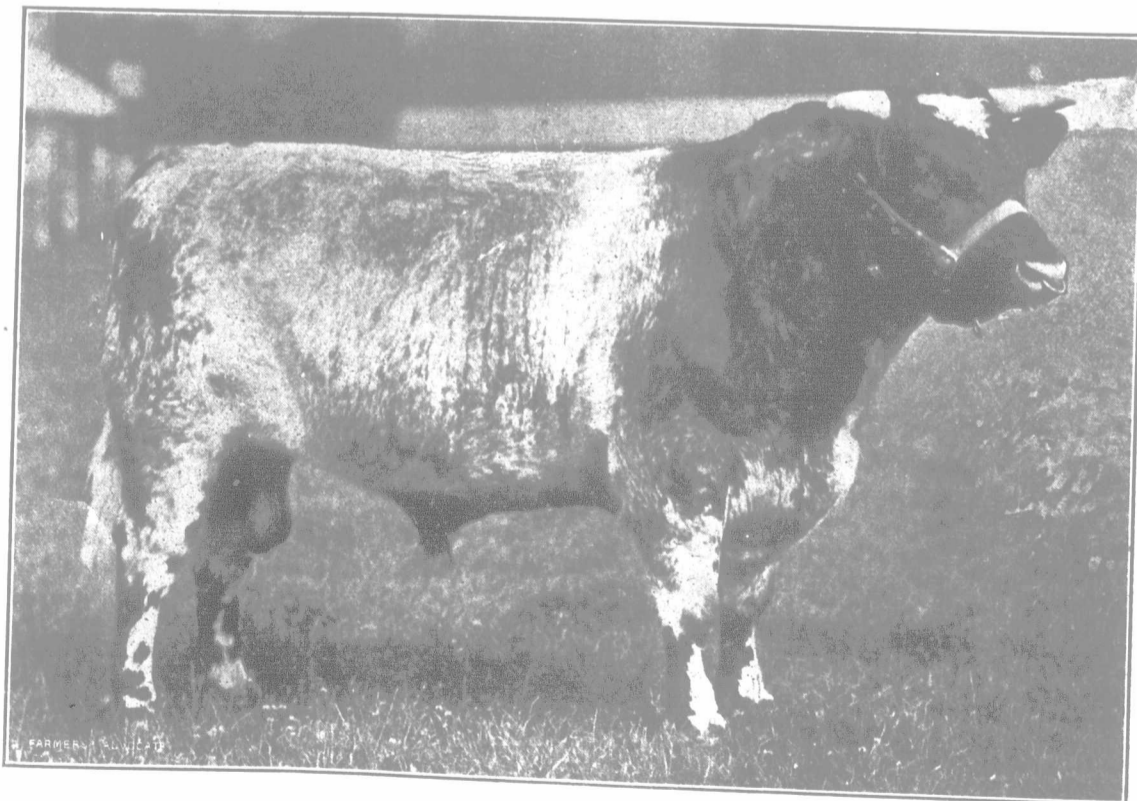
The outlook for feed is an important factor in determining the time of the mating season. The earlier the lambs the more feed required. Ewes which do not year until grass comes require much less feed than ewes suckling lambs, and will do well on about half the feed required by the ewe which, besides herself, must feed one or two "husky" youngsters. Of course early lambs get a better start, and are usually larger the following fall than later lambs, provided feed is plenti-

ful, but if feed is scarce, the lamb which comes on an abundant pasture will very often catch up with, and even outdistance, the one dropped in late winter or early spring, under the disadvantage of a feed shortage, which has given him a set-back and materially injured his growth. Where feed is plentiful, that is clover or alfalfa hay, good roots and grain, preferably oats, have no hesitation in turning the rams with the ewes comparatively early, provided other conditions are favorable.

Another factor, and an important one not always considered by beginners and careless breeders, is the condition of the ewes at time of service. This is largely influenced by the time the lambs are weaned, which, as a rule, should be in August. Ewes in poor condition as a result of short pastures, and the partial nourishing of lambs to a late date are not in a good state to breed. Experience has taught breeders that there is a profit in feeding the ewes well for a time before breeding them. Placing them on a fresh pasture after weaning the lambs, and, if necessary, giving a little grain, materially increases the lamb crop the following year, as ewes gaining in flesh invariably produce more strong twin lambs than those bred in low vitality. Place the ewes in good condition before breeding.

Much of the success of the lamb crop depends upon the ram. And whether or not he does justice to himself, is largely dependent upon his condition during the breeding season. It is seldom, if ever, advisable to use a lamb, but a good lamb is often more valuable than a questionable shearer or two shear ram. A strong lamb may successfully serve a small flock, but for the sake of the ram, and the lamb crop, do not overwork him. Where a lamb is to be used it is often advisable to postpone the breeding season, until a comparatively late date, and to feed the lamb well, in the meantime keeping him separated from others of his kind to encourage development as far as possible before he commences service. It is always well to put the ram in good condition for the work required of him, and usually a little grain fed to him will give profitable returns. The ram must be kept active. To do this exercise is essential. An aged ram, which has become fat, clumsy and lazy, often must be reduced in flesh, and the only way to do it, is to make him exercise. Halter-break him, and lead him back and forth from the field to the barn where he is kept for the night. All rams should be kept inside a part of the time during the breeding season. Some keep them in nights, others during the day, and some let them run with the flock only until they have served all the ewes in season at that time, and shut them in again, letting them out morning and evening. Where a ram is called upon to do very heavy service this is sometimes necessary, but where the flock is small, keeping him in nights and allowing him with the ewes during the day is all that is necessary.

Labor is another factor, which enters into this question. The busiest time for the shepherd is the flock's yearning time. Few farms in this country have a shepherd who does nothing else but look after the sheep. The farmer is usually horseman, cattleman, dairyman, pigman and shepherd as well as being general chore boy, and foreman of the ranch. This necessitates that the lamb crop comes when other work is not pushing, spring is the only time for the lambs, so with most breeders the plan is to have weaning over before farm work commences, or defer it until seeding is completed. The latter being too late



Gartly Landseer.

Shorthorn bull, first in two-year-old class and male champion, Highland Show, 1912.

for best results in breeding stock, most of the lambs are dropped just previous to this period.

Preparing for the Litter.

The fall litters are now or soon will be arriving, and the breeder must be prepared for them, at least a short time before they are farrowed. There is very little difference in the period of gestation in different sows. Observations have borne out the statements often made that young or weakly sows generally bring forth their litters a short time, usually about two days, previous to the expiration of the 112 day period, which the average sow takes. On the other hand, an uncommonly robust high-conditioned sow may carry her litter over 114 days. From two to four days is not a very wide variation, so by keeping a record of the date of service, no difficulty is encountered, and no excuse can be offered for not having prepared for the litter upon its arrival.

The sow should be in the pen in which she is to farrow, at least one week before the pigs arrive, and ten days would be better. This is necessary that she, in her nervous state just previous to parturition, become thoroughly accustomed to her new surroundings, that she may be contented and quiet when her litter arrives. Many a pig has been killed by a discontented sow, in her rambling about her new pen, and in her tossing and turning in her uncomfortable bed, uncomfortable because she has been accustomed to roaming over larger fields or paddocks, and has perhaps sought out and prepared what she intended to be the nest for her offspring in some secluded spot in the woods. Never allow the sow to choose her bed before she is placed in the farrowing pen. It means loss in nearly every instance.

Use little bedding in the pen, cut or short straw preferred, and keep it clean and dry. At parturition the sow shows unmistakable signs of desiring to be alone, and she should be left alone as much as possible. During the time she is penned before farrowing handle her, scratch her back, become acquainted with her, so that in case trouble arises during deliverance she will be used to attention, and will not get cross and excited. Keep watch of her, feed her lightly before and after farrowing, and place a ledge around the inside of the pen, to prevent her from lying on her pigs, crushing the life out of them.

An Auction Mart in Scotland.

Editor "The Farmer's Advocate":

Being in the town of Montrose, on the east coast of Scotland, I went on a Friday to the Auction Mart of the Montrose Auction Co. This Company has an authorized capital of £10,000, of which about 15,000 shares are sold at 15s. per share, of which only 10s. per share is paid up. They have very commodious premises, very well suited for the trade carried on. There are pens for cattle, capable of accommodating four or five hundred, besides smaller pens for sheep and pigs. There is a sale ring surrounded by raised seats in amphitheatrefashion, capable of seating 250 people. The cattle are first driven on to the scales, which have a large dial plate facing the auditorium, so that all the people can see exactly how much each animal weighs before it comes out to be sold. There is a separate door where the cattle are driven out when sold. There is a small office where the clerks are seated by the auctioneer's platform. I saw fat bullocks sold one at a time, and I don't think more than a minute was occupied in selling each animal. And the auctioneer told me that he had sold two per minute when the bidding was brisk. I saw quite a number of cattle sold that we would call just medium-fat. Many of them, running about 1000, were sold at from £20 to £24.15s. and those weighing 1200, from £25 to £28.10s., of course their cwt. means 112 lbs. Some year-old steers, good thrifty fellows, were sold at £9.10s. each, eight of them weighing 4,100, six store steers weighing 54 cwt., sold for £19.10s. each. The Auction Co. charges farmers three pence per pound for selling. This pays auction fees, storage and all charges. The Auction Co. pay the auctioneer a yearly salary, and they collect all the fees that the auctioneer earns in conducting other sales in the country, during the other days of the week. In some years the auctioneer has sold at the mart, as much as £165,000 worth of live stock. This method of doing business seems to be very popular with the farmers, and the majority of them bring their live stock to be sold. The auction mart is beside the North British Railway Station, and I went out immediately after the sale was over, and found cars already loaded with cattle, that had been bought at the sale, so that the whole business is done quickly and expeditiously. The Auction Co. collect the money for the cattle sold, and pay over to farmers the price of their cattle, less the three pence deducted as fees. Fence posts and other commodities used on the farm are also sold by the Auction Co. They have a number of offices, which they rent to grain merchants, and others who do business with farmers; as practically all the farmers' business is transacted on the Auction Co's. premises. I might mention that a

number of pigs were sold, the day that I was there. These were not driven into the sale arena, but the auctioneer went around to the pens and sold the animals. It might be asked, does the auction business pay? The auctioneer told me that the company had paid a dividend of 7½ per cent. per annum for some years. Why cannot farmers in Canada, in the best agricultural districts co-operate and build auction marts, and sell their live stock in this way? The butchers and dealers like the system very much, because they are saved a great deal of time driving all over the country looking for stock, as the stock is taken out to be sold and they can get it for what it is worth. I might mention, that the sale arena and quite a large number of the cattle pens are roofed over, but a number of the pens are open.

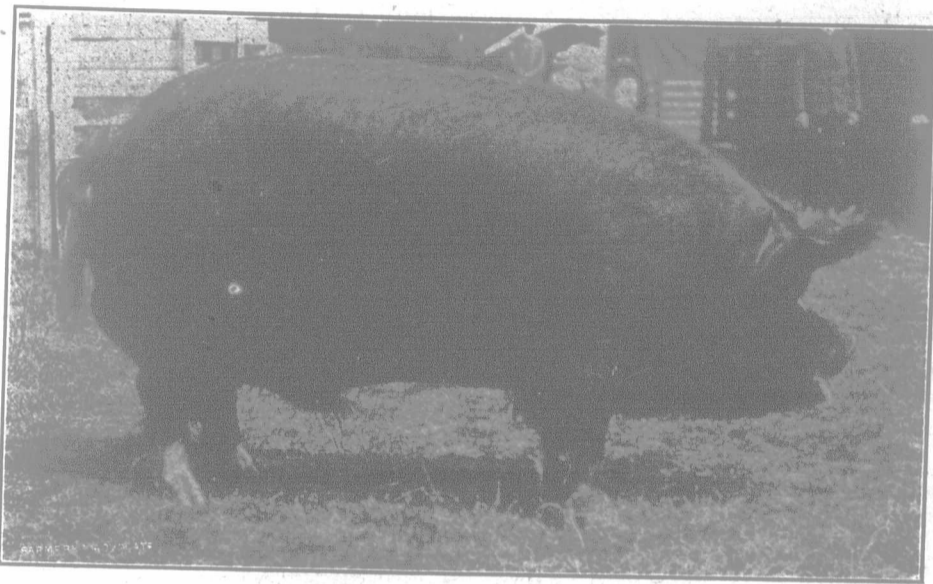
D. L.

and excessive immediate individual production are produced at the expense of constitution, which is only another word for vigor or vitality, each succeeding generation, no matter what the class or what the breed, must suffer, and the longer such a policy is carried on the weaker and more degenerated the race will become. At first the effects may be scarcely noticeable, but as this kind of breeding is further pursued the evils gradually become apparent. Persons who have made a careful study of breeding questions have come to the definite conclusion that in every animal there is a correlation of parts. Certain organs in the body are in very close and intimate relation with certain other organs, and a modification of one has a marked effect upon the other. The vital organs are, of course, the most important of the body, and if for any reason they are hampered, in development or over-worked to enhance some other portion of the body, constitution is weakened, and in time the family must dwindle unless different breeding methods are followed.

Purchasers of machinery care not who made the machine as long as it does the work. Farm animals are in a sense machines, manufacturing pork, mutton, beef, milk, or energy.

If care is to be taken in selecting an ordinary inanimate machine, how much more important is it that it should be exercised in selecting breeding stock. When the machine is worn out it goes to the scrap heap; when the breeding animal's race is run, thanks to the laws of heredity (like tends to produce like), all the characteristics subject to the laws of variation are carried on to the progeny, and so on generation after generation.

All great breeders have had ideals toward which they worked. Some ended in success, some in partial and others in complete failure. Concentrating all effort on any one point never proves successful in the end. We all like to see smooth animals, but extreme smoothness comes with fineness, and fineness is not always a mark of vigor. Some of the most noted breeding animals that ever lived have been anything but show animals. Champion of England, one of the greatest of Amos Cruickshank's breeding bulls, was so ungainly that he was only used as a last resource. Yet he was the making of his owner's herd. Why? Largely because he had great constitutional vigor, in short, prepotency. He was massive, strong boned, but rough, and his great



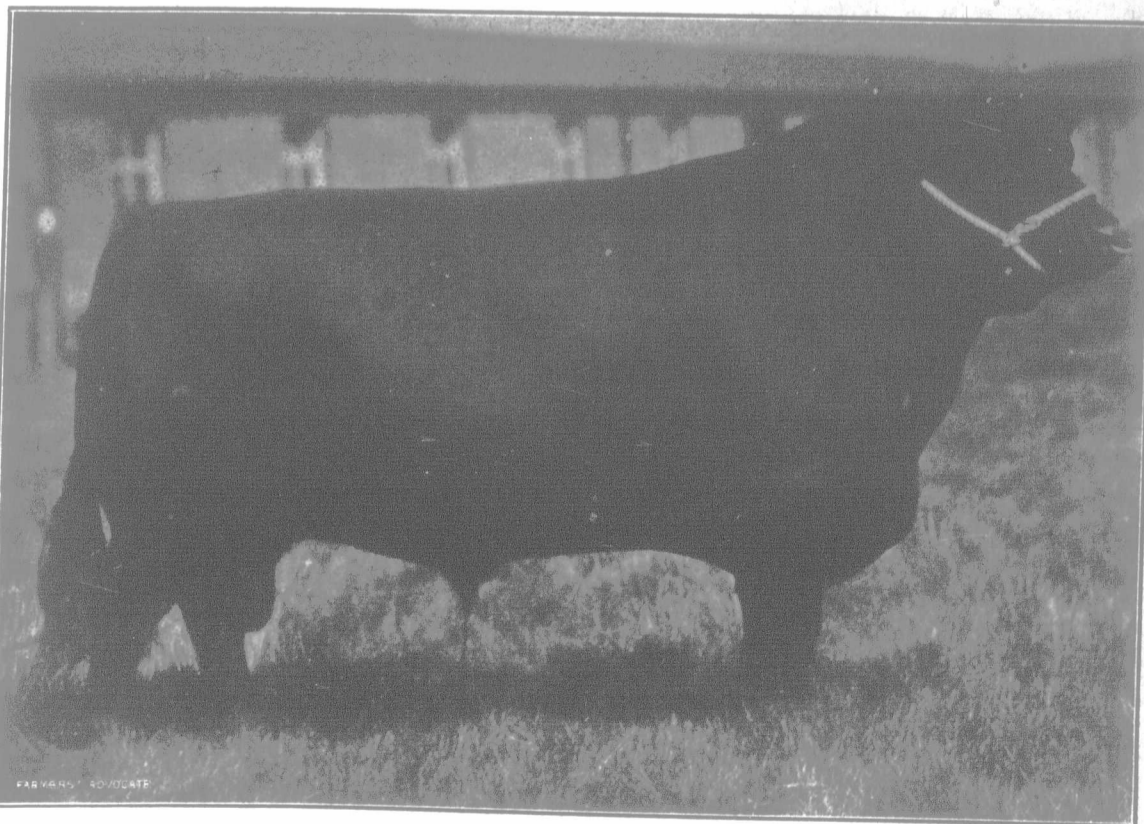
Oxford Viscount.

English Berkshire boar, winner of many first prizes.

Vigor and Vitality in Live Stock Husbandry.

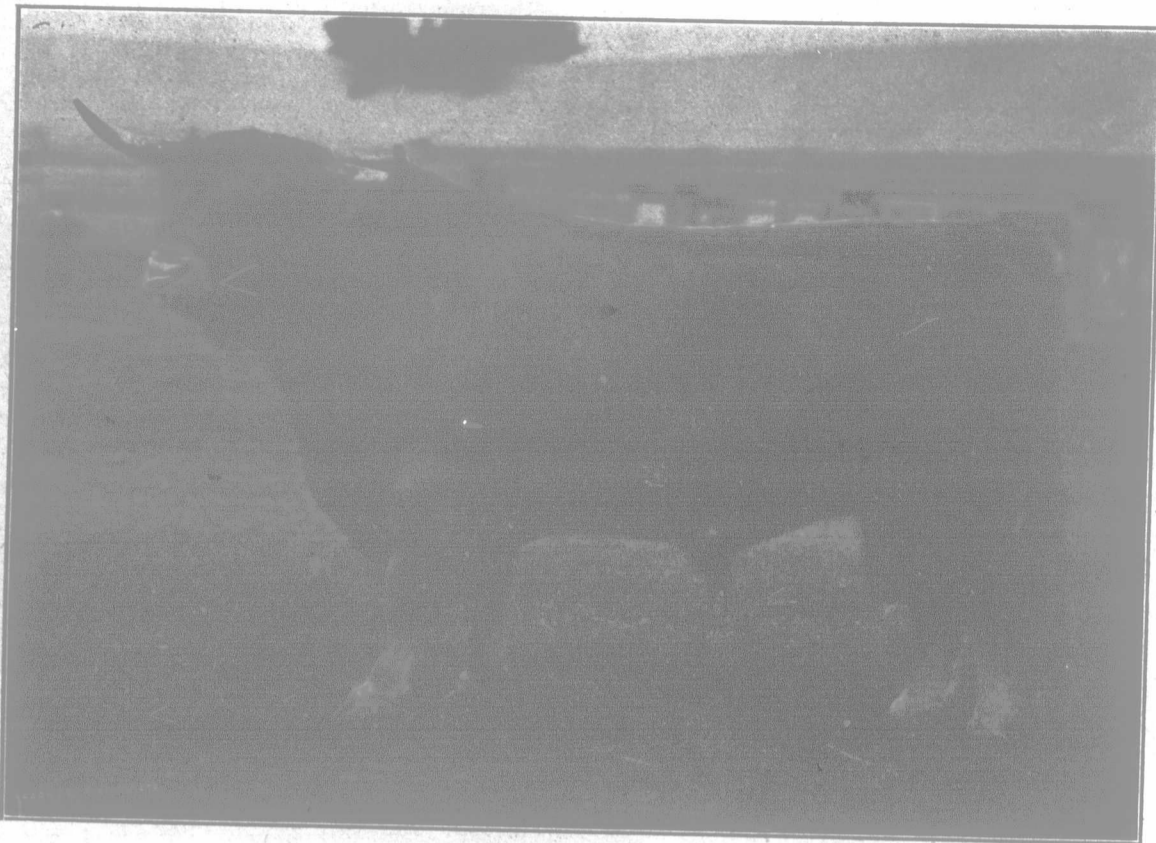
What is vigor? What is vitality? Vigor is sometimes defined as something essential to or supporting life and vitality as the capacity for maintaining life. Too often this capacity is looked upon in relation only to the present life of the individual animal and not as it should be in relation to all the progeny springing from that parent and all future blood lines emanating therefrom. Vitality or vigor, whichever you choose to call it, is hereditary in the strongest sense of the term. Pedigree peculiarities, color fads, type characteristics, economic production, too frequent periods of parturition, scanty feeding, over-feeding, and a host of other factors, are at work today, not always improving, but often materially injuring the vitality and vigor of the individual race, or breed as a whole.

Vitality is the next thing to life itself, and must not be sacrificed to meet immediate aims without weighing carefully the result in years to come. When fancy pedigrees, extremes of quality



Prince Blueblood of Ballindalloch.

Aberdeen-Angus bull. First in aged class and champion, Highland Show, 1912.



Highland Bull.

Champion at Highland Society's Show, 1912.

vigor proved a boon to his get, the result of his being crossed on finer females.

Animal's are bred for a purpose. The real basis of all market classifications of all farm live stock is utility. Breeders in the past have shown an unmistakable tendency toward the production of animals suited for market demands. What more could be expected? The beef animal which on the block showed the largest percentage of valuable cuts gives the most immediate profit. Butchers want as much meat and as little bone as possible. It seems to matter not what the dairy cow can claim in the way of a robust constitution so long as she fills the pails with high-testing milk. Immediate gains are most attractive to people generally, and naturally so. True, there often appears to be no imminent danger of severe losses from continued breeding upon lines to suit the market demands, but if persisted in indefinitely the result may not be so favorable. At the present there is noticed among feeding steers many which suit the butcher admirably, but which have not the rugged constitutions, the feeding capacity to give best returns for feed consumed. Some dairy cows in the country which have been literally "stuffed" to make and break records have proved unsatisfactory breeders. The excessive stimulation of one characteristic cannot, when carried beyond reason, have other than a detrimental affect upon the remainder of the body of the animal. Thus constitution, vigor or vitality suffers with a far-reaching result upon future generations.

Vigor is valuable in another way. The ravages of disease among animals are a great loss to stockmen. Disease-resistant animals are those having greatest constitutional vigor and constitutional vigor is largely hereditary. Therefore, vigorous stock means healthy stock and few losses.

Breeders have the matter in their own hands. Experienced men need not be told the indications of vigor and prepotency; they see them at a glance. Good judgment tells them that strength of body or "character" in the animal is from a breeding standpoint absolutely essential if the value of the race is to be enhanced. This year's gains and next year's gains must not be allowed to be the prime influence in breeding. Calculate carefully every phase of breeding and what each move means to future generations and the ultimate outcome of the breed and constitutional vigor or vitality will never be unduly sacrificed to any craze fad or demand.

I should like to express my appreciation of "The Farmer's Advocate." I know of no publication that covers its chosen field and does its work better than yours does in its field. It is an excellent publication. Peter McArthur is admirable—a most wholesome influence. More power to you, altogether.

(REV.) EDWARD B. HORNE.

Lambton Co., Ont.

With silo filling and threshing coming on right together, there is likely to be a September demand for more help than is available. How would it be to run a few harvest excursions down from the West?

Weaning the Pigs and Breeding the Sow.

The growth of pigs depends entirely during the first weeks of their life upon the mother's milk. This may be said of calves, but the milk given is more often skimmed than whole. The pig must have all that is in it. He is a "hog" from the start, and his weaning is not a partial weaning like that of the calf at the time it is taken from whole milk to skim milk, but when his dam's milk supply is cut off he must depend upon other food for his living and growth. The change is, to say the least, quite violent, and for best results it is necessary to provide some food closely approximating the sow's milk. Skim milk from the dairy is the best available substitute, and where this is plentiful and the pigs have become accustomed to eating from the trough, they will do very well weaned at six weeks of age. Where skim milk is not to be had, it is often better to leave the litter on the sow until they have reached the age of eight weeks. Some breeders of show stock allow the pigs to remain with the sow ten or twelve weeks, but every sow in a herd kept for pork production should produce two litters yearly, and to do this eight weeks is long enough to leave the pigs with their dams. Skim milk and shorts or middlings, the latter soaked a few hours or scalded, make about as good feed for the newly weaned pigs as can be obtained. Feed the pigs frequently following weaning and increase the feed as time goes on.

Many sows will breed two or three days after farrowing, but this is not good practice, as it is too great a strain upon the system to be suckling one litter and nourishing another. It is better to leave her until after the pigs are weaned. After weaning the litter, feed her on dry oats and if her udder gets very full turn her in with the pigs once daily for a few days. If the

sow is in good condition she will show oestrus in from three to seven days after the pigs are weaned, and this is a good time to breed her. If she is run down in condition and not thriving, she may not show the period of oestrus, and if she did in such cases, it is often well to defer breeding until she has recuperated. To promote oestrus many have had good results by feeding on dry peas or some other strong grain feed. Usually as soon as the animal begins to gain in flesh these periods become regular.

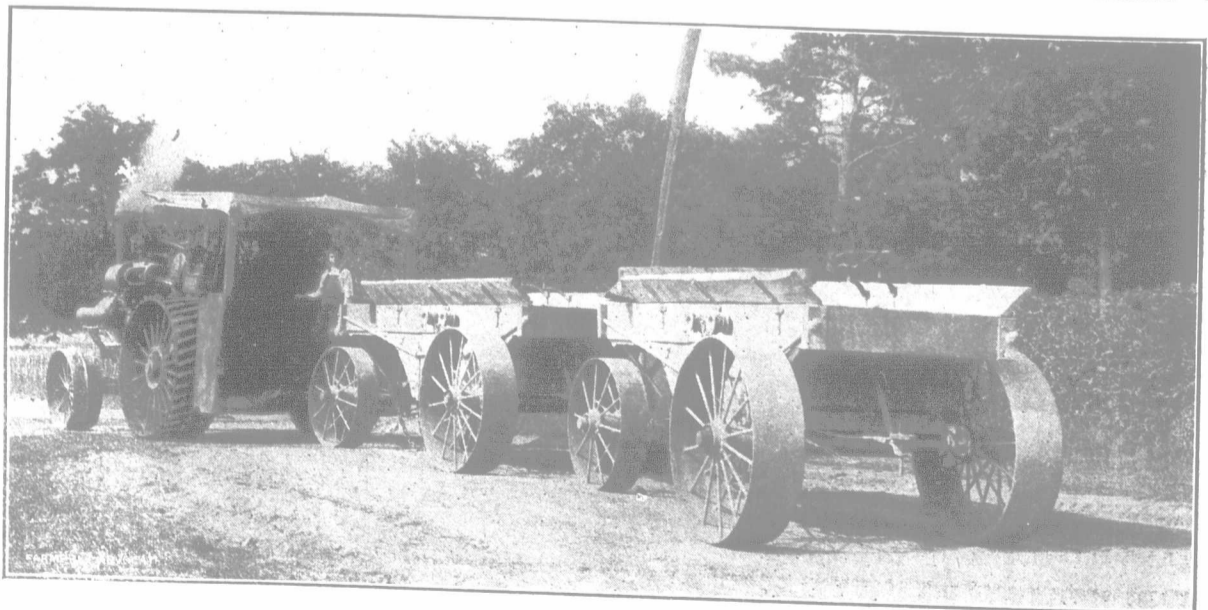
Pigsty vs. Pasture.

"The greatest stumbling block in the pathway of the average man who contemplates the possibilities of pork production is the old-fashioned pigsty," writes Dr. Geo. M. Twitchell, of Maine, in the Massachusetts Crop Report. "Habit is so exacting that its full force can hardly be imagined. The pig-pen must go before pork making can become either a lucrative or even an attractive industry. It is one of the relics of olden times to which New England clings tenaciously. Pork may easily be made the cleanest, sweetest and most healthful of all the meat products. Naturally the hog is one of the neatest of animals, so that in judging the industry it must be from the viewpoint of the man who conforms to the demands and conditions of to-day.

"Economic pork production hinges upon the utilization of forage crops, the pasturing of the herd and the cutting out of all purchased grain. The problem is, can this be made effective in actual practice as in the west? Here is the crux of the whole situation. Fortunately, we have the experience of a number sufficient to maintain the claim.

"While good results will follow the pasturing of a herd on an acre sown to rape, clover and barley, at the rate of 3 pounds of dwarf Essex rape, 7 pounds of red clover and one bushel of barley, I am convinced that the plan outlined by Commissioner Huson, of New York, and practiced yearly by him, is more economical and will insure better results.

"Mr. Huson divides this acre into three or four paddocks, with movable hurdles thirty inches high. In September he sows rye in one and turns onto that in early spring, where the shoats thrive wonderfully. By the time it is gone over, but not eaten too close, the paddock of rape, sown in early spring, as soon as the ground is warm, is ready. Then follows one of clover and one of oats and peas. By the time these have been fairly eaten down the rye will have come again and matured a fair crop of grain, every kernel of which will be utilized. Naturally, the process of change from one paddock to another will be modified by the conditions, the best results obtaining when excessive growth is checked by changing from one to another and each one watched to see that it is not eaten too close. Of course the amount of ground demanded will be determined by the number of hogs kept, but this process of supplying the most healthful and cheapest food possible is so simple that it must commend itself to every would-be pork maker. March pigs grown in this way should be ready for market in October, requiring only enough grain to be carried along steadily, and finally finished in short order for the early market. For this finishing, corn and pumpkins, grown alongside the paddocks, constitute the best and most economical food to be obtained, reducing cost of production and labor of feeding to the lowest dollar, while insuring a quality of product impossible to mature in close pens or with swill-fed animals. There is good evidence in support of the claim that one has but to establish himself in



Hauling Gravel by Locomotive Traction on Oxford County Roads.

this industry, by some such plan as here outlined, freeing his stock entirely from the old-time methods of pigsty or barn-cellar growing, and advertising a healthy product made only on forage crops, in open pastures with home-grown grain, in order to insure a permanent market at advanced prices. The absolute purity and cleanliness of the product, and freedom from all possible taint from impure surroundings and stale swill feed, will attract buyers. It will be understood here as everywhere that an abundance of fresh water must be available at all times, and if possible it is best to equip a field in close proximity to a brook or within easy access of a water supply. In this way the labor item during the growing season is practically eliminated."

THE FARM.

The Use of Lime.

The results of co-operative alfalfa tests indicate that on many Iowa soils the use of lime on alfalfa fields is to be recommended, as its application has in many cases been very beneficial. At any rate no harm can come from an application of from 1,000 to 2,500 pounds of lime per acre and especially if this be in the form of finely ground limestone or limestone screenings, which is decidedly preferable to quick lime.

In a number of co-operative tests the applica-

tion of lime was absolutely essential before alfalfa could be grown successfully, indicating that the soil was strongly acid. In other cases, while a satisfactory growth was secured without the use of lime, its use gave a more vigorous growth and better color.

Alfalfa requires for its best growth a large amount of calcium, which is the active principle of lime. Also, alfalfa cannot grow and thrive in soils which are at all acid, owing to the fact that the nitrogen-gathering bacteria which live upon its roots, and upon which in turn the alfalfa plant depends most largely for its supply of nitrogen, cannot live, thrive and multiply in an acid soil.

SILO FILLING — SOME FIGURES FROM WELDWOOD.

On the modern dairy farms of Ontario and Quebec silo-filling is the problem of the fall. This year it will be complicated by grain threshing, with which in many districts it will coincide. Hard work it is, but pleasant, as the rank heavily-eared stalks—perhaps they won't be so heavy this year—are hauled load after load to the ensilage cutter, chopped to inch or three-quarter inch lengths and blown into the cavernous mows of thirty-five or forty-foot silos whose capacity to receive and preserve this cheapest of all good cattle foods is fairly incredible to one who has not seen silos filled. Corn, we have just remarked, is our cheapest good cattle food, and the silo is our most economical as well as our best means of storage. It is most economical in respect both of building and labor. True, it makes a busy September, but once the silo is filled, one has his corn-cutting, shocking, husking, grinding, stalk-cutting and mowing away all completed for the year, so far at least as the ensiled acreage is concerned. Much is accomplished in a short space of time, and the feed is ready to throw out and place before the cattle with a minimum of labor. A great wealth of satisfaction comes out of the silo all winter long. But let us to the practical.

WHEN TO FILL.

Accumulating experience demonstrates the folly of worrying over-much about freezing. If cut and ensiled soon enough to prevent much waste of leaves, corn will be little the worse for an ordinary white frost. If it gets too dry water may be added. Comparative maturity is very desirable. For best results in feeding either beef or dairy cattle, but especially the former, the corn should be cut when the grain reaches the glazing or dent stage, when the husks and lower leaves have begun to turn brown.

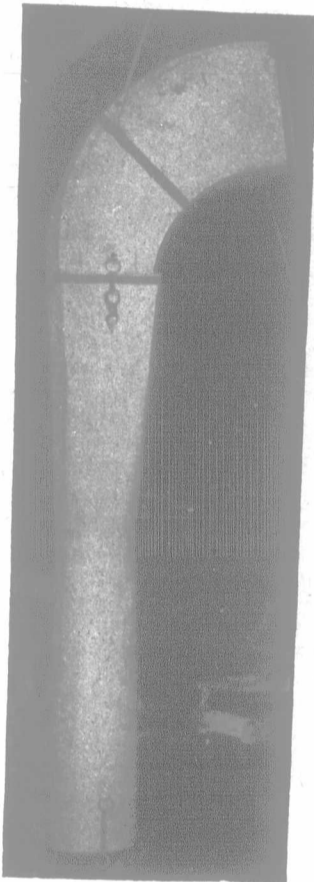
CUTTING.

The corn may be cut by hand with hoe or sickle or by horse power with a corn binder or sled. Hand cutting is better adapted to hill corn, the binder or sled to drills. Where help is available at two dollars a day or less there is much in favor of cutting with heavy-bladed short-handled hoes. With one of these a good man can cut two acres of any straight-standing hill corn in a ten-hour day and lay it in neat loose bunches. Last year at Weldwood our corn had been badly beaten down by an August storm, yet sixteen acres were cut in about 85 hours at a cost of very little over a dollar an acre. And after the field was cleared its close stubble was the admiration of all who saw it. It is impossible to cut quite so close with the sickle or corn binder, though on smooth soil the latter can get down fairly well. The binder has the great advantage of leaving the corn bound and therefore in condition to handle quickly and feed freely through the mouth of the cutting box. At least twenty-five per cent. more bound than unbound corn can be run through the box in a day, given the men and teams to put it there. This is particularly true if the stalks be crooked. Whether the advantage here compensates for the greater cost per acre of cutting, the undesirability of having twine in the silage and the loss of stalk left on the field, each man must decide for himself. Where help to cut by hand cannot be had at all, the question, of course, ceases to be debatable. While it is desirable to cut within two or three days of filling this is not necessary. Some of the corn may be cut a week or two ahead if need be and mixed in filling with the fresh-cut corn, making excellent silage. This is particularly true of what goes into the bottom of the silo, though last year we refilled our silo with shocked and ripe green corn load about and had good results. Sand on the corn caused by rain while lying on the ground is undesirable, but a little clay will never be noticed when the silage comes out.

PREPARATIONS FOR FILLING.

Plenty of fuel and water should be provided in good time. If water can be run directly to the

engine by means of hose, pipes or wooden troughs it will often be economy to supply it that way. Before commencing to fill, arrange if possible by means of a spray pump or otherwise to wet the walls inside, especially if the silo is cement. Otherwise juice may be absorbed from the



Pipe for Distributing Cut Corn in Silo.

corn by the cement wall drying it out and causing a deterioration of the outer layer.

FILLING DAY—MEN AND TEAMS NEEDED.

By exchange of labor or by hiring one must arrange for an ample gang. It is poor economy

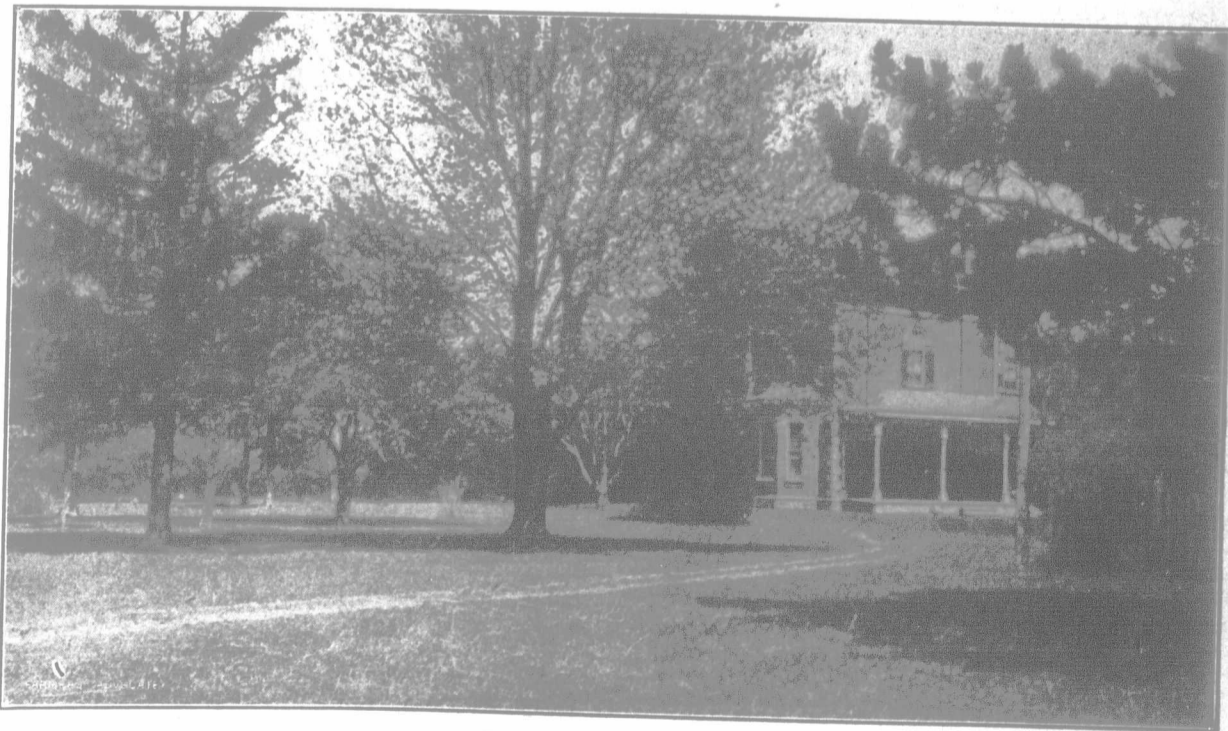
to keep an outfit running below capacity at a dollar an hour. With an average haul of say three-eighths or even half a mile four good teams will usually be sufficient for an ordinary outfit. The gang in addition to engineer and feeder should include about eleven or twelve men, distributed as follows: Four teamsters, one helping the teamsters unload, four or five men in the field loading and two in the silo. It is well for the proprietor to keep himself free to over-see things and lend a hand wherever it may be needed most. Towards the last he may dispose himself best as a third man in the silo. The men in the field may cut with hoes when for any reason operations are arrested. While changing men round judiciously so as to ease those in hard places, it is important to preserve system and keep a sharp oversight of everything. Tact and example are usually all that is called for, but sometimes drive is necessary as well. Low-wheeled wagons or trucks make loading easy. Where the corn is laid horizontally on the rack the ends should be filled first and centre last. A year ago a correspondent suggested standing tied sheaves upright in the rack, claiming it enabled him to draw big loads and also to unload easily. The idea looks good.

FAST OR SLOW FILLING.

Questions have been raised by scientists whether the best silage is made by filling fast or slow. As a rule economy demands rapid filling and A1 silage can be made that way. We have never seen silage better than we had last year and it was made on the principle of getting the corn packed into the silo as tightly and rapidly as possible. The last foot of it is being fed out as we write and is in prime condition, a little gummy with accumulated juice, but fragrant, appetizing and nutritious, without any trace of that swilly condition sometimes found in the bottom of deep silos. Perhaps the drain may have had something to do with this.

DISTRIBUTING AND TRAMPING THE CORN.

One of the important points of ensilage practice is the distributing and tramping of the cut corn. In this connection we might mention the matter of length. We prefer three-quarters of an inch, though an inch is not bad. The finer the cut the tighter the pack, but of course the slower the filling. There should never be fewer than two men in the silo and unless some distributing device is used there should be three. To distri-



Sprucedale Farm.

Home of A. Watson & Sons, on Talbot Road, five miles west of St. Thomas, Ont.



An Australian Farmer's Wool Going to Railway Station.

bute the corn uniformly, keeping leaves, stalks and ears mixed in a uniform-settling mass a long sack or jointed pipe is necessary. No device which does not reach close down to the bottom can prevent the leaves and lighter parts fluttering to one side. The ideal thing for the purpose is the pipe illustrated and described in our issue of May 2nd. For the information of new readers and old ones who may have mislaid their copies, we produce it again:

The hood, which fits over the mouth of blower pipe, has an opening fourteen inches square, and is reinforced with two bands of iron, each provided with a pair of ears placed near the upper corners. Through these pass the ropes by which the pipe is suspended. The second length tapers from square to a round shape eight inches in diameter, and is five feet long, as is every length below that. The regular lengths of pipe are about nine inches in diameter at the upper end, and eight inches at the lower end, thus giving free play. The various lengths of pipe are coupled with rings, chains and snaps, as indicated. After the two upper turns, they are placed on the quarter turn, so as to make it more easy to bend the pipe in any direction desired. Of course, the bottom end of each length fits loosely into the top of the length below it. The hood is constructed with an extra-heavy thickness of galvanized iron, most of it being No. 24, while the back was still stronger (No. 22). The round sections of the pipe were constructed of No. 26.

To erect this pipe, attach ropes to the hood and draw up to top of silo, hooking on length after length. The bottom one may hang about ten feet clear of the floor, and may be pulled around for a time by means of a rope, until the silo has been filled a few feet, after which it may be conveniently led around by a man holding it with the opening shoulder-high, or lower.

By way of suggesting improvements, based upon experience, we would propose having the mouth only 12 inches square. Be sure to secure extra heavy metal for the hood, particularly the back of it, and do not forget to have the chains of successive lengths placed on the quarter turn. The cost of this pipe was fourteen dollars.

TRAMP! TRAMP!! TRAMP!!!

Excellent though the distributing pipe is, it will be found a mistake to make it take the place of a second man. At least one good active trumper (not tramp) is needed to keep walking over the corn and especially around the outside pressing down with his foot next the wall. Some advise the use of a cement rammer, but we doubt the advantage of it over tramping. It is generally advised to keep the outside higher than the centre. The writer of this article is frankly skeptical, having been always inclined to the opposite opinion, arguing that a convex layer on settling will press outward against the wall whereas a concave layer would settle away from it, leaving an air space between the silage and the wall, especially near the top of the silo. However this

may be, there are no two opinions about the desirability of tramping the edges well.

As the doors are put in place it is well to fit them with tar paper, covering the inner space smoothly, the edges of the paper projecting outwardly. Chinks or holes in the walls may be filled with soft clay as one comes to them.

PROTECTING THE TOP—WHEN TO COMMENCE FEEDING.

When the silo is filled the corn is ready to feed. Unlimited quantities may be allowed the cattle for the first week and by care in removing the surface layer very little waste will be entailed—none at all if one can use it fast enough. Last year we finished filling on October 7th. Feeding commenced at once and continued till the last of May, recommenced in July and will finally conclude with about the date of this issue. During this period of 280 days or so this 150-ton silo has supplied an average of about 25 head of stock, mostly cows.

Even though one does not need the feed badly it is often well to feed a few feet off the top and then leave the silo, as the spoiled layer will be much thinner than when the loose top layer is left exposed. When it is not desired to feed at all for some weeks a good plan is to pull the ears off the last few loads and then twenty or thirty barrels of water may be put on. It is claimed this will help to seal the surface.

Whether to tramp or not after filling is a question. Some claim it is better not to tramp then, as tramping would disturb the jelly-like

layer which gradually forms. We are not sure whether it is best or not. Our plan is to feed immediately. Sowing oats over the top has been often recommended, but the economy of it remains to be demonstrated. Probably it is better to save the oats.

COST OF SILO FILLING.

The cost of silo filling has been variously estimated at from forty cents to one dollar per ton of capacity, depending upon weather and other factors, also whether a second set-up is made to refill. We refilled last year and owing to bad weather, plus accident to the outfit in the meantime, we had to wait two weeks for the second turn. It added materially to the total cost. We do not expect to refill in future, but shall merely blow the roof full and spread that around as the silage settles.

At the Iowa Experiment Station the cost of silo filling has been 60 to 75 cents per ton. Prof. W. J. Kennedy, formerly of that station, in an article published in these columns last year, also gave the figures of a large farmer in that State, who had his own corn binder, cutting box and gasoline engine, and estimated the cost at \$54.60 per day, putting up 85 to 90 tons, at an average cost of 60 to 65 cents per ton.

Perhaps we had better conclude this article with a few figures from Weldwood. Cutting 15 1-3 acres by hand and putting the crop of 150 tons or better in the silo required:

367½ hours of men's labor costing	\$ 66.21
201 hours of horses' labor costing	22.37
23 hours for outfit and 2 attendants @	
\$1.00 per hr.	23.00

\$111.58

This is \$7.25 per acre for cutting and ensiling or 74 cents per ton of estimated capacity.

The total labor cost of growing and storing 150 tons from 15 1-3 acres was \$1.65 per ton.

The corn was Longfellow, Bailey, Whitecap Dent and Leaming varieties, planted 42 inches x 44 inches, averaging three or four stalks to the hill. It was heavily eared and well matured. The cost, though not excessive, was materially increased by the corn being lodged and crooked, by the extra expense of refilling, entailing some shocking, and by bad weather at the second filling. Withal it made excellent and economical feed.

Some Facts and Figures about Australia.

To the vast majority of dwellers in this sister Dominion of the North, the great island continent of Australia is, more or less, an unknown quantity. So busy are we with our own pursuits and national affairs that we have little time to pause and think of the progress and development of the lands of our kinsmen's choice. No one attempts to deny the congratulatory position Canada occupies among nations to-day, but let her realize more generally that there are other countries which, although separated by thousands of miles of ocean, are by no means unworthy rivals and completely out of the reckoning.

The Commonwealth of Australia, composed of six States, is the fifth of the earth's continents. Her area is slightly larger than that of the United States of America, whereas her population, though steadily and satisfactorily increasing, shows but an average density of 1.5 persons to the square mile, the most sparsely-populated of



State School Bee and Garden, Balingup.



Cattle at Tank, Newmarracarrn.

all civilized countries in the world, with the Dominion of Canada possessing figures of 1.81 per square mile, a close second. When it is considered that Great Britain owns to figures representing 613 persons to the square mile, the paucity of inhabitants in both the Dominion of Canada and the Commonwealth of Australia may be appreciated. A feature, however, upon which Australia has cause for congratulation is that 95.06 per cent. of her population are either Australian born or British.

In any other British country than Canada, the mind would reel at the immensity of the distances of which Australians speak so glibly. An area of three million square miles presents a very fair indication of that which is to follow when the great southern Commonwealth is under discussion. Her climate, one of the finest in the world, has no place for the tropical, the temperate and subtropical being her two extremes. Only in two of her large cities, during the history of Australia, has the temperature dropped below freezing point, and as 27.7 and 27.0 degrees Fahrenheit are absolute record figures in Hobart and Victoria, respectively, it will be conceded that no hardships from cold confront the dwellers in the island continent. That her climate is one of the best, brightest and most healthful in the world, is amply borne out by her death-rate, which, with the exception of New Zealand, is the lowest of all countries. The figures per thousand of population, New Zealand 9.2, Australia 10.2, England & Wales 14.7, and Russia 30.0, speak far more eloquently and convincingly than words, and will support the contention advanced by the Commonwealth that, for general salubrity of climate, that of Australia leaves little to be desired.

By reason of her geographical position and the absence of striking physical features, Australia is far less subject to extremes of weather than are regions of similar area in other parts of the globe; and, latitude for latitude, Australia is far more temperate. Thus, in parts of Europe, Asia, and North America, winter blizzards alternate with summer heat waves. In Asiatic Siberia, the extreme range of shade temperatures in summer and winter is no less than 171 degrees, and in North America 153 degrees, or about double the Australian range, which is only about 81 degrees. Thus it is that, in the great farming districts of Australia it is hardly ever necessary to house live stock, while people can live comfortably in cheaply-constructed houses which would be considered almost uninhabitable in countries where the climate is rigorous.

From North to South, and from East to West, the Australian continent extends 2,000 and 2,400 miles, respectively. Her coast line, exclusive of minor indentation, measures 12,210 miles. As regards the general appearance of her land surface, Australia may be described as a plateau, fringed by a low-lying, well-watered coast. In the early days of the settlement of Australia, it was thought that the interior of the continent consisted chiefly of desert plains; as settlement progressed, however, it was discovered that this area contained exclusive tracts of excellent country.

Although Australia is pre-eminently a pastoral country, the value of the returns from the flocks and herds far exceeding that from any other industry, nevertheless figures show the agricultural industry to be of considerable importance, and, judging by the great advance in recent years, bids fair to occupy a still more distinguished place as a factor in Australian wealth. In the year 1890 Australia's production of wheat was 27,118,259 bushels, a steady advance of nearly 100 per cent. in a decade, despite the checks to progress due to the vagaries of the season. The industry is now approaching the 100,000,000 mark.

In Australia the drouths will probably ever remain, but, with reasonable care and the proper conservation of water and of fodder, they will be looked upon in future days as by no means evils without redeeming features, but rather as one of the provisions by which nature enables the soil to re-establish those properties which have been exhausted during a succession of bountiful seasons. The beneficial effect of resting the soil in times of drouth is shown by the extraordinarily rapid recovery, by the increased fertility, and by the abundance of the harvests in the seasons immediately following the drouths. Next to wheat, the hay crop is the most important in the Commonwealth, over 20 per cent. of the cultivated area being under the crop. In other countries, the hay is principally made of other grasses, but here it is found very profitable to use wheat and oats for hay-making, yield per acre being from two to four tons. Barley is also used to a less extent, and in New South Wales and Queensland excellent hay is made from lucerne. Root and tuber crops of all sorts thrive excellently in the Commonwealth, but potatoes and onions are the most important of this class grown. The grape-vine flourishes in all the States on the mainland of Australia, but vine-growing is carried on most extensively in S. Australia and Victoria. Excellent raisins and currants are also produced in the other States, but until recently no statistics were collected. Sugar-cane is grown in New South Wales and Queensland, and minor crops, such as tobacco, hops, grass seed, millet, coffee, cotton, arrowroot, in the Commonwealth generally. Dates and rice also flourish, and olives of excellent quality are grown in South Australia. In Papua, transferred to the Commonwealth Sept. 1st, 1906, there are considerable areas of rich land, which may be acquired by settlers on easy terms. The most reliable and lucrative plantation industries are para rubber and cocoanuts, but all sorts of tropical fruits, fibres and spices, in addition to many valuable drug-yielding plants, have been proved to thrive to perfection.

The briefest reference only can be made to the great variety of fruits which the Commonwealth is capable of producing. For example, in Queensland, excellent pineapples, bananas, mangoes, cus-

tard apples, granadillas, and other tropical fruit can be grown. In Tasmania, the Island State, separated from the mainland by Bass Straits, all English cereals, fruits and flowers will grow, and many that in England are reared only in greenhouses. Oranges and lemons are also grown, equal, if not superior, to anything that reach Covent Garden Market; while grapes, peaches, apricots and nectarines are produced almost anywhere in Australia in the open.

The fact that Australian hens have made remarkable records in egg-laying competitions serves to indicate the suitability of climatic and other conditions for poultry-raising, and in wheat districts many farmers make a considerable sum annually by breeding turkeys. The poults rarely die off, as they do in districts where, during their early stages of life there are heavy dews. In every State there are good cold-storage depots to which eggs may be sent when local markets are glutted. The charges in such cases are purely nominal. The system of egg-circles has been inaugurated in S. Australia, and large quantities of eggs are forwarded in refrigerated vessels to the British markets, where they realize good prices.

Bee-farming is a successful industry in New South Wales and South Australia. The indigenous flora is rich in nectar, and the quantities of honey stored in single hives are astonishingly large, sometimes reaching 400 pounds.

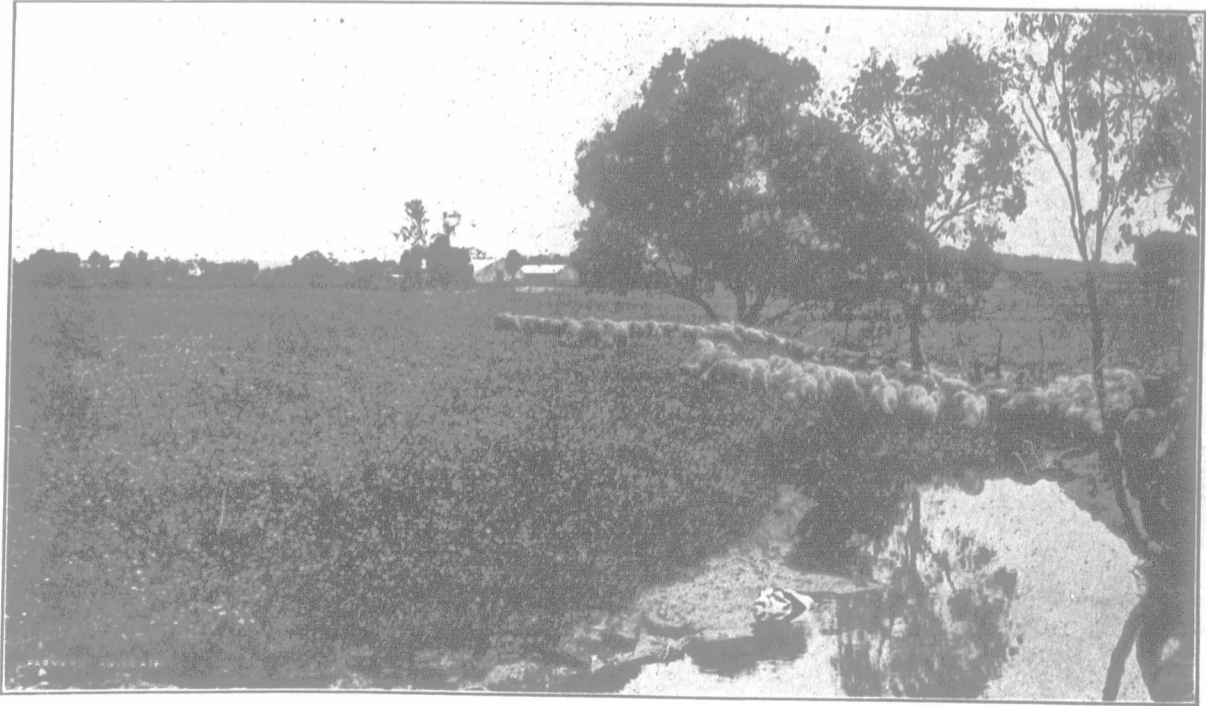
The Dependency of Papua comprises 90,540 square miles of the southern section of New Guinea, and lies wholly within the tropics, and, to men possessed of moderate capital, offers unique opportunities for the profitable pursuit of tropical agriculture. The territory possesses large areas of some of the richest agricultural lands in the tropics, easily accessible by good harbors and navigable rivers.

During 1909, slightly over 29 per cent. of the total yield from all industries was contributed by the pastoral industry, which in round figures represented \$250,000,000.

It is perhaps needless to remark that Australia, in the size of her sheep flocks and general value of her production from the sheep-breeding industry, far exceeds any other country in the world. The sheep flocks of Australia exceed 90 millions, the only other countries which approach these figures being the Argentine Republic, with 67 millions, and Russia, with 61 millions.

Maize is now grown extensively in all the States. Under natural conditions, from 60 to 80 bushels per acre are often produced, but, under irrigation, and in certain districts favored with heavy summer rains, 120 bushels per acre are commonly harvested. The bulk of the maize grain harvested in Australia is used for horse feed, but, with the growth of dairying, this crop, which can be depended upon to produce 20 tons of nutritious green fodder per acre, is being largely availed of.

Large areas in the interior of the continent, which, be it remembered, is by no means a desert, as was once popularly supposed, have been proved suitable for the breeding of cattle and horses. Indeed, the possibilities of this portion of Australia have, so far, remained almost undeveloped. Even when fed on the natural herbage of the country, the Australian horse has been found to possess a remarkable degree of speed and endurance, and these good qualities have been greatly enhanced by careful breeding. Little need be said in regard to the capacity of the Commonwealth for the production of high-class racing stock, in view of the world-wide renown gained



Farm Scene, Northam, Western Australia.

by many an Australian race-horse. Pig-breeding is carried on principally in conjunction with dairying, and for reasons best known to the farmer, does not receive that attention which is so generously conceded to it in Canada. The numbers fluctuate considerably, and for the last year for which figures are available numbered 765,137, as compared with well over a million in 1905.

Realizing the importance the pastoral and agricultural industries are destined to play in the development and prosperity of the Commonwealth, and the enormous extent of land still available for settlement, the Australian Government has taken the matter in hand in a broad and intelligent manner.

In each State there is an alert Department of Agriculture, in which a staff of competent and practical demonstrators is engaged to assist farmers and stock-breeders to cope with any matters whatsoever that affect their interests. In every possible direction that a farmer may require advice concerning his soil, seed, manure, as well as the marketing of his produce, ready and competent advice is placed at his disposal free of charge. There are also large numbers of farms throughout the continent, conducted by the Government, to ascertain facts for the guidance of the district in which they are situated, and these farms are open to the farmers at all times. Excursions are arranged at frequent intervals on the Government railways at extremely low fares, in order that farmers at a distance may come and see for themselves the results following the use of new kinds of machinery, or of new methods of growing or handling crops. In practically every country town of any importance in the farming belt there is an agricultural society, hundreds of which receive substantial subsidies from their respective State Governments, with a view to encourage educative displays of the best stock, products and machinery. At the large shows, a daily attendance of 70,000 people is not unusual, which will afford some idea of the importance attached in Australia to anything likely to advance the interests of the farmer.

For the training of the young men, there are four agricultural colleges and thirty-two experimental farms, occupying a total area of nearly 50,000 acres, on which crops of every kind, and live stock of every description—from dairy stock to ostriches—are grown and cared for by those undergoing training on scientific and practical farming.

In addition to the foregoing, there are well-established Farmers' and Settlers' Associations, all of which are powerful organizations, which have a considerable voice in framing land laws and other matters of importance to farmers and others.

For thirty years past, the dairying industry has been an ever-increasing one in Australia, while within the last few years the strides it has made have been little short of phenomenal. This rapid development is due to a variety of causes, the principal of which being the fact that in Australia the climatic conditions do not necessitate the winter housing of cattle, save in a few instances. The dairy farmer is therefore not under the expense of providing stall accommodation for his herd during the winter, while stall-feeding is almost unknown. With the introduction of the cream separator and the spread of the factory system, the dairying industry has advanced by leaps and bounds, so that at the present time large areas once given up to general agriculture have been devoted almost entirely to dairying. When Captain Phillip established the settlement of Sydney, N. S. W., in 1788, the live stock consisted of one bull, four cows, one calf and seven pigs. At the end of 1909, the dairy herds of the Commonwealth numbered 1,406,174, the total number of all cattle being 11,040,391. During this latter year, Australia produced nearly one hundred and sixty million pounds of butter, which found a ready sale in the London markets, as well as in other countries.

The chief branch of Australia's dairying industry is, of course, confined to butter. Cheese and preserved milk are enumerated, but cannot be deemed of considerable importance, the former being an important feature with New Zealanders, who manufactured in the last year for which statistics are available, 272,212 cwt., valued at upwards of four million dollars.

The best index to the prosperity of Australia is that about one person in every three of the whole population owns a banking account. Taxation with our remote kinsmen is extremely light, in comparison with other countries, and, in the case of farmers, practically insignificant, there being no tithes, no poor rates, no education rates, and no King's tax.

The mileage of the Commonwealth railways is 17,432. The longest journey which can be undertaken is from Longreach, in Queensland, to Oodanatta, in South Australia, a total distance of 2,303 miles. Two transcontinental lines are under consideration. Working plans and specifications are being prepared, in order that construction may be commenced as soon as Parli-

mentary sanction has been obtained. The line east and west will connect Kalgoorlie in West Australia, with Port Augusta in South Australia; whereas the line extending from north to south will connect Oodanatta with Pine Creek in the far north, 100 miles from the coast. Up to the present time, seven hundred million dollars have been expended on State-owned railways in Australia, and the policy is to keep the freights low, so as to simply defray working expenses and pay about 3½ per cent. interest on the capital invested. Thus, as in the sister Dominion of New Zealand, the railways are not run primarily for profit.

Relative to population, Australia occupies a



A Beauty Spot at Blair, Waterloo Co., Ont. Showing mill dam and the old-style water-wheel tower and cable.

Photo submitted by W. W. Schantz.

high position amongst the trading countries of the world. Her trade imports and exports per inhabitant, according to the last available statistics, places her fourth among nations; while, if allowance be made for the transit trade of Belgium and Switzerland, she would doubtless occupy a still higher position. It is again interesting to note that, in total trade per head of population, New Zealand stands the highest of any country in the world, with an average of \$172.56; Australia fourth, with \$123.90; Canada sixth, with \$110; Great Britain, \$97.92; Germany thirteenth, with \$54.51; and United States fourteenth, with \$34.40. The volume of its external trade is not necessarily an unequivocal test of a country's prosperity, as the total may be obviously affected by various factors; nevertheless, an impartial survey of the general characteristics of the Commonwealth's trade will show that there has been rapid and substantial advancement.

A gratifying feature in connection with Australian trade is the extensive dealings she has with her own kinsmen in all parts of the world. Thus we find that she buys some 75 per cent. of her imports from the United Kingdom and the British possessions, and since the year 1891 Canada's contribution to Australian requirements has increased by upwards of 500 per cent. These latter imports include such commodities as timber, fish, agricultural implements and machinery, paper, bicycles, etc. The city of Sydney, the capital of New South Wales, situated on the incomparable Sydney Harbor, known throughout the length and breadth of the world for its peerless beauty, has a population of 600,000, and ranks as the sixth port in the British Empire, her aggregate entered tonnage being upwards of six millions for the year 1909. Thus, the shipping business of the port of Sydney exceeds that of any port outside the United Kingdom; whereas, with Great Britain, it is exceeded only by London, Liverpool, Tyne Ports, Cardiff, and Southampton.

Little more than the fringe of Australia's productive area has yet been touched. Of her 1,903,731,840 acres, only about one-twentieth have been

alienated absolutely. The settler may purchase land by the payment of small, half-yearly instalments upon liberal terms, viz.: The settler must reside upon his holding and fulfil improvement conditions of the lightest nature—conditions inserted in order to guarantee that the occupier will become of benefit to the community, by making a reasonable effort to make his holding producing. The maximum area which a settler may select in this manner varies from 200 to 2,560 acres, according to the situation and quality of the land. The purchase price ranges from two and a half dollars upwards, and the payment may be extended over a period of from twenty to forty years, the annual payment ranging from 15 cents per acre upwards. Under the Closer Settlements Act and The Small Holdings Act, farm laborers and working men may acquire freehold property near the centers of work, and money is advanced them by the State Governments on easy terms to assist them in building homes. For the purpose of assisting settlers in erecting buildings and carrying on improvements, financial aid is rendered in all the Australian States. Money advanced for the purpose, together with 5 per cent. interest, is usually repayable by half-yearly instalments within thirty-one years. Reduced passages are offered by some of the States to persons desirous of settling on the land, and others who can satisfy the Agents-General in London that they will make suitable settlers, together with their wives and families, if any.

Australia owns State railways and State tramways or street cars, State telephones and telegraphs, as well as providing old-age pensions; and for the encouragement of various industries, Commonwealth bounties are offered.

Sea-borne traffic by coastal vessels plays an important part in the transport of the country, as can be understood by anyone with the most elementary knowledge of the Island Continent. These vessels are of all sizes, up to 7,000 tons; and of the 138 vessels owned by the eleven largest coastal shipping companies, a gross tonnage of nearly 275,000 is represented. It may be explained that many of the vessels are magnificent and fast-going steamships, as well appointed and as sumptuously equipped as many of the trans-Atlantic liners.

ROBERT WILSON.

Saving Next Year's Seed.

Next year's seeding time may seem a long distance away, but it is sure to come, and this is the season to provide for it. In some localities in Old Ontario, the harvest this year is unusually good, thus providing the opportunity of securing good seed. Usually the best practice is to select seed from one's own farm, or from one's own vicinity. Such seed, in its own mute way, has learned the ways of the farm or of the community and starts out better prepared to cope with local conditions. The grain to be devoted to this important purpose should be placed either by itself or so marked in the mow that it may be threshed by itself and the grain placed in bags or bins separate from other grain. A little foresight in this regard may save a great deal of worry next spring, and pave the way for better things when the next harvest is reaped. The important thing just now is to secure the seed. For this work there is no time like the present. One has the seed and the straw and the soil and the locality and the yield before him, and in this way should be able to judge of what will best meet his requirements. No other time of the year affords such advantages, and no farmer who values a full bin should rest content with any test of seed values that leaves out any one of these features. In securing good seed, eternal vigilance and keeping everlastingly at it is the price of victory. Further, anyone who has a good field which is especially free from weeds, and which has produced grain that is above the average in quality, owes it to himself and to his neighbors to secure and to offer that field for seed. The returns in actual cash will more than pay him for all extra time and labor expended. An advertisement of such guaranteed seed in *The Farmer's Advocate* will be sure to arrest the attention of farmers who are ready and able to pay a price that will demonstrate the esteem in which good seed is held.

Particularly important is it that the farmer should save his second crop of clover for seeding purposes. This ground should be gone over with the utmost attentiveness in search of weeds. It should be harvested and threshed with the same careful diligence and when the seed is secured a fair sample should be sent to the Department of Agriculture at Ottawa. If it passes the government test the farmer need not fear to advertise it and secure a price for it that will yield good returns for his pains. Sowing good seed that is free from noxious weed seeds goes a long distance towards securing one of the conditions upon which good agricultural practice is based—a clean farm and vigorous growing crops.

J. D.

AGRICULTURE ON GOVERNMENT FARMS—I.

THE BROCKVILLE ASYLUM FARM.

It is a vast stride from poor agriculture to the most advanced form of farm management. It is no small task to take over a run-down farm and put it in a condition to be rated as one of the most modern farms in the country with regard to each and every phase of farm operations right down to cash returns and net profits. Yet this has been accomplished by many private individuals as well as by companies and by various government institutions.

One of the latest institutions under the Ontario Provincial Government to undertake practical agriculture on an extensive scale is the Hospital for the Insane, Brockville, Ontario. The head of the institution is Dr. J. C. Mitchell, a man who, while primarily interested in his profession, is also deeply concerned in things agricultural, the more so since a real farm has come under his surveillance. His farm foreman is D. McCrimmon, a practical man of much experience, and the intricate problems which are ever present in soil tillage for profit have had the effect of arousing interest in "the farm" to such an extent that every officer connected with the institution, including the Bursar, Mr. Daly, has become an agriculturist in spirit and more or less in practical reality.

Situated just outside the beautiful town of Brockville, in Leeds Co., on rising ground overlooking the waters of the St. Lawrence as they roll on towards the mighty Atlantic, bearing all kinds of craft only known to those who are privileged to live near such waters, this institution has no equal for location in this Province. Nestling under the hill among much wooded growth on the opposite side of the river is Morristown, N. Y. The view from the front is all that could be desired, while at the back, stretching for

miles, is an area of farming land perhaps not the best in Ontario, but good soil underlied with rock at various depths and well suited to mixed farming, dairying and fruit growing. The Brockville section has long been noted as a dairy country and many a good dairy cow first looked upon the light of day on the grass pastures or in the stables of the Brockville district. It is on such land just back of the asylum grounds that Dr. Mitchell and his able staff are commencing agriculture, not on an extensive scale, but to such proportions as conditions warrant. The main part of the farm proper consists of some 343 acres, all told. Of this 242 acres were operated last year, and the remainder added this spring late in the season, too late, in fact, for most satisfactory results. A great portion of the land is low-lying and nearly all needs underdraining, so a wet season like the present has been is not well suited to highest production on such land. The entire farm when purchased was only ordinary in nature and equipment. Barns and stables were only average. The land was not in a high state of cultivation, had not been farmed under special crop rotations, was largely overrun with weeds, such as wild mustard, twitch grass and others; fences were not in the best of repair and the six acres of apple orchard had been in sod for years, receiving no special attention, while nearly all the land was in need of underdraining. It was then no "bonanza" farm that came under Dr. Mitchell's and his assistants' management last spring.

Some idea of the success attained last year, when 242 acres of the land now owned was operated, may be gleaned from the following figures: Value of crops, \$4,200; value of milk from 38 milk cows, at four cents per quart, \$4,065; maximum yearly production of one cow, 11,558

pounds of milk; number of pigs kept, 200, and of poultry, 150. This is a very good showing, everything considered.

The system which it is proposed to follow in placing this farm in a condition to insure maximum production is one that should interest many who, under similar circumstances, are endeavoring to improve conditions on their own farms.

DRAINAGE THE FIRST CONSIDERATION.

All things will come in time, but the first to receive consideration is underdrainage. Much of the soil is low-lying and through it runs a small creek following a very tortuous course. A man from the Physics Department of the Ontario Agricultural College, Guelph, has just completed a thorough survey of the entire farm and he finds that it is possible to straighten the creek, run it down one side of the farm and empty it at the same place as it now empties as a large open ditch, and to run a large tile through the portion now drained by the creek, such tile and ditch to be the mains for a complete system of underdrainage to be put in by a steam ditcher. Every effort will be put forth to complete this work as soon as possible, and by it all of the farm will be thoroughly drained and placed in a condition to produce highest yields, some of it being practically reclaimed as it has never produced anything but grass owing to its wet nature. True, the work will prove expensive, but underdrainage has proved profitable on other farms and the management thoroughly believe in its future on this farm.

CROPS AND ROTATIONS.

As before stated, the acreage under crop will not be materially increased until after the farm is thoroughly underdrained. This year 115 acres



The weary sun hath made a golden set,
And by the bright track of his fiery car
Gives token of a goodly day to-morrow.
—Shakespeare.



Society of the Young.

of the land was in hay, much of it being old seeding, but some 200 tons were harvested in good condition. The remainder of the crop is oats, corn and potatoes. The oats are a good crop. A portion of this crop was sown on sod and in one field where a part of it had been fall plowed and the remainder left until spring a distinct difference could be noticed, the crop on the fall plowing being much heavier than that on the spring plowed land. The potatoes were planted with the planter, have been well cultivated, and have been sprayed with Bordeaux three times. From 800 to 1,000 pounds of fertilizer was sown per acre when the potatoes were planted. Over twenty acres of this crop are now showing the effects of good care and promise a large yield. The corn is not so good, but the season has not been favorable for this crop, and the rush of other work, coupled with a wet, backward season, has retarded cultivation and growth.

Most of the land is badly infested with mustard. To combat this troublesome pest spraying with copper sulphate solution was extensively tried this season with favorable results, the mustard succumbing to the treatment while the grains showed no evil effects. Dr. Mitchell was very much impressed with the success of the experiment and it is to be carried on in the future until the weed is brought under control.

The rotation which Mr. McCrimmon proposes following when the farm is all brought under cultivation is a three-year shift, oats followed by hay, with potatoes or corn the third season. Such a rotation, together with the manure from the pigs, cows and horses kept, cannot but increase the fertility of the land and at the same time spell annihilation to noxious weeds.

Corn and roots are to be the mainstay for the dairy herd of nearly forty grade Holstein cows. At the present time three frame silos are in use, one 14 feet by 16 feet, another 14 feet by 25 feet and a box stall 14 feet by 16 feet by 20 feet. While good satisfaction has resulted from keeping the silage in these, they are all to give place to one large cement structure to be located at the largest barn on the new farm. It must be remembered that a large dairy herd and a number of swine have been kept at the institution for some time previous to the purchase of the farm proper.

THE DAIRY HERD.

The dairy herd is managed on the latest up-to-date principles, being fed liberally the year round, milked regularly and records kept of every cow. From eight to ten of the most promising heifer calves are raised yearly, and the stable in which they have been kept previous to the buying of the farm is equipped with steel stanchions, is cemented throughout, the cows standing back to back, is light, whitewashed and clean in every particular. A stove and hot water boiler is attached to the water system and artificial heat, as well as hot water, provided right in the stable. The herd is now kept on the farm, where, in one of the barns, which is 100 feet long, a thoroughly modern underground stable is to be installed, with an abundance of light and every device to promote the health of the cows. Under present conditions the cows get their water from bowls in front of them. These have proven quite satisfactory, but Dr. Mitchell is a firm believer in

fresh air and favors letting the cows out in the yard every day for an hour or two for exercise.

A FINE ROOT CELLAR.

One of the best features of the stables at the institution is a large underground root cellar with capacity of 5,000 bushels, divided by plank partitions into five separate compartments, each with its own opening, through which it is filled, and each having in the center a square ventilator (1 foot square), bored full of inch holes about six inches apart from center to center. These ventilators extend up through the top of the cellar and are supplemented by a large one extending to the roof. This system has been found to keep the roots in good condition and no throwing back or second handling is necessary. To make it the ideal of root-house construction all the superintendent deems necessary is a raised slat floor to allow of a circulation of air underneath. With this done, no better root-house could be desired, as drainage is now complete, the cement floor all sloping to the center and front, so that no condensed moisture can remain in the cellar.

POULTRY RECORDS.

The poultry is well-housed, being kept in one of Prof. Graham's hundred-hen, twenty foot square, open front houses. This house is seven feet high in the center, has a window five feet high in the west end and a two-foot wire screen the entire length on the south side, while the north side is boarded up four feet high, with the cracks battened. In this house last winter the temperature fell to 30 degrees below zero, yet June-hatched Wyandotte and Buff Orpington pullets began to lay in November, and from December first to March 31st about seventy-five of these produced two hundred and thirty-nine dozen eggs, laying steadily throughout the coldest of the weather. The cockerels were fattened and sixty-four of those killed weighed over 370 pounds, many dressing over six pounds each. This was not a bad start for the first year and better results are looked for with greater experience. Besides being a credit to the management, it speaks

well for the type of house which, by the way, has a cement floor.

HOGS AND THEIR HOUSING.

The piggery is one to be proud of. It is 140 feet long and thirty feet wide, with a feed alley down the center and pens on either side. The pens and troughs are cement, but each is fitted with a plank-floored elevated sleeping place and ten of the pens have the high sleeping apartments built upon the partitions, plank-floored, and enclosed with wire. These have been found entirely satisfactory and are called the pig "parlors"—a real drawing-room which is not intended for luxury alone, but is a great saving of space. Each pen has a cement-partitioned and cement-floored outside apartment for feeding pigs, exercise and getting fresh air. The feed room is situated above the pigs, and in the centre of the pen a stove is built in with cement and brick and furnishes artificial heat through steam pipes connected with the water system, as well as being a source of warm water for winter feeding. Almost perfect ventilation is secured through over twenty ventilators. The manure is wheeled away some distance from the pens and dumped over a bank, so as to avoid any odor in the pens. The brood sows, forty in number, consisting of Yorkshires and Berkshires, run in a paddock near the piggery. Young pigs are sold off the sows, as much as \$1,600 being made annually from this source alone. They bring \$2.50 per pair at four weeks of age. About fifty feeding hogs are kept all the time. These are fed from refuse from the institution and upon shorts, and are made to weigh from 225 to 250 pounds at seven to eight months of age. Here is a point for the everyday farmer. There is a value beyond that recognized by most people in the kitchen refuse. Ordinary swill is good pig feed. Utilize every bit of it. From June until June \$2,071 has been made from pig feeding alone at this institution, and kitchen waste made up the greater part of the feed.

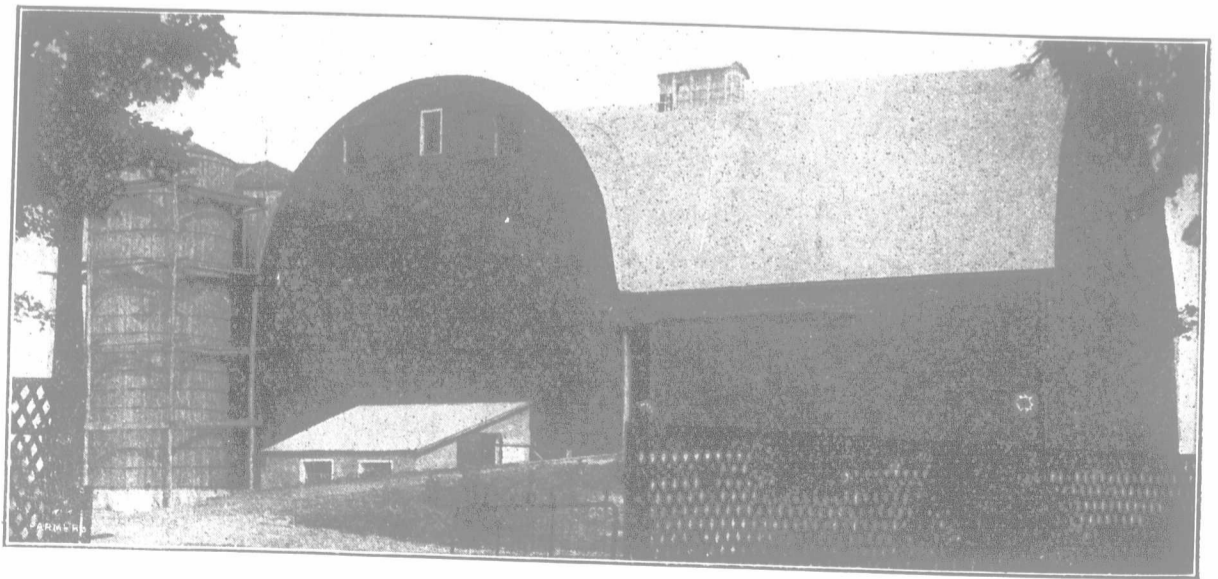
Ninety acres of rough land is to be devoted to sheep. This is likely to be a very profitable undertaking, and is a good example for farmers generally. There are hundreds of acres in this country unfit for cultivation, which grow the finest of sheep pasture, and the more quickly they are used for this purpose the better.

Gardening is carried on quite extensively, and all the vegetables for the table are produced. The orchard has been sprayed thoroughly this year and is carrying an exceptionally heavy load of fair quality, fall and early winter fruit. A few more years will see it in excellent condition.

This is only a beginning for this undertaking. Other Institutions, longer established, have made a great success of their farm. It will be interesting to watch the development of this venture, and at the same time compare it with others of the same class. All the Provincial farms are now supervised by S. E. Todd, B. S. A., a thoroughly practical graduate of the O. A. C., and great things have been and are being accomplished on these farms.

Capacious Barns and Silo.

In buildings and general farm improvements the County of Oxford, Ont., takes second rank to no other in the Dominion. This is true not only in respect to individual homesteads, but still more strikingly in respect to the general average. An exceptionally large barn even for this splendid section is that of S. A. Freeman, who farms 300 acres of land and milks about seventy cows the year round. The main barn shown in the accompanying engraving is 96 ft. x 45 ft. and 56 ft. x 40 ft. with 24 ft. posts and a total height of 48 feet from basement floor to top of roof. The roof is round and covered with corrugated metal. Mr. Freeman used to be an extensive hog feeder, but has done nothing in this



An Oxford County Barn.

On the farm of S. A. Freeman, Dereham Township. Showing also one of his four silos.

line for five years. The ell-shaped pig-pen is 150 ft. x 26 ft. and 30 ft. x 60 ft. The latter part is now used for stabling young cattle; the basement of the other part is empty, while its second storey is devoted to implement storage. For the four silos on the farm about fifty acres of corn were coming on nicely when seen by a member of our staff last July, and we are since advised that it promises to be a good average crop despite the unfavorable early season. The spring grain is also good, while late rains have helped the grass, keeping the milk flow up well to about 1,800 pounds per day, notwithstanding that about twenty cows are to freshen in October and November. The cows, however, take a good feed of silage twice a day and it helps to save the grass.

Harvesting and Threshing in Nova Scotia.

Editor "The Farmer's Advocate":

The farmers of Nova Scotia do not, as a rule, stack their grain, possibly for the reason that grain is not largely grown here as a commercial enterprise. Our people do not go in for growing large quantities to sell; only enough is grown for the horses kept on the farm and in some cases enough for fattening a few beef cattle. In fact, of late years, a great many farmers do not grow enough for the horses kept, but buy Western oats, and, incidentally, I might say, get a good deal of sow thistle, wild mustard, charlock, etc., thrown in. All the farms have barns large enough to hold their grain in the straw. When threshing time comes some who are short of room load up a lot of wagons with straw from the thresher, and afterwards store this in the last mow threshed out, which, of course, is empty.

Most farmers feed or bed their straw as it comes from the thresher. On my own farm, when through threshing, we pull out the separator, set up the straw cutter and cut the straw, remove that, set up the grain crusher and crush enough to do us through the winter and early spring. We own the straw cutter and grain crusher, but hire the threshing machine and gasoline engine. The threshing machine requires about thirteen men to operate, including the men who own the outfit. The straw cutter is operated with four or five men, and the crushing can be done by one man, who has charge of his engine, crusher and bagger, and puts the grain into the hopper of the granary, which is close at hand.

The blower is not used on the machines operated here. The straw is carried from the machine up to where it is wanted by an elevator, and is then taken by men and tramped into the mows or bays.

The granaries are usually built just opposite the spout where the grain comes from the separator and is there stored in bins, each kind of grain by itself. The grain that is to be used as seed for the following season is kept in a bin or bins by itself, is run through a fanning mill two or three times to blow out the light oats and weed seeds.

The farmers in Nova Scotia are of late years paying more attention to selecting good seed from their own grain and depending less on Ontario or Western grain.

Owing to the season of 1911 being a very dry one, the grain crop was light. For this reason many farmers were compelled to buy Western oats, a large portion of which did not germinate. This will mean a heavy loss to our farmers, and they will be compelled to buy their seed again next year. It is claimed by some that the seed was frozen; others maintain that the oats were cut green, while others affirm that the grain was threshed very wet, owing to the heavy fall rains and snows in the West, and was kiln dried, which destroyed the germ. A lot of seed sent down here and labelled as coming under the Seed Act, had the appearance of being whitened with sulphur. The only solution of the seed problem in Nova Scotia is for the farmers to grow their own seed. They have the climate and the soil for doing this with satisfaction, so that the remedy for all seed troubles lies entirely in their own hands.

A. HECTOR CUTTEN,
Colchester Co., N.S.

Alfalfa as Soil Builder and Feed.

The author of an Iowa bulletin estimates that as a soil builder each acre of alfalfa in that State annually adds to the farm over twice as much nitrogen as an average acre of red clover. As a feed, he estimates that an average acre of alfalfa produces 5.5 times as much protein as timothy, 4 times as much as oats, 2.75 times as much as corn and 2.6 times as much as red clover. As to yields, sixteen seedings made on the Iowa Station Farm since 1903 have produced an average yield of 4.38 tons per acre, and one seeding yielded 7½ tons in one year, while another has a three year average of 5½ tons.

THE DAIRY.

The Latest Holstein Queen.

Hardly is one Holstein-Friesian queen of production seated on the throne with an official record so large that it seems she will surely be able to hold her rank for some time, than she is required to abdicate in favor of a successor with a still greater production. A few months ago, Pontiac Korndyke came to the front, with the phenomenal yield of 30,422 pounds butter fat from 601.4 pounds milk in seven days, and 125.541 pounds fat from 2496.7 pounds milk

latter, say that he would still care for his milk along these improved lines even if he were to go back to the cheese factory. If all patrons did so the yield and quality of cheese would be decidedly improved.

Silage Beats Soiling.

"If you are keeping eight or ten cows and have not a silo, do not hesitate longer to build. I think after one year's use, it will be found the best investment of time and money that can be made," says a Connecticut dairyman with twenty years of experience of the subject he writes about. "We have had our herd shrink 25 per cent. in their milk flow,"

he adds, "when our silage has given out, before we could refill with clover, and we have not been able to produce results with green soiling crop, to come anywhere near the results when matured and cured silage was fed, so that we are positive silage is the best and most palatable food when rightly made and fed.

"When one considers the amount of food stored up in a 100 to 250 ton silo, and compare its value with the cost of a like amount of food stored in the average hay mow, I think they must concede that the silo offers the most economical storage of crops

and certainly will pay for itself very quickly whenever it is adopted on the dairy farm. Build the silo, brother dairymen; use judgment in the construction and size of the same to fit the needs of your herd, and do away with the long, laborious, undesirable green-soiling system for summer feeding of your dairy."

Highest Producing Cows Most Valuable.

A new standard has been set up in regard to official records of dairy cows. A Holstein owned in New Jersey, Valdessa Scott 2nd., claims the honor of being the first 40-lb. cow the world has ever known.

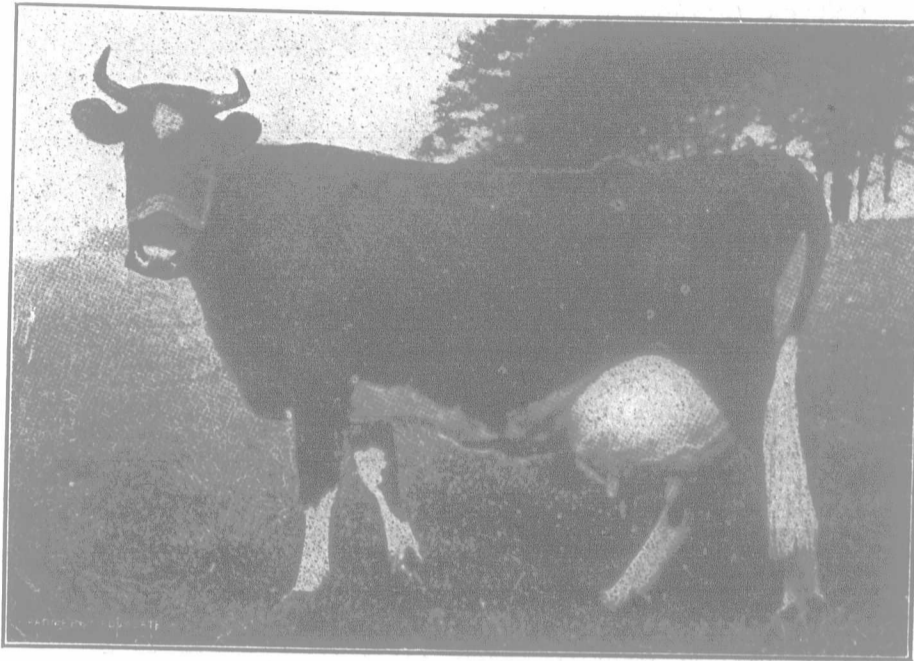
Her official test report shows that she yielded in seven days 33.50 lbs. of fat, equal to 41.875 lbs. of butter, 80 per cent. fat, a record that has never been approached by any other cow of any breed.

The significance of these great records lies in the fact that they enable us to select and breed from the individuals and families possessing the tremendous powers of digestion and assimilation necessary to the production of milk and butter in large quantities at the lowest possible cost.

As one of our foremost dairy authorities points out: The cow giving the most milk and butter-fat leaves the owner with the most net cash profit without regard to cost of keeping, when compared with low-producing cows on small cost of keeping.

This is a phase of dairy economics that is hard to comprehend by a great many farmers. But every experiment and trial that has yet been made, we believe, proves the assertion to be true. We have heard hundreds of farmers, however, declare the contrary. And it is passing strange how such a notion got into their heads and more strange how it continues to stay there.

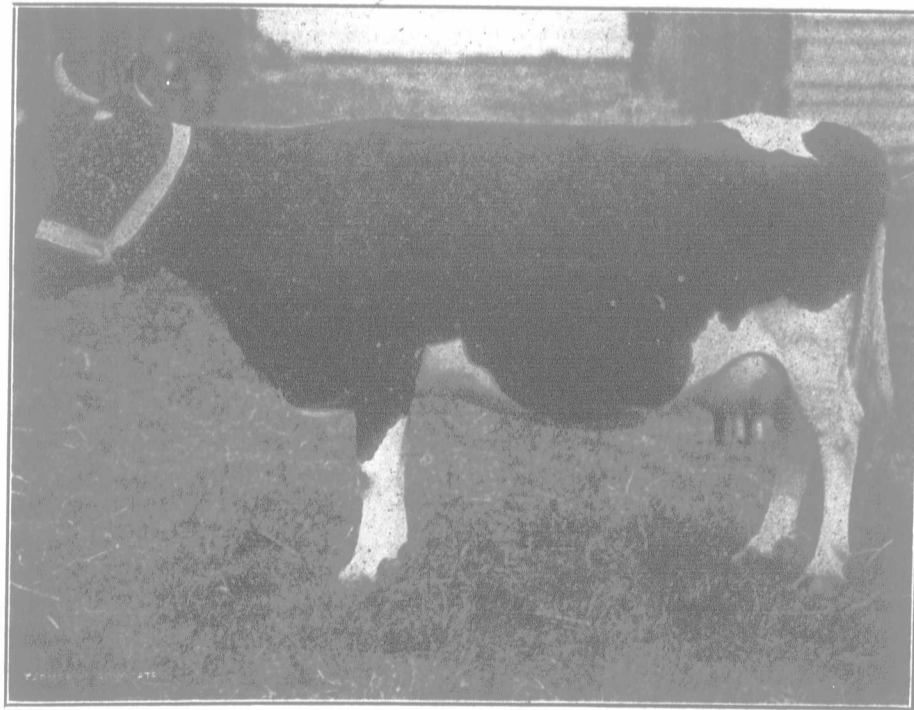
The wise, well posted farmer says: "I must



Golden Horn of Glynn 5816.

Guernsey cow. Owned by Col. Edward St. Aubyn, Glynn, Bodwin, Cornwall.

secreted in thirty days. Now she must stand back for a new wonder, Valdessa Scott 2nd, with the much greater test, fully verified, of 33.5 pounds fat from 694.6 pounds milk in seven days, and 132.388 pounds fat from 2933.9 pounds milk in thirty days. This is an average of 4.51 per cent. fat for the whole thirty days, and the daily average production for that time is 97.79 pounds milk containing 4.41 pounds butter fat. Valdessa Scott 2nd is eight years old, was bred by B. B. Hardy, of Michigan, and is owned by Bernhard Meyer, of New Jersey. She is in no way closely related in blood lines to the cows that have been



Shetland Cow, Griseda.

First and champion in class, Highland Show, 1912.

for many years prominently before the public, and the discovery of a wonderful cow among the "outsiders" is cited by Malcolm H. Gardner, Superintendent of Advanced Registry, to prove his claim that there are hundreds of great cows among the Holstein legions. It is surely a strong argument in favor of testing cows. Records reveal the doers.

There is a real satisfaction in doing things "up to the handle." For instance, in regard to the care of milk, we have heard more than one dairymen who changed over from cheese factory to condensary, installing the cooling facilities and observing the details required from patrons of the

see to it first that I have profit-making cows. Then I must feed them up to their best capacity with the right kind of feed. In that way only can I make the largest profit."

G. W. GLEMONS.

Experience with Milking Machines.

A thoroughly successful milking machine is the greatest boon for which Dairying has been looking to invention. The difficulty, the impossibility, almost, of keeping enough first-class help to hand-milk a large herd without the task becoming a great burden, is driving many dairymen to go out of the business, to cut down their herds or to invest in mechanical milkers.

A large number have been used in Australia, where dairying is conducted in many instances on a wholesale scale. Thousands have also been used in the neighboring Republic, one American firm of manufacturers having sent out over four thousand. A few had also been placed in Canada, principally in Ontario, though some had been purchased by Quebec and Western dairymen. While Prof. Dean's experience with this make was not wholly satisfactory, other dairymen have claimed more satisfactory results.

Last winter the Farmer's Advocate and other agricultural journals carried the advertisement of a machine different from the one most commonly known in Canada. It works on the principle of pressure and suction combined, being therefore an approximate imitation of sucking. Quite a number of these machines have been placed in Canada within the last few months and so far as we have heard they appear to be giving satisfaction. The accompanying half-tone was made from a photograph taken last month by a member of our editorial staff in the dairy of Isaac Holland, Oxford County. Mr. Holland has a herd of 52 cows, and though he has a good-sized family to help milk, had concluded that he would have to sell ten cows unless a machine could be got to do the milking. He accordingly invested in a four-unit machine at a cost of \$550, exclusive of the gasoline engine. He has been exceedingly well pleased. In a letter written August 19th, he stated that the herd of 52 cows, of which six were then dry, were producing between ten and eleven hundred pounds of milk a day. He thought they were milking as well as or better than on the same date last year, considering the stage of parturition, many being winter milkers. Only about four of the older cows fail to give their milk down freely. He anticipates no particular trouble from cows having udder affections, as the symptoms would be noticed when emptying the milk or stripping out the cows. Two other machines of the same make in his neighborhood are also giving good satisfaction.

R. A. Penhale, of Elgin County, is milking a herd of 31 cows with a two-unit machine, costing, with gasoline engine, about \$600. His herd also seems to be keeping up its flow satisfactorily as compared with previous years, giving between five and six hundred pounds a day. One man has milked and stripped them since June 1, requiring one and a half hours mechanical operation at each milking. Mr. Penhale would prefer a machine of three or four units. Each unit milks one cow and costs \$110.00 besides the pumps, tanks, engine and fittings. The machine is not a difficult one to cleanse and Mr. Penhale feels satisfied his cows are being as well milked this year with the machine as they have been any other year by hand. While possibly not as good as a first-class hand-milker, he considers it is better than the average milker.

In connection with the foregoing we append the following extract from a letter received last February from R. E. Gunn, of North Ontario Co., Ont. For nearly two years Mr. Gunn had then being using on Dunrobin Stock Farm five machines of the make last tested at the Ontario Agricultural College, and had found them satisfactory in every way. To quote from his letter:

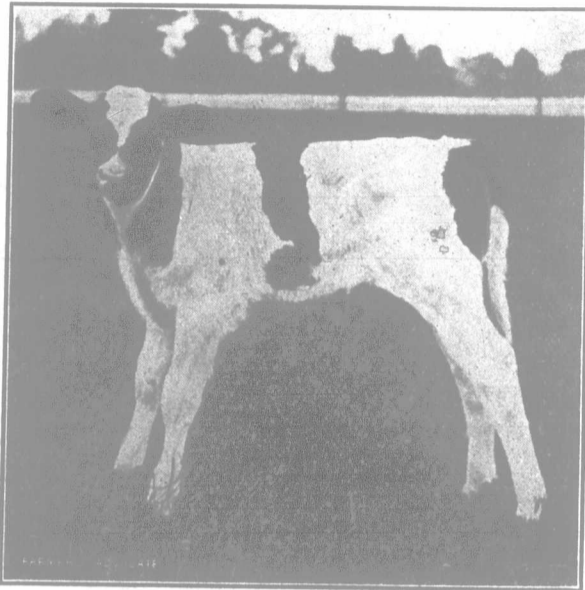
"If your representative would drop into 'Dunrobin' at any time we will be pleased to show him the machine working satisfactorily, the cows holding up in their yields and some seventy cows being milked by four men in an hour and a half to two hours

"If I for one had to depend on the hired help you can get to-day for \$25.00 a month to do the milking I would quit dairy farming to-morrow. However, we have been gradually increasing our herd until now we have over 130 females that will be giving milk in the course of a few months.

"The milking machine, like all mechanical contrivances, is not possessed of brains, so intelligence must be used in its operation. We have found that in closely following the manufacturer's instructions there is little or no trouble. Some cows will not milk with the machine, but we have found that they are about four per cent. of the whole. Heifers are the most adaptable to

mechanical milking, as they have known no other way, and so milk out clean with the machine. We always have strippers following the machines and we weigh the milk drawn by the machines and the strippings in separate columns on our weight charts, so as to know what we are doing."

The experience of these and other investors will be closely watched, especially during the late autumn and early winter. If results continue satisfactory the ensuing sale of milking machines in Canada will be large.



King of the Ormsbys.

At 14 days old. A full brother of Jennie Bonergies Ormsby, who holds the senior two-year-old butter record of the world for a year, and has a seven-day record of 33 pounds of butter (80-per-cent. basis), and a thirty-day record as a four-year-old of over 125 pounds. Owned by D. C. Flatt & Son, R. F. D., Hamilton, Ont.

GARDEN ORCHARD.

Smoking Cigars by Machinery.

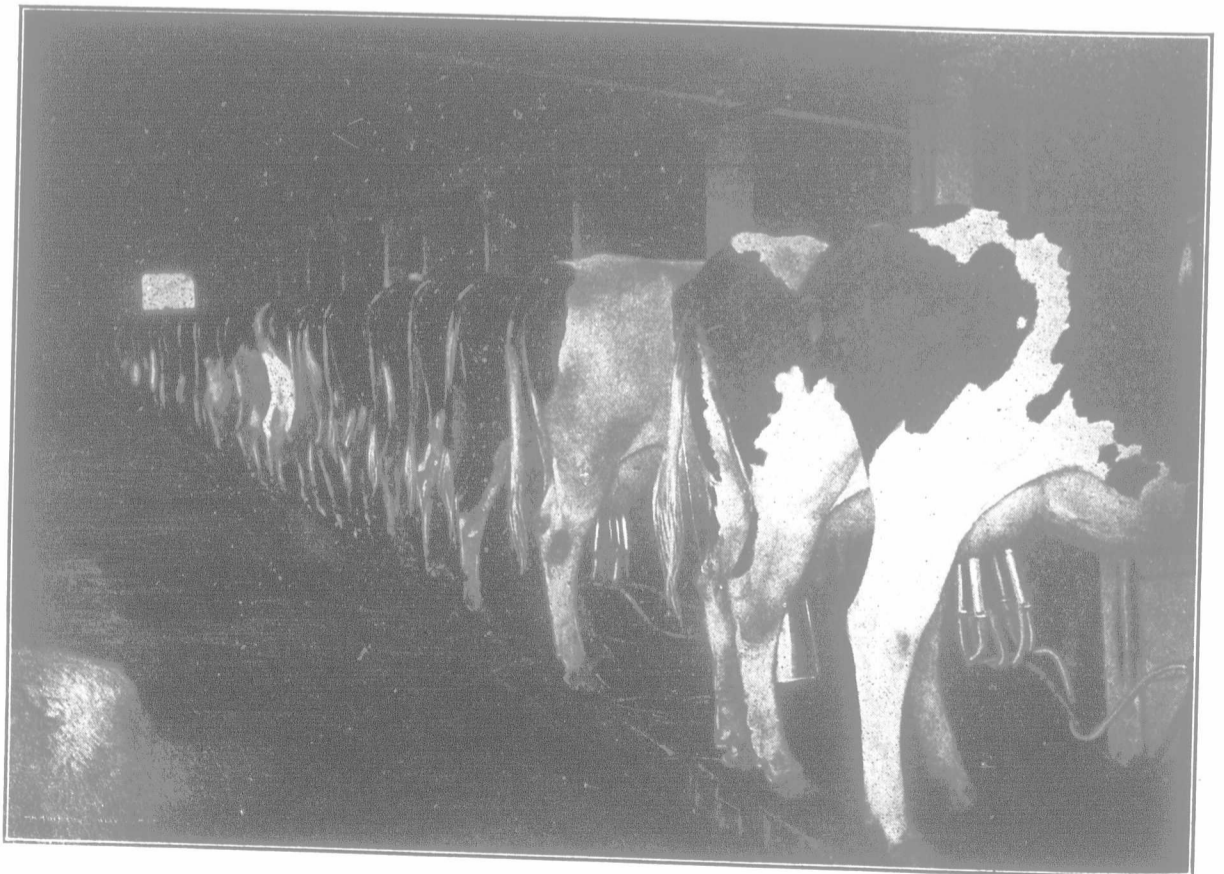
Although the average annual production of tobacco in the United States reaches nearly one billion pounds, for which the farmer receives about \$100,000,000, the net profit to the farmer is much smaller than it should be. Among the principal causes for small profits from such an important crop are failure to follow sound cultural methods, use of unadapted varieties or strains, damages by insects and diseases, and imperfect knowledge of the principles that apply to the processes of curing, fermenting, and handling the leaf. To remedy these conditions the American Department of Agriculture in 1898 began to investigate the improvement of tobacco production.

Cultural Methods.—The early work of the De-

partment with tobacco was confined almost entirely to the cigar types, but since 1905 investigations have been in progress in the manufacturing and export districts. In most of these districts the average yield has been much less than could be obtained by better cultural methods. In the Connecticut Valley, where the soils are maintained in a high state of fertility, yields of 2,000 pounds and over to the acre are common, while on similar soils in many of the manufacturing and export districts the average yield is scarcely one-third of what it should be. One of the improper cultural methods to which this lack of yield is largely due is growing tobacco on the same land year after year instead of practicing rotation of crops. The work of the Department along this line has been to correct this one-crop system of farming whereby the fertility of the soil is exhausted. These efforts have succeeded so well that the production in Maryland, Virginia, and North Carolina has greatly increased, and the Virginia Legislature has made an annual appropriation of \$5,000 in support of this work.

Breeding and Selection.—In developing acclimated strains of Sumatra and Cuban tobaccos by systematic seed selection it was found that the old standard types could be greatly improved in productiveness and other characteristics, and several desirable types were produced. A large quantity of tobacco seed is grown directly under the supervision of the Department's tobacco specialists located in the various tobacco-producing centres, and is annually distributed. Supplies of seed of the new and improved types are also distributed to those desiring to grow these types.

Scientific and Technical Investigations.—Efforts to introduce the growing of a high-grade cigar-filler leaf from Cuban seed in the Southern States have demonstrated that this industry can be made a success. A satisfactory substitute for the imported Sumatra wrapper leaf has resulted by growing Sumatra and Cuban types under artificial shade, and in 1911 over 2,000 acres of such tobacco (worth \$2,000,000) were grown under shade in the Connecticut Valley. The Cuban bulk method of fermenting has been successfully introduced into northern cigar-tobacco districts, resulting in a more uniform and better product. Substantial improvements in the methods of curing are now being introduced, notably in the use of artificial heat in curing cigar-tobaccos, thus eliminating the loss from pole-sweat, which is estimated to have caused losses in some years amounting to \$1,000,000 in the Connecticut Valley alone. Poor burning quality in cigar-tobaccos renders them of little value. This subject has been thoroughly investigated and the principal influencing factors have been worked out. A somewhat unique feature of the laboratory methods was the development of the Department's automatic cigar smoker, a device for smoking or burning under uniform and controlled conditions a large number of cigars used in the tests. This device has eliminated the necessity of the actual smoking of cigars by those conducting the tests, except for the final test for aroma. The necessity for such a device can only be appreciated by those who have been called on to try smoking a few hundred cigars made from raw tobacco, in the effort to find the one good plant needed as the



A Milking Machine at Work.

foundation for developing a type satisfactory to the exacting consumer.

Insects and Disease.—Satisfactory methods have been devised for controlling most of the important insects that attack tobacco, particularly those damaging the crop during the growing period. Tobacco is also subject to a number of destructive maladies, such as the Mosaic disease, which occurs throughout the world, and the root-rot, a disease particularly troublesome in the Connecticut Valley. In 1906 the Department perfected a soil-sterilizing device, which has been used very successfully wherever root-rot is prevalent.

American vs. European Farming.

The World's Work for August contains a noteworthy article entitled, "Farming the Best of All Trades," written by Eugene H. Grubb, of Colorado, an unlettered man, who, after knocking about at all kinds of jobs till he was nearly forty, got hold of a couple of thousand dollars, and began farming in earnest. He has achieved a signal success, not only as a cattle breeder, in which line he won the two-year-old championship at Chicago in 1904 with a load of range bred and range grown Short-horns, but also as a potato grower. His Mt. Sopris farm now comprises 2,000 acres. Here in 1886 during his first year, he dug three and a half miles of irrigation canal with his own hands.

In 1900 he made his first trip to Europe, travelling slowly through France, Germany, Belgium and the British Isles. He was astonished to find that American farm practice was fifty years behind European farm practice. "Think," he says, "of our wornout soils and our uncertain crops, and compare them with Lord Rosebery's feat of growing 55 long tons (2,000 bushels) or more than 120,000 pounds of potatoes to the acre on land that has been cultivated for a thousand years. And there are no crop failures on his land, either; nor crop failures on other English or German growers' lands. Or think of William Dennis & Sons, who began forty years ago on six acres and who have grown rich by growing potatoes on 3,

000 acres of rented land, the valuation of which is \$500 an acre.

Two things strike to the root of the European farmers' success:

1. Care of the soil.
2. Selection of seed.

"European farmers think of nothing so much as they do of feeding the soil. Only two methods of restoring fertility to the soil are known to man, and these methods they practice ceaselessly. One is to grow on it and plow into it the leguminous plants: clover, alfalfa, rye, vetch. The other is to feed it fertilizers: a combination of the expensive minerals known to farmers as "commercials" (nitrate of soda or other nitrogenous salts), and, best of all things, barnyard muck. Therefore, you will see William Dennis & Sons maintaining 600 head of cattle on a 3,000-acre farm, not primarily to produce beef or butter or milk, but to manufacture fertilizer so that they can grow the potatoes that have made them rich. They plant grass or vetch in the fields the day that a crop of early potatoes is lifted, so that another year of fertilizing may begin at once, and that the soil may be kept free of fungous and other injurious growths, and that it may be kept open and friable.

"On my own Mt. Sopris farm I run 500 head of cattle, rotating my crops on a six years rotation: two years in potatoes, four years in alfalfa and clover. Thus, of 500 acres of tillable soil (the rest of the farm is pasture uplands). I have every year 100 acres in intensive potato cultivation. I have never sold a stalk of hay from my farm, and would think it a crime to do so; for every wisp of hay that leaves it would mean the robbing of the soil of that much fertility. The proper method is: feed your land muck to make it fertile enough to raise more hay to feed to cattle to manufacture more muck to feed to the soil to grow dollars in the form of potatoes to buy more cattle for which to grow more hay to make more muck to feed the soil again. Always, as you value your farm, remember the generous but always hungry soil.

RESULTS AT HOME.

"You may ask, what have I achieved by my

theory? Last year, for example, I (and three neighbors who use the same methods and exchange experiences) had a full crop when every other farmer in our valley, on exactly the same kind of land and under the same conditions of climate, had a greatly lessened yield. I have twenty-six years' experience on the same lands, and the last twelve years I have applied these methods. During these twelve years I have had a steady increase in average yields. I have increased my yield of potatoes from 100 bushels to 400 bushels an acre; my yield of oats from 40 bushels to 100 bushels an acre; and wheat from 25 bushels to 50 bushels. And I have eliminated crop failure from my experience. When the soil is in perfect physical condition you will always have large yields.

"Another indispensable element in soil culture is tile drainage; so that air and water may be drawn freely downward through the soil from the surface of the earth. Strange as it may seem, drouth is least disastrous where the soil most readily permits water to sink through it. Tiling at a cost of \$40 an acre is a profitable permanent investment on land that is worth \$100 an acre for intensive cultivation—indeed, on any land.

"For 1909, the average yields per acre of the greatest potato yielding countries were: United Kingdom, 221.1 bushels; Germany, 208.9; France, 160.3; Russia, 111.5, and the United States, 94.4 bushels. The acreage of the United States in that year was 3,525,000 acres, and the total yield, 376,537,000 bushels; and yet 8,383,966 bushels, valued at \$3,766,034, were imported from more than nine foreign countries. If the better methods of Europe were employed in the United States, even estimating an average yield equal only to that of Russia, the least advanced of the civilized nations, our increased production would be 24,027,500 bushels—more than enough to duplicate our exportations of that year and to leave two and one half times the amount imported.

"European methods can be adapted to American conditions. I have made a reasonable fortune doing it, and have found happiness beyond the happiness of any other kind of life I have ever



Growing Celery at Kentville, Nova Scotia.

On the farm of A. V. Pineo. Mr. Pineo has grown a few thousand heads during the past couple of years, and hopes to develop the business to commercial proportions.



As They Do it in Scotland.

seen. To encourage the spread of this better farming is my ambition. And if others have my experience, they will find in the tilling of the soil a life of abounding healthfulness and unfailing interest, a field for energy and intelligence, full of satisfaction, of dignity, of independence, and of peace."

The Apple Problem.

This would be fine weather for studying the young ducks—if it were not so wet. For several weeks we have been living between showers, and the ducks are the only things on the farm that are thriving. They are in their element. The hens and turkeys look bedraggled and discouraged, but the ducks are growing like weeds, and they are busy all the time. They find puddles everywhere and the creeks are full of water and life is just one round of pleasure. I have promised myself the pleasure of making a careful "nature study" of the ducks, but I shall have to put it off until I can do it dry shod. If I tried to follow them in their rounds, to observe their habits and listen to their inspiring conversation, I would need to wear a diver's suit. But I am determined to do it, because the ducks are about the only things on the farm that I have not studied at one time or another. Besides, I find that ducks have been neglected by the poets and historians and writers generally. Milton has celebrated the hen—tame villatic fowl. The goose saved Rome on one occasion, and have not the turkeys held the place of honor at many a lordly feast? They have their place in every Christmas and Thanksgiving poem and story. But the humble and succulent duck has waddled through life "unwept, unhonored and unsung." At the present writing I can remember only two places where they are mentioned in song. All singers of college songs are aware that Clementine drove her ducklings to the water every morning just at nine, and those of us who learned to read in the old primers can remember that:

There was a little man
Who had a little gun
And his bullets were made of lead, lead, lead.
And he went to the brake
And he shot a little drake
And he shot it through the head, head, head.
But in spite of this neglect the duck must have been an object of affection, for it seems to me that I have heard "ducky" used as a term of endearment. Undoubtedly the ducks are a promising subject, and when the weather dries a little I shall take a pencil and pad and get after them.

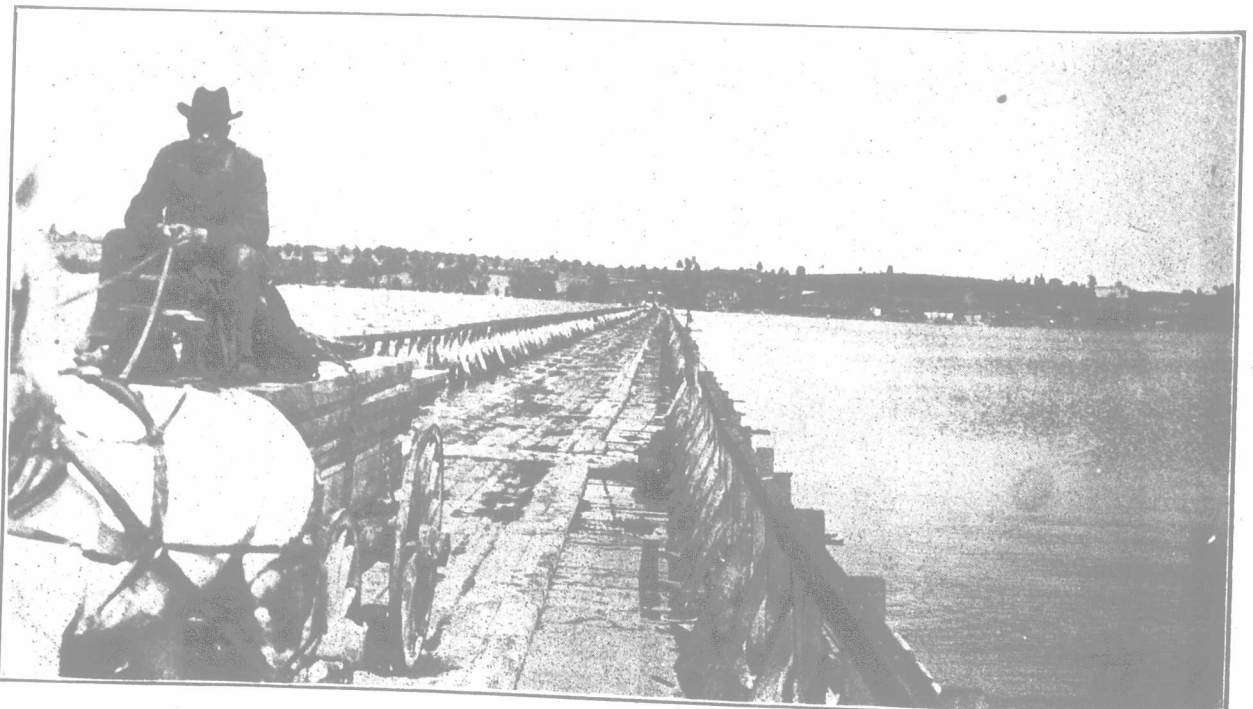
Almost every day I am hearing of apples being sold for a dollar a barrel, and I am wondering about it. The latest reports from Ottawa say that the prospects are that there will be a strong demand for Canadian apples in the British market, and the indications are that if anything the price to the consumers will be higher than last year. A correspondent who is trying to work independently on the Toronto market and has been doing so with some success has written:

"This season I have been working out an economic experiment in buying for some of the big consumers in the city, with the result that I have brought down on myself the usual monopolistic efforts to stifle competition, but the experiment is a commercial success and it is likely to have important results in breaking up the monopoly. I hope to have an opportunity of going into this more fully with you later.

"I hope that not many of your growers are selling at a dollar a barrel with trimmings. They must be less sophisticated than ours. We outgrew the boarding swindle years ago and often bargain for the buyers to pick as well as pack the apples. I gather from the crop reports that the outlook is not at all unfavorable for a good demand, and there is no need of accepting such a low figure—certainly not half of last year's price."

This is all very well, but how are we to get the proper prices? One farmer who had sold his orchard for a dollar a barrel told me of his last attempt to act independently. With a few neighbors he shipped a carload of choice fruit to the British market and when the returns came he did not get enough to pay for his barrels. I do not wonder that he sold for what he could get. In his opinion the orchardists who are not able to form an association for handling their apples are in a worse position than ever before. They are absolutely at the mercy of the buyers and commission men.

Here is a bit of conversation that occurred in the village a few days ago. It shows the attitude of the average farmer towards his orchard better than anything I have yet heard. A man



Floating Bridge Across Lake Chemong, Peterboro Co., Ont.

asked another if he had many apples this year. "Yes," was the surprising reply, "and I haven't got any pigs." He wasn't joking either. As he has no pigs the apples on the trees will probably rot on the ground. In his orchard there are thirty thrifty Spies and a lot of other standard trees, but it did not seem worth while for him to spray them, and as he lives about eight miles from an evaporator factory, he could not make wages by hauling them to town.

From what I read in the bulletins, I supposed that apples would be about the most profitable crop that a man could possibly raise, but we shall have to have some demonstrations in selling before I will be convinced.

There is another matter in connection with this problem of marketing farm produce and the high cost of living that is causing me some surprise. I was wondering why the consumers do not take some action in the matter. They certainly pay high prices for what they buy, and I cannot help thinking that they should take some action towards buying direct from farmers. If they did this they could probably afford to pay us better prices than the regular buyers, and at the same time get their products more cheaply. It is easier for city people to get together and I cannot see why they should not do it, instead of expecting the producers to do all the work of marketing and carrying their products to city doors. Last summer a visitor from the West told me how the women of the church which she attends got together, and ordered fruit in quantity from British Columbia, and got good fruit for less than half they would have to pay to local dealers who handled them through the commission trade. But in this part of the world the consumers seem to content themselves with grumbling about the high cost of living. If they would make an effort to meet the producers half way it would be better for both.

It seems to me to be about time for the farmers of the country to reverse a joke that I remember reading some time ago. A witty epicure had just dined lavishly at a good restaurant and on the street was accosted by a beggar, who whined:

"I must live."

"I do not see the necessity," said the well-fed witty one, as he passed on his way. At the present time the business-man world is so organized that prosperous people seem to be saying to the complaining farmer:

"I must get rich."

Is it not about time that the producing farmer answered:

"I do not see the necessity," and proceed to arrange matters so that he cannot be held up at every turn.

Speaking of ducks a letter has just come to hand in which my correspondent writes: "This is a great day for ducks and they seem to be making the most of it. We have quite a number of ducks—Indian Runners—great layers of white eggs. They are laying yet. I stood talking to a neighbor one day last week when they hurried past in single file to get into the wheat field and as we looked at them one dropped an egg, actually on the run. Maybe that is why they call them Indian Runners."

I think I shall have to try to get a setting of those ducks next spring. My correspondent writes further:

"The other day I noticed a teamster working his horses near here. One of them had a bob-tail, flies were very bad, but the humane man improvised a tail out of raffia and attached it to the bob-tail. The way in which the horse used it was

proof of its efficiency. I made up my mind right there to write and tell you about it."

There are a number of other interesting and important things in my correspondent's letter and I shall deal with them later. I am glad that I am not the only one who is observing the amusing things that happen on the farm. Although they may seem but trifles, they help to cheer us with our work.

Norfolk Apple Crop Disposed Of.

Jas. E. Johnson, manager and secretary of the Norfolk Fruit Growers' Association, has disposed of the entire crop of the Association to J. G. Anderson, of Lucknow. This deal means the transfer of from 40,000 to 50,000 barrels of apples from the well-cared for orchards of the association and the sale of the Norfolk crop is always one of the big events of the apple sale season in Ontario.

Mr. Johnson informs the Farmer's Advocate that the sale was made along strictly co-operative lines. The crop, he says, is somewhat uneven, some orchards yielding very well. He also believes that the Fruit Growers' Associations and growers generally in Ontario should not make the error of trying to get too large a price for their apples, which would result in a loss to the retail merchants in the Northwest. Generally speaking, the merchants last year lost money on Canadian apples, and this year it would be policy for the fruit growers of Ontario to dispose of their apples to the dealers at such a price that they can make a good legitimate profit and at the same time give them the best quality that was ever packed in the Province. Mr. Johnson says:

"This year there is a heavy box pack crop in the West and they will have a great many apples to place on our Canadian markets and if our apples do not compare favorably with theirs we will get the worst of it in the next few years."

A Century Old Apple Tree.

According to the Weekly Market Growers' Journal, North Carolina can boast of having the largest apple tree in the United States. This tree is said to be sixteen feet five inches in circumference at the ground and twelve feet six inches just below the first limb, which is eight feet above the ground. Records say this tree was a large tree ninety years ago and is still bearing. The variety is known to the people in the section in which the tree stands as the "Rich Apple," from its rich, yellow-red striped color and rich flavor. The fruit matures in September and keeps until late fall and is of medium size. The article concludes: "Not alone is this big tree declared to be the largest apple tree in the world; if cut the stump would give room for several men to stand on it at one time, and if it was hollow and lying down an ordinary cow could walk through its length and not touch her back or sides."

If an apple tree can weather all the adverse conditions over upwards of a century and still bear fruit, with the scientific methods now being practiced in the best orchards, there should be practically no limit to the life of apple trees.

POULTRY

Dry Feeding with Hoppers.

Of the several important forward steps made in recent years, probably the adoption of the all-dry-food method of feeding both chicks and fowls is the greatest, says a bulletin issued by the Cyphers Company Service. It not only effects a saving in downright hard work, but it gives excellent profits in health of flock and egg yield. The marked distinction between the dry-feeding method and that of feeding the mash wet or cooked is that the dry mash is kept before the birds in hoppers all the time, whereas the wet mash constitutes one or another of the three usual daily feeds. Those who fear that under the dry mash system the fowls will overeat and become lazy do not realize what the dry-feeding method really is. By it only the mash portion of the food should be kept constantly before the birds. They still have plenty of opportunity to derive exercise while foraging out of doors or scratching through litter for grain feed, as the case may be.

HOW DRY FEEDING IS DONE.

In superintending dry feeding the essential thing is that one shall give a glance at the hoppers as he passes along through the pens, and if any are seen to be getting low, refill them. Of this dry mash the birds eat what they want at any time, as the appetite prompts them. It is found that they prefer the dry grains of the scratching food to the mash, and will scratch and work for that so long as there seems to be reasonable expectation of finding a kernel, then when their search is no longer rewarded by a find they

turn away to the dry-mash hopper, if still hungry, and eat a few mouthfuls of mash.

At no time do the birds eat more than a few mouthfuls, because, being dry and somewhat difficult to swallow, they eat no more of it than they absolutely crave and the "mouthing" they give it enables them to salivate and swallow. They cannot gobble down a lot of it, as they do when a moist mash is fed, and it was the old-time moist mash that enabled the hoggish ones in a flock to load up with a great quantity of mash, and then go upon the roost to idle the time away till the mash was digested. Those were the birds that came down with the liver disease or other digestive troubles, and that accumulated fat till they were "baggy" behind and worthless as layers.

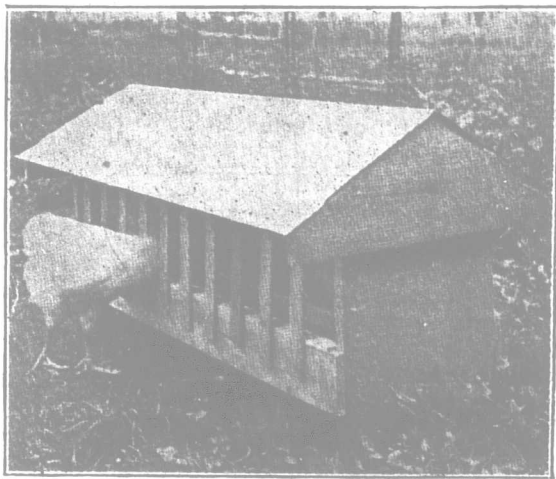


Fig. 1.—Outdoor Dry-food Hopper in Use.

Hopper is made so that the wind cannot blow the dry food out nor can the chicks get into the feeding space and waste the food. Fully protects food from rainy weather. Will accommodate 12 to 15 fowl at a time without crowding.

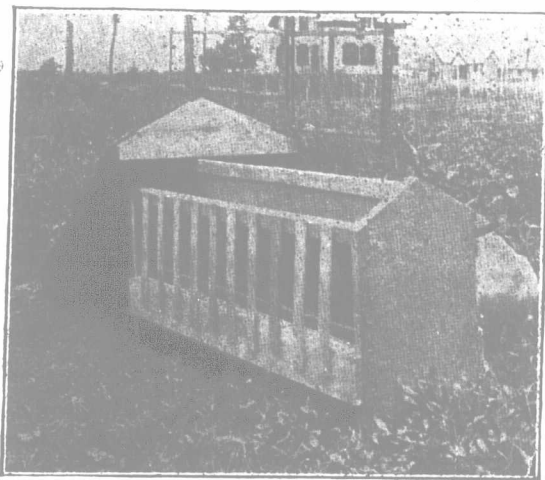


Fig. 2.—Outdoor Dry-food Hopper with Cover off for Filling.

The roof or cover may be made as wide as desired. The eaves should be brought down low enough to prevent rain or snow beating to wet the feed and cause waste. Cover should be securely hooked to guard against being blown off by wind.

THE FARM BULLETIN

No Institute Tent at Toronto.

It has been thought well not to have a tent on the Canadian National Exhibition grounds for the Ontario Department of Agriculture this year. The heads of the various branches are interested in exhibits located at different points and these they will make their head-quarters. The Institutes and Dairy Branch will have head-quarters in the West wing of the Dairy Building, while the other branches and the Ontario Agricultural College will be found in the new Government's Building. Very interesting exhibits covering the work at the Agricultural College, the Fruit Branch and Field Crop competitions of the Agricultural societies, as well as Special Exhibits from a number of the sections in Northern Ontario will be found in the Government's Building, while the Dairy exhibits will be found in the Dairy Building.

The supreme joke of the American legislative bodies' flagrant disregard for treaty pledges, in regard to discrimination in toll rates on the Panama Canal, is President Taft's plan for testing the legality of the provision, through suits entered by foreign nations in the United States Courts. An international Court, like the Hauge, would not do. It would be too impartial.

Wet Weather Reflections from New Brunswick.

Editor "The Farmer's Advocate":

Readers of the Farmer's Advocate in the Maritime Provinces were interested in the statement in Peter McArthur's interesting letter in August 18th issue saying that he had about completed haying, and, at that, ten days before date of issue. Here it is now nearly the middle of the month and a great many have not started yet. Just waiting, like Noah of old, until the waters have abated. On the night of the 20th of July, it commenced to rain, and with only two exceptions, rain has fallen every day since August 13th. With the optimism for which farmers are noted, we looked forward to a change of moon to give us relief. The change came, like all things that are waited for, but alas with the "new moon" came the worst storm in the memory of man, the heavens seemed to be rent assunder with lightning and thunder and the rain poured in torrents. The land, saturated, enough before, is to-day in a condition that is serious. The marshes for which this country and Cumberland, Nova Scotia, are famous, are one vast lake and it will take weeks of dry weather before machines can be worked on them. Uplands are in about as bad a plight, and roots are the greatest sufferers. For three weeks no cultivation was done on account of the wet, and weeds, which seem to thrive on wet soil as on dry, are in evidence everywhere. Turnips that were not thinned before the wet weather set in are now covering the ground, and if the weather clears will likely be further neglected, as all our energies will be directed to getting the hay saved. This means a small crop of roots, which is to be regretted, because at least the over-ripe hay will be poor fodder, but would, with full cellars of succulent roots, carry the stock through the winter all right. That misfortune never comes singly, is well illustrated this year. Of late years farmers in this locality, listening to the importunities of Institute speakers, mostly men, from the drier climates of Ontario, and reading in the columns of the agricultural press the advantages of using clover, have been seeding down largely with that useful plant. Those who are used to handling clover hay, may imagine what it is like now, at this late date and the results so disappointing, that the old custom of seeding only with timothy will be resorted to.

In both the counties referred to, hay is the principal crop, the money crop of the farmer, and all others are only side issues. The Dorchester, Sackville and Tantramar marches, which yield large crops every year without the aid of manure or fertilizer of any kind, provide an easy way to keep the pot boiling, and selling hay is so much easier work than feeding stock and caring for it, that the natural result is that the upland is yearly becoming more impoverished on account of the scarcity of live stock, that it is doubtful if, after all, too much "marsh" is not more an injury than a blessing. One thing is certainly noticeable. Those farmers who own no marsh, and have only upland farms, are the most progressive of our farmers. They having to manure and fertilize their farms, live stock is a necessity, and the paying results are shown in their comfortable buildings and tidy, well-kept farms. The fathers of the present generation were all live stock farmers. There was not much demand for hay, shipping facilities were not as good as at present, and nearly all the hay raised was fed to stock. The city butchers could get a carload or two of beef steers at every station. Now beef is imported to fill the local demand. The farmer sells his hay instead, and buys his beef and nearly everything else needed for his family. In those bye-gone days, taking care of the cattle and colts during the winter provided employment for father and boys. Now the boys go into the city or go West, and the father sells the hay, and hires the help, if he can, or goes without. However, a better day is dawning. Already there is a rift in the clouds. The high price of horses has set men thinking, and thinking is leading to results. The best mares are busy at work raising colts. There are several high-class Clydesdale stallions being well patronized. Buyers are coming in, horses are changing hands at good figures, and while beef raising is not getting its proper place on our large hay farms, dairy herds are increasing, and the foundation of several pure-bred Ayrshire herds is under way. With the stimulus given by both Federal and Provincial Governments to the sheep industry, we hope to see our young men go into that most profitable of live stock breeding. Already a few have their ears to the ground, and are making enquiries for flock headers, and we sincerely trust the day is not far distant when the raw material will be manufactured on the farm.

A. MCP.

Westmoreland Co., N. B.

Conditions of the Fruit Crop.

The fruit crop report issued August 15th, by the Fruit Division of the Department of Agriculture, Ottawa, says that the wet weather has caused a luxuriant growth and the weather has been very favorable to the cover crops but has induced fungus diseases to a certain extent. Apple scab is reported from practically all the apple sections and it is safe to say there will be a much larger proportion of No. 3 fruit this year than usual. Hail has done serious injury to fruit in the Nelson and Kootenay district of British Columbia.

No marked change has taken place in the prospects for the apple crop. The weather upon the whole has been favorable except so far as the damp weather has induced fungus. Nearly all correspondents report the growth as excellent, larger indeed than usual. There does not appear to be any exceptional complaint with reference to insects. The general average for the Dominion starts at 69 per cent. for early apples, 65 per cent. for fall apples, and 61 per cent. for winter apples, or an average for the Dominion of 65 per cent.

Pears are good in the inland valleys of British Columbia, but rather light in Easter Canada.

Plums are light in the West, below average in Eastern Canada, with the exception of Nova Scotia.

Peach trees which withstood the winter in British Columbia are well loaded. Ontario has a medium crop, which is likely to be largely taken by the canners.

Grapes will be a good crop, of large fruit, and tomatoes give prospect of a very large crop although the acreage is small and not sufficient to supply the demand.

The fruit prospects for Europe are below average, while conditions in United States are fair, the crop being evenly distributed, and slightly above the average in those states competing with Canadian apples.

Buying is reported as not quite so keen as in former years, but market conditions on the whole are fairly reassuring, a bumper crop is sure in the American Pacific States.

Ontario Crop Bulletin.

The Ontario Department of Agriculture has issued a statement of crop conditions under date of August 12th. Fall wheat is reported as patchy and has ripened unevenly, delaying harvesting, making it two weeks later than usual. Showery weather caused sprouting in the shock in some districts, but the bulk of the grain is of fair quality, while the straw was of medium length, with more rust than usual. Yields range from 10 to 35 bushels per acre, the poorest being along Lake Erie.

Spring wheat, not extensively grown, short in straw, well-filled and a good average crop. Wild Goose variety most in favor.

Barley will show a fair yield of plump grain in nearly every county. The straw is short, and harvest comparatively late, with wet weather hindering in many districts.

Oats are a first-class crop, heads well-filled and straw clean. Harvesting began August 5th, but owing to late ripening will not finish until the end of the month.

Rye is not extensively grown, but yield and quality will be good.

Peas are reported much better this year than during the last few years. Yields vary from 5 to 30 bushels per acre. Northern Ontario sends very favorable reports.

Beans promise an average crop, although late.

Hay gave a fair crop the Province over, with timothy a little better than clover. All new seedings, alfalfa included, promise well.

The corn will likely be the poorest in years. Fields are generally thin and unpromising, owing to wet, cold weather. In some of the Western counties the white grub has done much injury to this crop.

The tobacco crop is also poor, owing to wet weather, wire worms and grubs.

Potatoes are reported as showing prospects of a heavy yield, especially in the Western counties. Beetles were not as troublesome this year, and a little blight and rot are reported.

Conditions are now more favorable for the root crop. Mangels and sugar beets are doing better than turnips and are likely to be a good crop.

There will be a fair yield of fall apples, but the better class of winter varieties will be rather scarce. San Jose scale and caterpillars are still complained of, but very little mention is made of scab. Pears will range from poor to fair in yield, and the same may be said of peaches, one

correspondent suggestively saying of the latter, "Good where cared for." Plums will be a fair crop, and the yield of cherries upon the whole has been a good one. Grapes, as usual, give promise of a large yield, although considered a little late in growth this season.

Pastures and Live Stock.—Pastures have greatly revived, and at present they are green and inviting. Live stock are in a good healthy condition. Cattle are at present in brisk demand at good prices. Fodder supplies will not be abundant, but careful feeders will have a sufficiency in most localities. The silo is more and more getting to be regarded as the key to the feeding situation. Straw is more plentiful than last year.

Farm Labor.—Farm labor is reported to be as scarce or scarcer than ever, and the quality of much that is offering is unsatisfactory. Farmers are trying to meet the shortage of help by using larger implements and other improved machinery, interchanging labor with neighbors, and doing more grazing. Wages range from \$1.25 to \$1.50 per day, and from \$20 to \$40 per month with board.

Choice Live Stock at Edmonton.

The live stock display at Edmonton's 1912 exhibition was one of the choicest that has been seen in Western Canada. Dairy cattle were much stronger than has been seen at Western exhibitions, with the exception of Calgary, while beef cattle surpassed in numbers and quality the line-ups of all previous years. Sheep and swine showed an increase in numbers and the horse classes are stronger each year. Another feature was an extensive horticultural display, consisting of fruit from British Columbia and vegetables of all kinds from the vicinity of Edmonton.

The horse exhibit was made up of Clydesdales, Percherons, Belgians and Suffolk Punches, besides the lighter breeds. John Bright, Myrtle St., Ont., and R. E. Dreunna, Kenora, placed the awards.

Clydesdales.—The aged stallion and aged filly classes were especially strong, but the classes for younger stock were not so well filled. There were twelve aged stallions forward and eleven aged fillies. Awards—Aged stallions, 1, W. C. Sutherland, on Revelanta's Heir; 2, P. A. Switzer, on Royal Diadem; 3, P. M. Bredt & Sons, on Royal Robin; 4, Davis & Morton, on Ben Turret; 5, Western Canada Land Co., on Culinan. 3-year-olds, 1, Vanstone & Rogers, on Red Cap. Two-year-olds, 1, C. McLaughlin, on Excelsior; 2, Charles Ellet, on Quality's Marquis. Brood mares, 1, R. J. Bray, on Irene. Aged mares, 1, R. J. Bray, on Pirene; 2 and 3, P. M. Bredt & Sons, on Dunrobin Pearl and Nannie Grenwell; 4, Sutherland, on Bonnie Craigieland; 5, P. A. Switzer, on Jeanie Armour. Two-year-olds, 1, Sutherland, on Craigie Belle; 2, P. M. Bredt & Sons, on Queen Alexandria. Champion stallion, Revelanta's Heir. Champion filly, Craigie Belle. Canadian-bred champion filly, Pirene. Best draft team, P. M. Bredt & Sons.

Percherons.—In number of entries and quality of exhibits this breed showed better than on previous occasions. Aged stallions, 1, Geo. Lane, on Perkisko Institute; 2, Walter Spore, Jr., on Epitant; 3, R. J. Manson, on Igame; 4, M. Boyd, on Gourgault; 5, W. C. Henderson, on Morsie. Geo. Lane had the only entries in aged mares, showing four good individuals. Lane also won the class for three get of sire and exhibited a fine six-horse team of registered stock. Lane took both championships.

Belgians were shown by W. C. Henderson and A. Haazen, Regina, and St. Cyr Villetard, Beaumont. Henderson got first and second in aged stallions. Haazen first in three-year-olds and two-year-olds. Villetard first in three-year-old fillies. Haazen won everything in two-year-old fillies, and Henderson's stallion, Paul de Montignies, was made champion.

A good exhibit of Suffolk Punches was made by Baker & Hunt, of Fort Saskatchewan.

CATTLE.

Beef cattle were judged by John Gardhouse, of Highfield, Ont., and dairy cattle by G. H. Hutton, Lacombe, Alta.

Shorthorns.—Competition in this breed was good, but lighter than at other Western exhibitions this year. J. H. Melick, Edmonton, P. M. Bredt & Sons, Edenwold, G. J. Sayer, of Illinois, and H. A. Kidney, of Edmonton, were chief exhibitors. Sayer's Uxor Prince headed the aged bull class, and Melick's Pride of Albion the senior yearlings. These two bulls fought it out for championship honors, the aged bull being senior champion, the younger bull junior, and finally grand champion. In the female classes, Sayer's Fair Start 2nd was first in three-year-olds, Melick's Maxwellton Gloster 3rd headed the two-year-old class, Sayer's Maxwellton Missie the senior yearling class, and Melick's Clover Leaf Dorothy the senior calf class. Sayer's Fair

Start 2nd was senior and grand champion, and Melick's Clover Leaf Dorothy junior and reserve.

Herefords.—This breed was especially strong and made up for the beef breeds what was lost in the Shorthorn classes. L. O. Clifford, Oshawa, Ont., Simon Downje & Sons, Carstairs, Alta., G. H. Cresswell, Edmonton, Alta., and J. A. Chapman, Hayfield, Man., were the chief exhibitors. Clifford took the large end of the money, but in most classes had to fight for it. He got senior and grand championship on his aged bull Refiner and senior, junior and grand championship female on Miss Brae 26th and Miss Brae 34th.

Aberdeen-Angus.—J. D. McGregor, of Brandon, O. V. Battles, of Iowa, and Jas. Bowman, Guelph, Ont., fought it out again with honors distributed much as upon previous occasions. McGregor's aged bull Leroy 3rd of Meadow Brook was senior and grand champion, and Bowman's Elm Park Beauty Prince junior and reserve. McGregor's noted cow Violet 3rd of Congash was senior and grand champion and Battle's Myra of Rosemere junior champion female.

Of the dairy breeds Ayrshires were out in greatest numbers. In this breed competition was keen between the herd of P. D. McArthur, North Georgetown, Que., and several Western herds. J. J. Richards & Sons, Red Deer, received the male championship on Netherall Douglas Swell, McArthur's Whitehall Freetrader was reserve. McArthur's aged cow Amaryllyis of the Willows was made champion female, and Richards' heifer Homeward Cinderella reserve champion.

In Jerseys, B. H. Bull & Son's, Brampton, Ont., cleaned up most of the money in strong competition.

In the swine pens competition was keen throughout, and especially in Berkshires and Yorkshires, while most of the sheep classes were closely contested, and on the whole the entire live stock exhibit at Edmonton outclassed that of former years.

Death of Professor John Craig.

In the sudden death at his summer home, Siasconset, of Prof. John Craig, the New York State College of Agriculture, Ithaca, loses the distinguished head of its horticultural department. Of Scottish origin, he was born at Lakefield, Quebec, in 1864, receiving his education at the Montreal High School, Iowa College of Agriculture, and Cornell University. After spending some time in orcharding in Quebec, he became horticulturist at the Central Experimental Farm, Ottawa, 1890 to 1897. He next became horticulturist at the Iowa State College for two years, taking up extension teaching at Cornell University in 1902, and since 1903 has been horticulturist at that institution. He was chairman of the section of horticulture and botany in the American Association of Agricultural Colleges and Experimental Stations and shared in the work of the American League of Civic Improvement and was a member of several leading horticultural organizations.

Death of Professor Scovell.

The death is announced of Professor M. A. Scovell, Director of the Kentucky Experiment Station, and Dean of the College of Agriculture, who passed away at his home at Lexington on August 15th, after an illness of two weeks of inflammation of the heart. Dr. Scovell had been a most diligent worker for the advancement of agriculture, particularly in its dairy development, and the pure food movement had no better balanced advocate. He was a sincere champion of the Jersey breed of cattle, and the dairy herd established at the College was exclusively of Jersey blood. His services as a judge were frequently sought by prominent fair associations in the States, and last year he officiated acceptably in this capacity at the Canadian National Exhibition at Toronto. He was a man of kind and gentle disposition and was held in the highest respect and esteem by all who had the pleasure of his acquaintance.

The Ontario Department of Agriculture is arranging plans for the introduction of pure-bred live stock (cattle, sheep and swine) in New Ontario by the formation of small local associations of settlers who will be supplied with male animals under certain conditions. The idea is to develop in given districts breeds or type of cattle and other stock best suited to the local conditions and needs. Some Shorthorns have already been placed on the demonstration farm at Monteith, and a milking strain sire is to be secured from the Old Country. This autumn a number of hogs will be placed on the farm and sheep at a later date.

The Dominion Dairy Station to be operated on commercial lines at Finch, Ont., was opened for the reception of milk on August 23rd.

Saving Money in Good Times

HOWEVER wise it may be to invest money in lands, implements, stock or improvements, it is much to be recommended that every farmer should maintain a Savings Account and add to it regularly and systematically.

Every farmer should aim to accumulate a cash reserve as a protection and as an available asset in times of special need.

Open a Savings Account with

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Every courtesy and assistance is rendered depositors and others wishing to transact business with the Bank.

110 Branches in Ontario, Quebec and the West. Assets \$57,000,000.

MARKETS.

Toronto.

REVIEW OF LAST WEEK'S MARKETS

At West Toronto, on Monday, August 26, receipts of live stock numbered 78 cars, comprising 1,499 cattle, 377 hogs, 564 sheep, 98 calves, and 31 horses; trade slow; prices easier. Exporters, \$6.75 to \$6.90; bulls, \$5.25 to \$5.50; butchers', heavy, choice, \$6.50 to \$6.75; good, \$6 to \$6.50; medium, \$5.50 to \$5.75; common, \$4.50 to \$5.25; cows, choice, \$5.25 to \$5.50; common and medium, \$4 to \$4.75; canners', \$1.50 to \$3; bulls, \$2.75 to \$3.75; milkers, \$4 to \$8.5; calves, \$4 to \$8.50; feeders, \$5 to \$5.60; stockers, \$4 to \$4.50. Sheep, \$3.50 to \$5; lambs, \$6.75 to \$7.50. Hogs, \$8.65 fed and watered.

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

	City.	Union.	Total.
Cars	83	220	303
Cattle	792	3,244	4,036
Hogs	1,651	3,475	5,126
Sheep	1,756	1,523	3,279
Calves	376	485	861
Horses	34	109	143

The total receipts of live stock at the two yards for the corresponding week of 1911 were as follows:

	City.	Union.	Total.
Cars	291	235	526
Cattle	3,594	3,137	6,731
Hogs	5,533	4,175	9,708
Sheep	4,715	2,099	6,814
Calves	724	209	933
Horses	29	62	91

The combined receipts of live stock at the City and Union Stock-yards for the past week show a decrease of 223 cars, 2,695 cattle, 4,582 hogs, 3,535 sheep, and 72 calves; but an increase of 52 horses, compared with the corresponding week of 1911.

The same week last year there were 1,500 cattle exported, and only 180 this year, which, to a large extent, accounts for the decrease in cattle.

While the receipts were not as large as for the preceding week, there was plenty to supply the demand, especially in all classes of cattle. Prices declined all the way from 15c. to 30c. per cwt., and on no day at either market was there a clearance made, and on Monday at the Union yards there were fully 600 cattle unsold at the close of the market. Some of the drovers refused to accept the prices offered on Monday, but had to take less later in the week. And judging from what we have seen and heard, cattle prices on the Toronto markets have not yet touched rock bottom.

Exporters.—There was only one buyer of export cattle, Mr. Howard, who bought for Swift & Co., of Chicago, all told, 185 cattle, as follows: For London, he bought 75 steers, 1,310 lbs. each, at \$7.10 to \$7.25, and only one load at the latter figure; for Liverpool,

110 steers, 1,247 lbs. each, at \$6.80 to \$7.10. Early in the day trade was very slow, and it looked as though there would not be any cattle bought for export, as prices here are too high when compared with the British markets.

Butchers'.—All classes of butchers' were easier. Choice picked lots, and there were few of them, sold at \$6.85 to \$6.90; good to choice, \$6.50 to \$6.80; good, \$6 to \$6.25; medium, \$5.25 to \$5.50; common, \$4.50 to \$5; choice cows, \$5 to \$5.25; good, \$4.50 to \$4.75; common, \$3 to \$4; canners', \$1.50 to \$2.50; bulls, \$2.75 to \$5.25.

Stockers and Feeders.—Stockers, 500 to 700 lbs. each, sold from \$3.50 to \$4.75, according to quality; steers, 800 to 900 lbs., sold at \$5 to \$5.25; steers, 950 to 1,000 lbs., \$5.25 to \$5.50. There were 30 steers, 1,000 lbs. each, bought to be used later in the distillery, at \$5.25 to \$5.60, but they were all of good breeding qualities.

Milkers and Springers.—Choice heavy cows, Holsteins or Shorthorns, with good milking qualities, sold from \$75 to \$80 each; medium and good cows, \$55 to \$70; common cows, \$40 to \$45.

Veal Calves.—The market continues strong for all good quality calves. Prices ranged from \$3 to \$8.50 per cwt., the average price being about \$6.75. A few choice new-milk-fed veals brought \$8.75 and \$9 per cwt.

Sheep and Lambs.—Light ewes, \$4.25 to \$5; heavy ewes and rams, \$3 to \$3.75; lambs were firmer at the latter end of the week, selling up to \$7 per cwt., the average price being about \$6.65.

Hogs.—The market was firm all week, at \$8.60 to \$8.75, fed and watered at the market, and \$8.30 to \$8.35 f. o. b. cars at country points.

BREADSTUFFS.

Wheat.—No. 2 red, white or mixed, 95c. to 98c., outside points; Ontario, fall, new, 88c. to 90c. per bushel; Manitoba No. 1 northern, \$1.13; No. 2 northern, \$1.10; No. 3 northern, \$1.07, track, lake ports. Oats.—Canadian Western extra No. 1 feed, track, lake ports, 45c.; Ontario No. 2, 41c.; No. 3, 40c., outside points; No. 2, 43c. to 43½c., track, Toronto; No. 3, 42c. to 42½c. Rye.—No. 2, 70c. per bushel, outside. Peas.—No. 2, 90c. per bushel. Buckwheat.—70c. per bushel, outside. Barley.—For malting, 60c. (47-lb. test); for feed, 48c. to 50c. Corn.—No. 3 yellow, 84c.; track, Toronto; on track, Collingwood, 79½c.; No. 2 mixed, track, Midland, 78c. Flour.—Ninety-per-cent. Ontario winter-wheat flour, \$3.80 to \$3.85, seaboard. Manitoba flour.—Quotations at Toronto are: First patents, \$5.70; in cotton, \$5.80; second patents, \$5.20; in cotton, \$5.30; strong bakers', \$5 in jute.

HAY AND MILLFEED.

Hay.—Baled, car lots, track, Toronto, No. 1, \$12 per ton. Straw.—Baled, car lots, track, Toronto, \$10 to \$10.50 per ton. Bran.—Manitoba bran, \$22 to \$23 per ton; shorts, \$26; Ontario bran, \$23 in bags; shorts, \$25, car lots, track, Toronto.

COUNTRY PRODUCE.

Butter.—The market for butter was reported as steady. Creamery pound rolls, 28c. to 30c.; creamery solids, 27c. to 28c.; separator dairy, 26c. to 27c.; store lots, 22c. to 30c. Eggs.—Strictly new-laid, 27c. to 30c. Honey.—Extracted, 10½c. to 11½c. per lb.; combs, per dozen sections, \$2.50 to \$3. Cheese.—Twins, 14½c. per lb.; large, 15c. Poultry.—Receipts have been larger. Live spring chickens, 16c. to 18c.; live ducks, 12c. to 13c.; hens, 11c. to 13c.; old roosters, 10c. per lb.; turkeys, 18c. per lb. Potatoes.—Canadian potatoes, car lots, track, Toronto, per bag, \$1.15 to \$1.25.

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, 11½c. to 12c.; country hides green, 10½c. to 11c.; calf skins, per lb., 13c. to 17c.; lamb skins and pelts, 35c. to 40c. each; horse hides, No. 1, \$3.50 each; horse hair, per lb., 35c.; tallow, No. 1, per lb., 5½c. to 6½c.

WOOL.

Unwashed, coarse, 13c.; unwashed, fine,

14c.; washed, coarse, 19c.; washed, fine, 21c.; rejects, 16c.

TORONTO SEED MARKET.

It will be seen that the choice grades of alsike are firmer. Alsike No. 1 per bushel, \$8.75 to \$9; alsike No. 2 per bushel, \$8 to \$8.50; alsike No. 3 per bushel, \$7 to \$7.25; alsike No. 4 per bushel, \$6.60 to \$6.75.

FRUITS AND VEGETABLES.

Receipts of Canadian fruits and vegetables were exceedingly heavy, and prices lower. All quotations are for the 11-quart basket, unless otherwise specified. Apples, 20c. to 35c.; canteloupes, 50c. to 75c.; per case, \$1 to \$1.25; cabbages, per dozen, 40c. to 50c.; corn, per dozen, 12c.; raspberries, 12c. per box; red currants, 75c.; black currants, \$1.50 to \$1.75; peaches, 25c. to 30c. for small basket; 75c. to \$1 for large; gooseberries, 75c. to \$1; tomatoes, 35c. to 40c.; blueberries, \$1 to \$1.25; celery, per dozen, 40c.; eggplant, 60c. to 75c.; onions, Spanish, case, \$3; watermelons, 25c. to 50c. each; lemons, crate, \$4 to \$6; oranges, \$4 to \$4.50.

Montreal.

Live Stock.—Supplies of choice cattle were limited on the Montreal market last week, and prices for this grade were firmer. Northwest ranchers and Manitoba domestic cattle are coming forward, and full loads sold at 6½c. to 6¾c. per lb., some going as high as 6¾c. Canning beef sold as low as 2½c., and up to 4c. per lb. Common sold at 4c. to 4½c., and medium up to 5c., while good ranged up to 6c., and fine to choice up to 7c., and even 7½c. Quebec lambs brought, \$2.65 to \$3.75 each, while Ontario lambs brought 6c. to 6½c. per lb. Sheep sold at 3½c. to 4c. per lb., and bucks and culls at 3½c. to 3¾c. Calves ranged from \$3 to \$10 each, and hogs brought all the way from 7½c. to 9c. per lb., weighed off cars, Montreal.

Horses.—The market for horses continued very dull, as is only to be expected at this time of year. Lumbermen, however, should begin purchasing in about another month. Prices steady, as follows: Heavy draft horses, weighing from 1,500 to 1,700 lbs., \$300 to \$375; light draft, 1,400 to 1,500 lbs., \$225 to \$300; inferior, broken-down animals, \$75 to \$100 each. Choice carriage or saddle animals, \$350 to \$500 each.

Dressed Hogs.—Demand for dressed hogs good, and prices ranged from 12½c. to 12¾c. per lb., for abattoir-dressed, fresh-killed.

Eggs.—Market showed little change, although second quality was easier on account of plentiful supply. Selects sold at 28c. to 29c.; straight receipts being firm, at 23c. to 24c. per dozen, and seconds, 21c. to 22c.

Honey and Syrup.—Honey, steady, at 10½c. to 11c. per lb. for white clover comb; dark comb, 7c. to 8c.; white extracted, 8c. to 8½c., and dark, 7½c. to 8c. Maple syrup in wood, 6½c. to 7c. per lb., and in tins, 7½c. to 8½c. per lb.; maple sugar, 9c. to 9½c.

Butter.—Exports are practically nil. At the auction, creamery changed hands at 25½c. to 25¾c., but the regular quotation for choicest was 26c. The country price was 25½c. to 26½c. Manitoba dairy sold at 21½c. to 22½c., the quality not being finest, the best being ¼c. more. Local prices may have to decline slightly.

Cheese.—Market for cheese rather firmer; prices fractionally higher in the country. Finest Western quoted at 13½c. to 13¾c.; Townships about ¼c. less, and Quebecs possibly ¼c. less than Townships. Exports keep up well, being about 915,000 packages, or about 40,000 behind a year ago.

Grain.—Market for oats about steady, at 47c. to 47½c. per bushel for No. 2 Canadian Western, or for No. 1 feed; No. 3 Canadian Western about 1c. less, carloads, ex store.

Flour.—Practically no change. Manitoba first patents, in wood, \$6.10 per

barrel; seconds, \$5.60; strong bakers', \$5.40. Ontario patents, \$5.25; straight rollers, \$4.85 to \$4.90. Flour in bags 30c. per barrel less.

Millfeed.—Prices held firm. Bran, \$22 per ton in bags; shorts, \$26 per ton; middlings, \$27 to \$28 per ton; pure grain mouille, \$32 to \$34, and mixed, \$30 to \$31.

Hay.—The market for hay is being affected by the new crop, and prices have declined somewhat. No. 1 hay, \$17 to \$18 per ton, pressed, carloads, track, Montreal; No. 2 extra, \$16 to \$16.50; No. 2 good, \$15 to \$15.50; No. 3 hay, \$12 to \$12.50, and clover mixed, \$10 to \$11 per ton.

Hides.—Lamb skins have advanced to 40c. each, the wool being longer. The rest of the market steady, and demand good, at 11c., 12c. and 13c. per lb. for hides, and 17c. and 19c. per lb. for calf skins; horse hides, \$1.75 to \$2.50. Tallow, 1½c. to 3c. per lb. for rough; and 6c. to 6½c. per lb. for rendered.

Buffalo.

Cattle.—Prime steers, \$9.25 to \$9.50; shipping, \$8.50 to \$9; butchers', \$5.50 to \$6.65; heifers, \$4.50 to \$8; cows, \$2.75 to \$6.50; bulls, \$4 to \$6; stockers and feeders, \$4.25 to \$5.65; stock heifers, \$3.75 to \$4.25; fresh cows and springers, \$30 to \$70.

Veals.—\$4 to \$12. Hogs.—Heavy, \$9 to \$9.10; mixed, \$9.10 to \$9.15; Yorkers, \$8.75 to \$9.15; pigs, \$8.65 to \$8.75; roughs, \$7.75 to \$7.90; stags, \$5 to \$7; dairies, \$8.75 to \$9.

Sheep and Lambs.—Lambs, \$4.50 to \$7.50; a few at \$7.65; yearlings, \$5 to \$5.50; wethers, \$4.75 to \$5; ewes, \$2 to \$4.25; sheep, mixed, \$3 to \$4.75.

Cheese Markets.

Woodstock, Ont., 13½c.; Madoc, Ont., 13½c.; Brockville, Ont., 13½c.; Kingston, Ont., 13½c.; Vankleek Hill, Ont., 13½c.; Alexandria, Ont., 13½c.; Picton, Ont., 13½c. to 13 7-16c.; Napanee, Ont., 13½c. to 13 7-16c.; Iroquois, Ont., 13½c.; Cornwall, Ont., 13½c.; Ottawa, Ont., 13½c.; Cowansville, Quebec, 13½c.; butter, 26½c.; Watertown, N. Y., 15½c. to 15¾c.; Belleville, Ont., 13½c., 13 9-16c., 13½c., 13 11-16c.; London, Ont., 13½c. to 13 7-16c.; St. Hyacinthe, Que., 13c.; butter, 25½c..

Chicago.

Cattle.—Beeves, \$5.75 to \$10.50; Texas steers, \$5 to \$6.85; Western steers, \$6.25 to \$8.85; stockers and feeders, \$4.40 to \$7.85; cows and heifers, \$2.65 to \$8.10; calves, \$6.50 to \$10.25.

Hogs.—Light, \$8.15 to \$8.80; mixed, \$8 to \$8.75; heavy, \$7.85 to \$8.65; rough, \$7.85 to \$8.05; pigs, \$5.50 to \$8.15.

Sheep.—Native, \$3.25 to \$4.35; Western, \$3.25 to \$4.30; yearlings, \$4.40 to \$5.40. Lambs, native, \$4.50 to \$7.10; Western, \$4.50 to \$7.30.

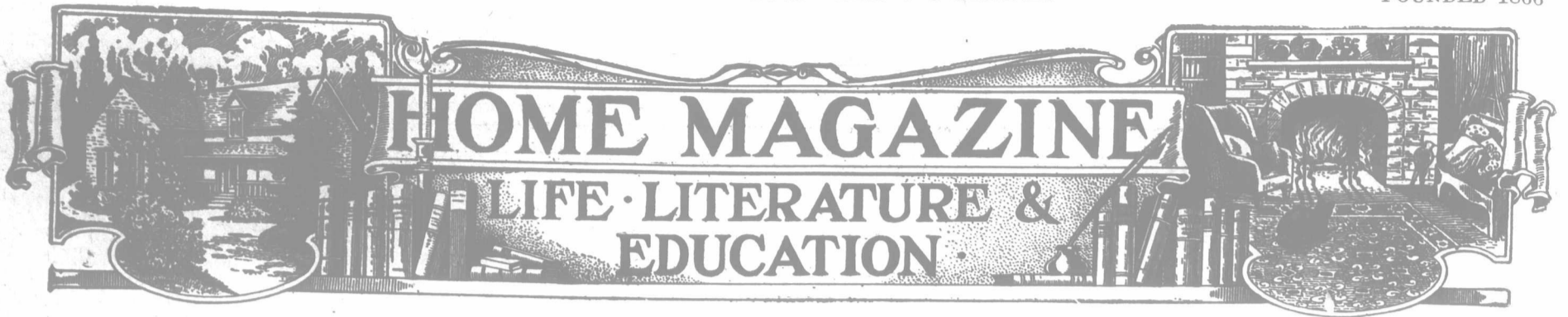
British Cattle Market.

John Rogers & Co., Liverpool, cable quotations, both States and Canadian steers, from 13½c. to 13¾c. per pound.

'Twas in the good old days when the "cat-o-nine tails" was used freely. Scene: Quarter-deck of H. M. S. Hardship. Pat Murphy and Jock McLean had been breaking leave and had been ordered to receive ten strokes each of the "cat." When the time came for their punishment the captain, considering their previous good character, said that if they wished to wear anything to protect their backs a little they could do so. The Scotchman replied that he would like to have a piece of canvas on his back. The request was granted, and then Pat, on being asked what he would like, said, "Shure, sir, if it is all the same to you, I would like to have the Scotchman on my back."

Bride (back after elopement)—Well, here we are, pa. Won't you give us your blessing?

Her Dad—Yes, daughter; no trouble about the blessin', but board and lodgin' will be at reg'lar rates.



Little Trips Among the Eminent.

Sir Thomas Lawrence.

(1769—1830).

In the series of sketches which have already appeared in these pages, touching upon the lives of British artists, enough has been said to show that in art, as in most other things, Great Britain has won a place of her own among the great nations of the earth.

There still remain the names of five among those of the more eminent artists to complete the list,—Lawrence, Constable, Wilkie, Landseer, and Watts. Of these that of Sir Thomas Lawrence is undoubtedly the most illustrious, although not, perhaps, the best known, that of Landseer holding pre-eminence in this respect.

Sir Thomas Lawrence—plain Thomas Lawrence to begin with—was born in Bristol on May 4th 1769, the son of an innkeeper, and the youngest of a family of sixteen.

The father had been educated for the law, but his career had been rather chequered. He had become, successively, "attorney, poetaster, spouter of odes, actor, revenue officer, farmer, and publican, and had prospered in none of these callings," hence it is not surprising to find that as old age drew on with a sixteenth child added to his family, his outlook became rather unusually uncertain. Oddly enough, it was this sixteenth child who was to become, before long, the chief support of the family.

Before half a dozen years had passed, the little lad evinced an astonishing precocity. When he was but five years of age his father used to put him on the table of the inn and require him to draw the portraits of his customers and recite for them passages from Milton and Shakespeare.—Just here, are we of the present day falling upon degenerate days intellectually? Who now would listen long to passages from Milton and Shakespeare, even though recited from an inn table by a wonderful, golden-haired lad of but five years of age, as did those customers of the Black Bear Inn at Devizes less than one hundred years ago?

The story is told that upon one occasion Lord and Lady Kenyon arrived at the inn, tired. The landlord at once began to tell them how his son could recite and draw, when in came the child riding on a stick. Attracted at once by his beauty, they became very much interested, and presently Lady Kenyon asked if he could draw their portraits. "That I can," he said, "and very like too." He was put on a high-chair, and within an hour had drawn remarkable likenesses of both. That of the lady, done in pencil and delicately shaded, was recognized twenty-five years after.

When the boy was but ten years of age his father failed in business, left Devizes, and went to Oxford, where he induced his son to set up as a portrait painter. It became the fashion to be painted by the handsome little prodigy, and so, at this early age, he became the chief support of the household.

Later the family removed to Bath, and here again orders for portraits came in plenty, the studio of the child of twelve becoming, indeed, "the resort of the beauty and fashion and taste of the city."

At seventeen he had progressed so far that he was able to write to his mother—and that without conceit, for he was never conceited.—"Excepting Sir Joshua, for the painting of a head I would risk my reputation with any painter in London."

This consciousness made him long more and more to try his skill in the great metropolis, hence in 1787 he went up to London, took a house, and, by his father's advice, gave an exhibit. His extreme youth, however, was now past; he was no longer a "prodigy," and his exhibit did not set the city on fire. There was nothing to be done, therefore, but to study and work upward as the other artists were doing.

At once he began to study at the Academy,

where he was received kindly by Reynolds, but for several years he did not try to sell more than paid expenses—often a large enough contract, because of an unhappy habit his father possessed of speculating with certain loss, leaving the son to make up the differences.

After a time, however, the years of unflagging perseverance met with their reward. Commissions began to come in, and almost with a bound Lawrence became a favorite painter of the nobility. On the death of Sir Joshua Reynolds, much to the chagrin of the members of the Academy, who, nevertheless, could not dislike him, so generous and sweet of disposition was he, he was made principal portrait-painter to the royal family. Before he was twenty-four, by influence of King George III., he was made an Associate of the Royal Academy, and henceforth his fortune and his fame were both assured. Two years later, so excellent had been his work, he was elected a full member, by unanimous choice of the Academy itself.

Lawrence was now not only a very successful portrait-painter but a very popular young man, to whom the doors of the most illustrious houses in London were opened, as much because of his graces of person and courtly manners as because

of the last stories told of him, indeed, although of a small matter, illustrates his unvarying thoughtfulness for others:

"I sat opposite to him at the table," says Washtington Irving, in referring to a dinner at Sir Robert Peel's. "He seemed uneasy and restless; his eyes were wandering; he was pale as marble; the stamp of death seemed on him. He told me he felt ill, but he wished to bear himself up in the presence of those whom he so much esteemed as his entertainers."

A few days later, on January 7th, 1830, he died. He was buried in the artists' corner of St. Paul's Cathedral, the Earl of Aberdeen and Sir Robert Peel being two of his pall-bearers.

According to many critics, Sir Thomas Lawrence comes second to Sir Joshua Reynolds among the portrait-painters of Great Britain.

Some Old Time Echoes.

NO. VII.

On Trek in the Transvaal.

WE MEET MORE GOOD SAMARITANS.

June 16th, 1875.—Another cold, dull day. The mountain opposite, patched all over with snow, gives quite a Canadian aspect to the view from our window. So, dear old Canada, we think and speak of you this morning. . . . Mr. Clarke has just come in, bringing with him, to call upon us, Sir Morrison Barlow, an English baronet, who has a large property and fine farm in the Orange Free State, and who, happening to be in Harrisburgh, from which he lives some two days' journey off, has been weather-bound like ourselves. He means to start to-morrow, for he has a very light trap, and four horses, all eager to face homeward, so they will pull gladly through drifts and spruits, which our obstinate beasts would be safe to balk at. He says we would be mad to venture until we have given the sun and wind a day or two longer to dry up the boggy places, which we with our heavier vehicle cannot possibly avoid. Sir M.'s hearty, cheery manner and kind greeting acted like a restorative, and his thoughtful offer of help and hospitality should we need it later on, as indeed we did, when we passed near his place, drove away the dismal, and replaced resignation with hope. He and Mr. Clarke mapped out our route clearly, Mr. Clarke promising to escort us safely over the first bad "drift" we must go through not far from Harrisburgh, and Sir M. promising to secure for us the good offices of a certain Dutchman, Placide by name, not given to help strangers, but who would do so when thus requested. Should our horses again fail us we might, thus introduced, count upon Placide's oxen to pull us through Satin Spruit (suggestive name), at the foot of his farm.

We were to have left Harrisburgh two days ago, but on the morning of the 14th, after we had arranged our packages in their usual condensed form, John came with the announcement, "Four of the horses must be shod, sir!"

Seeing that it costs 17s. 6d., i.e., four dollars and thirty-seven to get each horse shod, and moreover, that the blacksmith is sure to take a very leisurely time for the process, to say nothing of the lengthening of the already very heavy hotel bill, it is not to be wondered at that we were keenly disappointed. Meanwhile the hope is held out to us of the possibility of obtaining oxen to replace our skittish steeds, when we are fortunate enough to reach Sir Morrison Barlow's farm, he in the meantime promising to enquire about a possible exchange of animals amongst the Dutch settlers with whom he was on sufficiently friendly terms to make a proposition which would assuredly be met with by denial if it came from ourselves without the diplomatic intervention of one who has lived long enough in their midst for his nationality to be almost forgiven him.

The story of the next few days would take up too much space to be given in detail—but it records instances of most helpful kindness, all hands over and over again to the rescue, until we arrived weary but with renewed hope at

LEON KOPJE, OR LION MOUNTAIN.

As we neared the Ranch, we were met by Mr. Crayneau, Sir Morrison's bailiff, factotum, right-hand or lieutenant, but indeed it is difficult to define what he is to his chief, and more difficult still to discover what he is not! To us, he proved another good Samaritan indeed, and I can only say that no name is too good for him.

The first bit of good news Mr. Crayneau brought us after conveying the message telling of the welcome awaiting us, was that Sir Morrison had already secured for us a small span of trained and "salted" oxen, i.e., acclimatized and inoculated, at a fair price to take us to the Transvaal.

I may just as well note right here the very serious drawbacks to travelling in South Africa, one which is probably much modified under the more civilized conditions of nowadays, and that is, the effect of climate and disease upon animals. Natal oxen or horses could not live in the Transvaal, and vice versa, although those of the Orange Free State had a better chance of surviving in the Transvaal. Ours did, at any rate, lasting with one exception until we reached Natal the following March.

Our welcome at Leon Kopje must ever remain as one of the pleasantest memories of my life. It was a veritable City of Refuge. A calm after a storm. By Sir Morrison's instructions our wagon was



Portrait of Mrs. Siddons, the Famous Actress.

From a painting by Sir T. Lawrence, P.R.A.

of his fame. Even until old age, it was said, he was "assailed by ladies," but, although he fell in love with both of Mrs. Siddons' daughters, and was for a time engaged to one of them, he never married. Both of the young ladies, who were very delicate, died, the one, it was said, for love of him, the other, to whom he had been engaged being so affected by her sister's death that she quickly followed. The mother, whose portrait he had painted, would never afterwards consent to see him.

He was, indeed, dangerously fascinating. "His character," a lady of his acquaintance wrote of him, "was beautiful and much to be loved; his manners were likely to mislead without his intending it. He could not write a common answer to a dinner invitation, without its assuming the tone of a billet-doux; the very commonest conver-

of the last stories told of him, indeed, although of a small matter, illustrates his unvarying thoughtfulness for others:

"I sat opposite to him at the table," says Washtington Irving, in referring to a dinner at Sir Robert Peel's. "He seemed uneasy and restless; his eyes were wandering; he was pale as marble; the stamp of death seemed on him. He told me he felt ill, but he wished to bear himself up in the presence of those whom he so much esteemed as his entertainers."

A few days later, on January 7th, 1830, he died. He was buried in the artists' corner of St. Paul's Cathedral, the Earl of Aberdeen and Sir Robert Peel being two of his pall-bearers.

According to many critics, Sir Thomas Lawrence comes second to Sir Joshua Reynolds among the portrait-painters of Great Britain.

drawn up in front of a new house he was building, not yet sufficiently complete for occupation.

We were not the only wayfarers thus received under his hospitable roof, for already a retired military officer with his wife and little ones, who, like ourselves, had come to grief by the way, had found quarters in one room, whilst we were assigned to another, Mr. G. being offered a shake-down elsewhere.

"I'll do the best I can for you," said our host, as he laughingly helped to make us as comfortable as circumstances permitted. Up went an iron bedstead, down went some skins upon the mud floor, planks cost £1 a piece, so here they rank as amongst the luxuries of life. "You must make shift with your own cushions and rugs by way of bedding—but I can spare you a candlestick!"—this was said somewhat triumphantly as the necks of bottles and such like usually serve their turn in the wilds of South Africa.

An inverted bucket provided us with a seat, and our mackintosh bath and folding basin each served its own comforting purpose.

After our last night's shivering and cramp how nice to have a roof over our heads, space to wash in (I had never numbered that amongst my mercies before!), and a bedstead to lie upon, to say nothing of a comfortable meal without needing to give a thought to its preparation, or of the warm welcome which was its best sauce.

Soon after daylight the top-half of our door was opened and a black paw hands us in our morning coffee. "Tink-tink-tink-a-tink" are the sounds which come in with it from outside. Sir Morrison is himself tinkering away at our poor old wagon, lying at full length under it, at work like any son of the soil, and as the hammer falls, its regular stroke and sonorous sound shows that it is at no play-work either. Sir Morrison had burnt up his last precious bit of packing-case to give us a cheering blaze to warm us last night, the fuel of the country, the "drift" upon which we should have to depend for some time to come, being too damp and soddened by the late rains to be available for the purpose.

The 22nd was the morning of our reluctant departure from Leon Kopje. Breakfast over, a couple of fowls, retrieved for us by Sir Morrison's big dog (such a magnificent fellow), some potatoes, some flour, one loaf and half a sheep vidualled us royally for some days to come.

"Your traps are ready," said our host, "and I think the wagon is good for as far as Pretoria."

Up came our six fine oxen. John learnt off their names rapidly—Colbert, Potbert, Uppermann, Vetfort, Romann, Vedermann. Not to know the names of your oxen would render driving them almost impossible. Each animal responds to its own name, and to the word of command, going to the right or to the left at the bidding of its driver, its only other guidance being the touch upon its flanks of the long whip, reins being no part of the equipment at all.

As I watched the steady pad, pad of our oxen, with their intelligent comprehension of their driver's orders, it was with a very real sense of thankfulness that, come what may in the shape of road obstacles, these strong, clever big things, would go steadily at their work and "slow but sure" might be relied upon as our motto henceforth.

JOHN KILLS A BUCK.

"Look at that cloud of birds," cried one of us at early dawn on the 23rd. "They're vultures," explained John; "there's a wounded buck for sure; if he was dead they'd have pitched upon his carcass instead of hovering about him as they're doing." Throwing the long whip upon the ground, ordering a halt and bidding Jim mind the oxen, John, seizing his huge clasp knife, bounded to the ground and like an arrow from the bow was off to the spot where the poor helpless creature lay with broken leg and gaping wound awaiting a more cruel fate than befell him by means of the one blow of our driver's weapon.

John reached us dragging the dead buck with him. The men ate voraciously of the venison, cutting the meat into strips and drying a very large portion of it in the sun for later consumption. I need not say that we infinitely preferred our mutton, of which we could now have a larger share. This night was very cold, although by day the sun had scorched us terribly. We camped by the Vaal river, which is really an affluent of the Orange river, and the boundary pass between the Free State and the Transvaal.

On the morrow we found ourselves in the Transvaal at last, although many a weary mile from our destination. H. A. B.

(To be continued.)

The Windrow.

In the Isle of Man every woman, widow or spinster, whether she be owner, occupier, or lodger, enjoys the Parliamentary franchise. Every widow enjoys half of her husband's personal estate, and she cannot be deprived of this by will. The sale of cigarettes and intoxicants to children was forbidden in Man for years before such a prohibition was enforced elsewhere. The highest interest that can be charged for a loan in the island is six per cent., and that has been the law for over 200 years.

Miss Jean Addams, of "Hull House," who at

the Convention of the National Progressive Party in Chicago, seconded the nomination of Col. Roosevelt for a third term as President of the United States, is the Miss Addams who has for so long been associated with "settlement work" in the slums of that city. Her speech in seconding the nomination has been described by most of the newspaper correspondents present, as the most noteworthy address given at the convention.



Miss Jane Addams.

[The noted social worker, of Chicago, who seconded the nomination of Colonel Roosevelt for a third term as President of the United States, at the recent National Progressive Convention.]

The Panama Canal is now five-sixths finished. Not later than January, 1914, it will be ready for the passage of merchant shipping. On the day of the opening, says Emory Johnson, Special Commissioner on Panama Traffic, "a fleet of men-of-war, representing the navies of the world, will pass in imposing procession from Christobal to Balboa, followed by another equally large fleet composed of assembled passenger and freight vessels flying the flags of all maritime nations. Thus will stately ceremony mark the final achievement of the hope of centuries." The total amount required for the construction of the Canal is \$375,000,000.

"Every Atlantic and Gulf port," says N. Y. Independent, "is to-day enforcing strict precautions against the spread of the bubonic plague into this country." Nearly all the cities on the Atlantic Coast of the United States have been ordered to urge the destruction of rats, mice, squirrels and fleas—the most common means of spreading the disease. Should we, in Canada, not help in the work by exterminating the rodents on our own premises? There has been a remarkable increase in the number of rats and mice in many parts of the Provinces during the past two years, and should the bubonic plague, "the Black Plague," once gain ingress it would, without doubt, spread with incredible rapidity, as it has done in the Old World at many times in its history. Precautions cannot be taken too soon.

Hope's Quiet Hour.

Excuse-Making.

They all with one consent began to make excuse.—S. Luke xiv.: 18.

How well our Lord understands the ways of men. We have high ideals, but are very quick to make excuses for ourselves when we have done wrong or when we want to shirk some plain duty. Once, when our Lord was eating a Sabbath-day meal in the house of a rich man, one of the guests said: "Blessed is he that shall eat bread in the kingdom of God." Perhaps he was quite sincere in his professed admiration for things religious, perhaps he was—almost unconsciously—trying to say something which the company at the table would approve. But He Who knew the human heart answered with the story of the great supper, where all the invited guests—who had evidently sent no refusal when first invited to the feast—began at once

to manufacture excuses when they received the summons: "Come; for all things are now ready." They did not openly say that they were not interested in the good things provided for them, but each one explained with careful politeness that it was impossible for him to leave his property, his work, or his home just then. God provides exactly what our weak and hungry souls need—but we must go to Him when He invites us to meet Him in His House. We need courage and strength to meet everyday difficulties and temptations, we need the Love of God to fill our hearts with joy in the darkness, we need the Life of Christ within us, so that we may grow more like Him, and so that men may see something of His beauty of holiness in our faces and our lives. The door is open, day after day we are invited to enter the open Treasury and come out with our arms full of the best gifts for ourselves and those we love. Week after week we are invited to be fed by God Himself with the Living Bread. We do not refuse the invitations so freely given. We know that earthly pursuits are unsatisfying, and that God above can pour life and joy into our souls; but we are so busy that prayers and church-going are crowded into odd corners. Even if our bodies are forced by a strong sense of duty into the attitude of prayer, our hearts are too often wandering off after the work or pleasure we have unwillingly interrupted for a short time. Even when Christ offers Himself to us, in the holiest feast on earth, distractions too often come between so that we only catch a glimpse of His face. We make plenty of excuses for ourselves, as though God were asking a favor of us, when He is longing to fill our tired and hungry hearts with lasting strength and sweetness.

Do you remember the beautiful legend of the monk who was praying in his room when he saw the Vision of Christ beside him? The bell called him to go out and attend to his daily duty of feeding the poor, and he unwillingly turned his back on his Guest because he felt that a God-given duty must take first place. But he desired no excuse for escaping the interview with his loved Master. Back he hurried, at the very first opportunity, and enjoyed its sweetness with a clear conscience. When we kneel before our Lord, at home or in church, He is really close beside us; but too often we hurry through our prayers, making the excuse that there is so much to do, and not really caring for His disappointment and for our own great loss.

Then there is another kind of excuse-making which we are usually very good at—making excuses for our own sins. This is a tendency very deeply rooted in our race. Adam knew he had done wrong when he disobeyed a plain command of God, but he said not one word about his own sin, and threw all the blame on Eve. It is an instinct with us to try to cover up our sins, but it is a poor way of curing them. If we confess our sins, God is faithful and just to forgive us our sins; but, if we refuse to own that we have done wrong, His forgiveness would only make us comfortable in wrong-doing, and would harm instead of helping us.

There is a story told of a city down South which had a most disreputable row of houses. Dirt and squalor reigned unheeded for years; but the President of the United States was about to pass that way, and it was felt that something must be done to prepare for him. Did the "committee on arrangements" clean up this "festering nest of squalor?" Not at all. A fence was swiftly built to hide all unsightliness from the distinguished visitor; and things were made far worse than before, because the filthy shacks were no longer an eyesore, pleading for improvement from every passer-by.

Sometimes a soul acts like that. There is some ugly, deliberate sin, which is slowly but surely poisoning the whole life. Instead of bringing it to the Good Physician, asking Him for cure, and then faithfully taking the remedies He prescribes, a sense of reserve is maintained about the matter. Other sins are frankly confessed, but this one is a shame and disgrace—and, besides, the sinner does not want to give it up. He would like to be rid of the misery of the secret sin, but does not care enough about the cure to go through all the

pain and difficulty which must be faced and endured. It is so easy to make excuses, to refuse even to look honestly at the ugly, festering spot. A man has told a lie which is an injury to someone else. He hates lying, and has a reputation as a truthful person to maintain, so he makes his very truthfulness an excuse for refusing to right the wrong. The matter cannot be set right without lowering him in the respect of his neighbors. So he builds a fence in front of the living lie and does his best to forget it himself. Yet it is not cured, it is a festering wound which makes him weak in his efforts after holiness. He dares not kneel at the feet of Christ and place himself unreservedly at His disposal. He knows that if the order should be given to right the wrong—to the best of his ability—he is not prepared to obey orders. The sin cannot be forgiven until it is repented of—and confessed—confessed to God, and, if necessary, to man. The manufactured excuses would look very poor if held up to God and told out before Him in plain words, therefore they are held in reserve, and the secret sin is not mentioned when the daily prayers are said. The publican in the parable was justified because he frankly acknowledged his sins. The thief on the cross publicly owned that his dreadful punishment was justly deserved. These men offered no excuses, but they did not—like some hardened sinners—defiantly and without shame, acknowledge their sins. The sinner who was ashamed to raise his eyes to heaven, lifted his heart there, and the Lord drew near to the humble one, as St. Augustine says.

Let us throw away our excuses, which build barriers between our sick souls and the Good Physician, and tell Him without any attempt at justification the sin which we have tried to forget. Conscience is too faithful to allow us to forget, though we may hide it for a time under the threshold of consciousness. A man who once had the terrible experience of lying in a hollow between the rails while a train ran overhead, said that his past life was present to his memory with wonderful distinctness during those awful minutes. Things which had been apparently forgotten for years, were as vivid as if they had only lately happened. Memory is like a huge storeroom. Thoughts and acts of long ago are packed there, and may come to the light any day, with or without our consent. We can't forget by trying, and probably we never really forget anything. It is wise to throw open to the Master of our souls the door of that storeroom, and deal as He shall advise with all the secrets stored there. No wrong done to another can be really forgiven—the dark spot washed out in the Fountain God has provided for sin and uncleanness—until all possible steps have been earnestly and honestly taken to right the wrong. Confession to God—Who already knows the sin—may not be nearly as difficult as confession to the wronged brother. But, if the latter is a straight duty, it must be faced; otherwise the sinner dare not ask repentantly for God's pardon.

Too many lives are wrecked or desperately weakened by an old sin which has never been honestly shown to the Good Physician. Those who treat an earthly physician so insincerely can hardly gain much help from his skill. When a cancer is destroying the body, it is not hidden from one who may be able to cure it, why do we care less about diseases of the soul? The body will decay in a few years, anyway, but the soul must go on living—can we endure to be diseased in soul, and only make excuses to try to hide our condition from Him Who still has power on earth to forgive sins?

"Man looketh on the outward appearance, but the LORD looketh on the heart." Outward respectability is worth little in His eyes, if it is only a fence put up to hide foulness from sight. No fence is thick enough or high enough, no untrue excuses are plausible enough to shelter us from the gaze of our Divine Lover. He loves us too well to let us be comfortable in secret sinning, or escape wholesome correction.

"That punishment's the best to bear, That follows soonest on the sin; And guilt's a game where losers fare Better than those who seem to win." DORA FARNCOMB.

The Beaver Circle.

OUR SENIOR BEAVERS.

[For all pupils from Senior Third to Continuation Classes, inclusive.]

Bringing Autumn In.

By Annie Willis McCullough.
 Grandma's paring apples,
 Sign that's full of cheer;
 Summer's nearly over,
 Autumn's nearly here.
 Cozy evenings coming,
 Mornings brisk and cool;
 Long vacations ended,
 Busy times at school.

Grandma's paring apples,
 Some of them she dries,
 Some make sauce and puddings,
 Some make spicy pies.
 Pantry smells delicious,
 Pockets bulge out wide;
 Children with their baskets
 Roam the orchard-side.

Grandma's paring apples,
 Nicest time o' year;
 Firelight and lamplight
 Fill the house with cheer.
 Odors sweet in cellar,
 Rosy fruit in bin;
 Grandma, paring apples,
 Brings the autumn in!

The Wild Flower Competition.

Dear Beavers,—You will probably be anxious to know who the prizewinners in the last competition are, so here is the list, right at first:

Prizewinners.—Frank Justin, Lisgar, Peel Co., Ont., whose drawings were very good, and whose composition was the most interesting one sent in; Myrtle McLaughlin, Chesley, Bruce Co., Ont., whose descriptions of the plants were very good, and whose drawings were the best sent in; Amy Seburn, Longwood, Middlesex Co., Ont., and Ethelbert Reive, Kingsville, Essex Co., Ont.

An extra award was given to little Eva Deshaw (age 11), Duart, Kent Co., Ont.

Honor Roll.—Alhretta Calvert, Winnifred Colwell, Ariel Moore, Ethel Caisley, Russell Salter, Elizabeth Landrigan, Audrey Kelly, Irene Getty, Helen Scott, Hugh McPherson, Marjorie Scull, a Beaver from Walker's who forgot to sign name, another who forgot to give either name or post office.

Among these were several who came very near to getting prizes. The work of Alhretta Calvert, Ariel Moore, and Elizabeth Landrigan, was almost good enough.—By the way, Elizabeth used both sides of the paper. Only one side must be written upon when the work is intended for the printing press.—Winnifred Colwell's descriptions were excellent, but her drawings were lacking; Hugh McPherson's drawings were very fine, but his descriptions were scarcely full enough; Russell Salter wrote very good descriptions, but included bloodroot among the flowers chosen, whereas the choice was to be confined to flowers found in bloom during July and August.

Now for the work itself: The list of flowers drawn and described was a long one, including ox-eye daisy, milkweed, foxtail, chamomile, yellow water lily, red Canada lilies, tansy, mayweed, heartweed, white musk mallow, round-leaved mallow, bouncing Bet, black-eyed Susans or cone-flowers, ragweed, night-flowering catchfly, buttercup, wild peppergrass, golden rod, wild rose, yarrow (one little girl called it "marrow"), red clover, fall dandelion, butter-and-eggs, wild mustard, plantain, and sow thistle.

A few garden flowers were also included—sweet peas, yellow marigold, sweet William, and tiger lilies. We had really meant that wild flowers only were to be taken, but as we forgot to say so, these letters were considered with the rest.

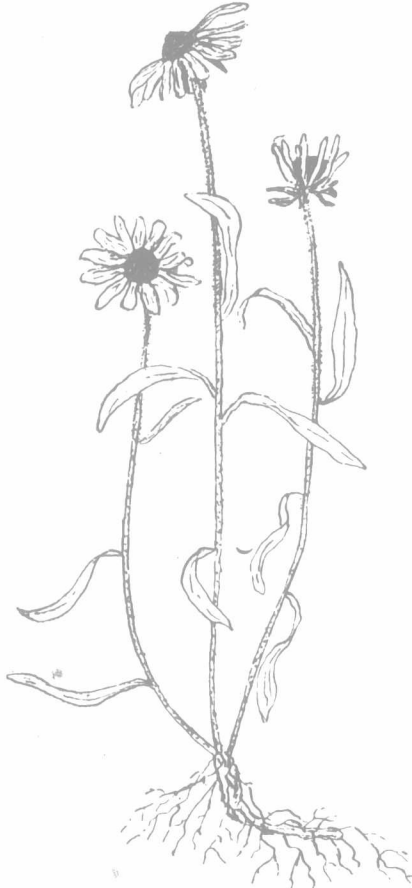
By the way, I was much interested in the drawing of a "milkweed" sent by Marjorie Scull, which appears to be quite different from any milkweed that I have ever seen. I wish she would send me a plant of it when it is in bloom next year.

We are only going to publish parts of the most of the letters to-day, as there

are so many letters to quote from. Bits of some of the Honor Roll letters are given, as well as selections from those of prizewinners.

OX-EYE DAISY—CONE FLOWER—BUTTERCUP.

Dear Puck,—I tried the last competition in "The Farmer's Advocate," but only got in the Honor Roll, which is better than nothing. I live on a farm, and we have, as nearly every farmer has, weeds and wild flowers.



Cone Flower, or Black-eyed Susans.
(Drawn by Myrtle McLaughlin.)

The first flower I am going to describe is the ox-eye daisy. This is its common name, but it is also known as the white daisy, white weed, or poverty weed. The botanical name is *Chrysanthemum leucanthemum*. It has short, strong roots, from which branch out several stems. As you walk through a meadow or pasture, you will see the white heads of the flowers nodding gaily



Cone Flower.
(Drawn by Amy Seburn.)

in a summer breeze. The flower has a large number of rays, which are pure white. The flowers are from one to two inches across, in the shape of a saucer, with the white rays arched around a little yellow disk. The seed is angled, with alternate black and white, which can be seen with the aid of a microscope. The stem is from ten inches to nearly three feet high, and on it there

are a few leaves, which you can pull off easily. They are toothed, rather narrow, and are also long.

One day as I was walking through a pasture I came across some yellow flowers. They are called cone flowers, or black-eyed Susan. *Rudbeckia hirta* is the botanical name. I have also seen the plant in meadows. The flower is made up of about fifteen yellow rays growing around a small, brownish (with a little touch of purple) disk. The stem is nearly two feet long, and bears a number of hairy leaves. These leaves are hairy, thick, and oblong, and taper towards the end. The root is fibrous, and spreads out like that of a pine tree. The seeds are a dark brown color.

As you go out for a walk to gather wild flowers while you are visiting your country cousin, you will very likely find for your bouquet some buttercups, or *Ranunculus acris*. It grows in pastures, but cattle will never eat it. The roots are of a fibrous nature, and are rather hard to pull out. If you examine the leaves, you will find that they resemble those of the bloodroot a little, as they appear to be divided into parts. The stems are from two to two and a half feet high, and somewhat hairy. The flowers consist of five yellow petals. You will find them blooming from June till frost.



Mayweed, or Stinkweed.
(The name of the Beaver who drew this was, unfortunately, lost.)

Well, Puck and Beavers, I must close, wishing the Beaver Circle every success.
 FRANK J. JUSTIN,
 Lisgar, Ont.

BOUNCING BET, MUSK MALLOW, BLACK-EYED SUSANS.

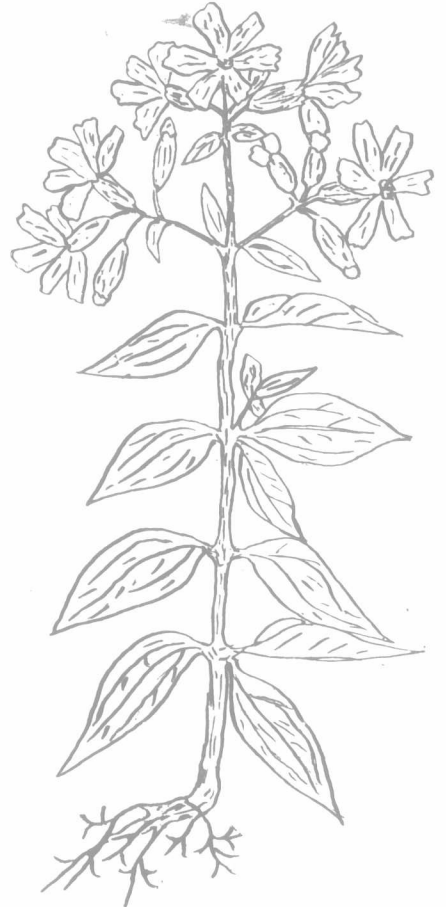
Dear Puck,—I am sending you the drawings of three weeds that bloom in July and August,—bouncing Bet, white musk, and black-eyed Susans.

Bouncing Bet is a very bad weed to spread. It will grow in any kind of soil. The blossoms are a pinkish-white, some tinged with purple. When it was first seen around here it was in flower-beds, on people's lawns, but it was soon found out it would spread and they started to pull it out, but when the roots get a start in the earth it is very hard to get it completely killed.

White musk grows in the orchards and roads, or anywhere the sod is seldom broken up. There are two colors, white and pink, and they are very pretty. The leaves are prettily cut, and the flower is quite large. The stems are downy, and it has a sweet smell. The musk grows in bunches, but is not a bad weed.

Black-eyed Susans are very pretty. They have bright yellow rays, with brownish-black centers, from which they derive their name. They may be found in orchards or hay meadows. They also prefer sod, growing in rich soil to a height of two or three feet, and in small clusters. They are species of the daisy, but not nearly so bad to spread. I remain,
 AMY SEBURN,
 Longwood, Ont.

YELLOW WATER LILY.
(Part of Winnifred Colwell's letter.)



Bouncing Bet.
(Drawn by Amy Seburn.)

Yellow water lily, spatter dock (*Nuphar lutea*), belonging to the order Nymphaeaceae. Nuphar is said to be derived from the Arabic word *nufar*, signifying pond lily.) Found growing in extensive beds, often mingled with the white water lily. The sepals are sometimes finely clouded with red on the outer side, but are of a deep orange-yellow on the inner side. The petals and stamens are also of a deep orange-



Foxtail.
(Drawn by Myrtle McLaughlin. This drawing did not reproduce well. The original was very much better.)

yellow color. The stigma is flat. The leaves are dark green in color, slightly smaller than those of the white lily, and more elongated, and are borne on thick, fleshy stalks, flattened on the inner side rounded on the outer side.

During July and August, this plant is found in rivers, ponds, marshes, etc.

"And there the bright Nymphæa loves to lave,
And spreads her golden orbs along the dimpling wave."

Before I close I wish to thank you, Puck, for my prize in the last competition. I have not read it all yet, as I only received it yesterday, but I am well pleased with what I have read. I wish to thank you also for my other two prizes I received for other compositions. With best wishes and many thanks.
WINIFRED COLWELL.
Brookville, St. John Co., N. B.

NIGHT-FLOWERING CATCHFLY.
(Part of Helen Scott's letter.)

The night-flowering catchfly is an unattractive flower. It closes up its petals in the daytime, but at night, if you happen to see it, you say, "Oh! what a pretty flower!" It grows to the height of two or three feet. The color is white, and it has five small petals. The stem is branched, and the leaves are opposite each other. The calyx is large and the teeth short. The plant is covered with sticky hairs. It usually grows at the edge of a swampy piece of ground. It belongs to the pink family. They flower in July. I found the one I drew under a willow tree.

BUTTER-AND-EGGS.

(Part of Alhretta Calvert's letter.)
Butter and eggs is a flower that blooms from July until October. It is found along fences, by the road, and on waste land.

The top lip of the flower is pale yellow, while the bottom one is also yellow, with some orange on it. The orange part is covered with a soft, yellow plush.

Inside the flower's mouth is a pale yellow pistil, surrounded by four pale yellow stamens (two tall ones and two short ones), which have a little brown knob on the top.

At the bottom end of the corolla is a short yellow tail, shaped something like a horn.

Under the corolla is a calyx of five small, pale green, pointed sepals, which are all fastened together onto a small, tender stem. This small stem is fastened onto the main stem at the top of the flower.

The main stem is small, and of a brown color. It is very smooth and tough. It grows from six inches to two and one-half feet high.

The leaves are long and narrow, with a strong vein up the center. They are very much like blades of grass. They fasten on to the stem about one-quarter of an inch apart until they get within about six inches of the ground, and there they cease.

The root is white, and very hard to break. It grows from two to six inches long, and is thickly covered with little fibres.

OUR JUNIOR BEAVERS.

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

The Middle Child.

By Ethel M. Kelly.

Whenever there is company
And mother sends for us,
It's always 'bout the baby that
They make the biggest fuss.
They say, "She's sweet as she can be!"
"Her hair, just see it curl!"
They never say such things to me,
'Cause I'm the middle girl.

And then they say to sister, "Why,
Is this the oldest child?
She'll be a woman by and bye!"
And after they have smiled
And held her hand, they look at me.
Mamma says, "She's begun
To lose her teeth," and then they laugh—
'Cause I'm the middle one!

Then baby speaks her little piece,
And sister's asked to sing;
But no one ever seems to guess
That I do anything.
Although my name is Marguerite,—
And Marguerite means "pearl,"
Nobody thinks that I'm sweet,
'Cause I'm the middle girl.

When I grow up, and when I have
A family of my own,
I'll send up for the middle girl
To come down-stairs alone;
And I shall let her speak and sing
And have a lot of fun,
I'll not deny her anything
'Cause she's the middle one!

Junior Beavers' Letter Box.

Dear Beavers,—I have read so many of your letters in "The Farmer's Advocate" that I thought I would write, too. We have a 200-acre farm, and have a lot of cows and sheep, and six horses. We call our farm The Maples. My little brother Cecil and I were riding on a load of hay with father and the load upset and buried us all. We all got out ourselves but Cecil. Father and Billy soon got him out. I tell you, he was scared, and so was I.
TOM McFADDIN (age 9, Jr. II).
Millbank, Ont.

Dear Puck and Beavers,—I live on a farm one mile from Millbank. I go to school with my brothers, Tom and Cecil. We have the very nicest teacher scholars could have; her name is Miss McKee. We have a garden at the school, and also some pretty plants in the windows.
MARGARET McFADDIN
(Age 9, Jr. II. Class).
Millbank, Ont.

Dear Puck and Beavers.—Another little Beaver has come to join your interesting Circle. I live in Preston, but I spent my holidays at my uncle's near Rockwood. My father has been taking "The Farmer's Advocate" for nearly a year. I like reading the letters in it. I would like to join your Circle. I will close, hoping my letter will escape the w.-p. b. I wish the Circle every success.
LILLIAN HOLTZHAUER
Preston, Ont. (Age 10, Jr. III).

Dear Puck and Beavers,—I have been intending to write to your Circle for a long time, but have felt a little shy, but at last picked up courage and shall write you a few lines. I always enjoy reading the Beaver Circle letters, and make it a weekly pleasure, as my papa has taken the paper as long as I can remember. I have one sister and three brothers younger than myself. We live on a farm about a mile west of Warwick village. I have a dog and two kittens for pets. I call the kittens Jack and Jill, and the dog Tiny. The dog goes after the cows night and morning, and is always faithful to his work. The kittens know many tricks, too numerous to mention. Well, I think I will close, as my letter is becoming rather lengthy. Wishing the Circle every success, I remain your young friend,
MINA WILKINSON (age 10, Jr. III).
Warwick, Ont.

Dear Puck and Beavers,—This is my first letter to the Beaver Circle. My daddy takes "The Farmer's Advocate." I am only a little girl eight years of age. I go to school every day. I have one sister and two brothers. Now I must close and say good-bye.
S. GATES.

Dear Puck and Beavers,—I thought I would send you just a few lines. My father has taken "The Farmer's Advocate" for a number of years. I enjoy reading the letters when there are any in. I have one brother. I go to school every day. I have a mile and a quarter to go. My teacher's name is Miss N. Corman. I am afraid my letter will be too long, so I guess I will say good-bye.
CHRISTIAN PACK
London, Ont. (Age 8, Sr. II).

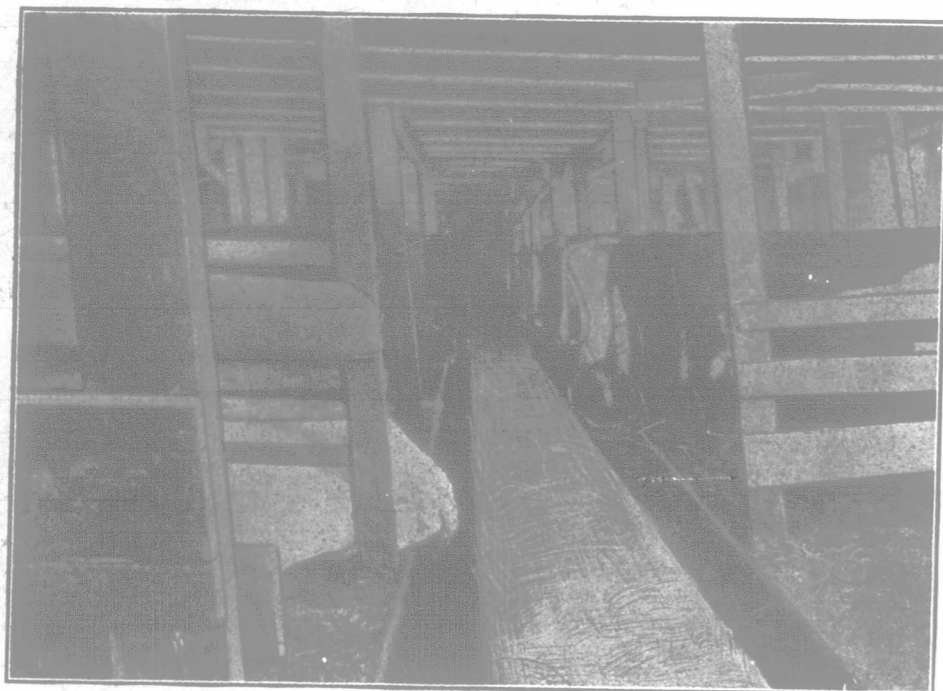
Dear Puck,—Daddy has taken your paper longer than I can remember, about sixteen years, and likes it fine. I started to school the last week of last September, and went nearly every day last winter. My teacher promoted me to the Second Book before school closed, and mamma got me a big doll because I had my lessons well learned at school. My doll is a beauty, with real eye-lashes and long, curly hair, and is 25 inches tall. I call her Leona. I have one little brother and a little sister. I'll tell you about them next time I write, as I am



An Autumn Sunset.

YOU PAY OUT THE COST OF GOOD EQUIPMENT EVERY YEAR—WHY NOT HAVE IT?

Do You See This Stable? It Costs Big Money to Winter Cows in a Stable Like This



What About the BT. Steel Stable Equipment? Will It Better Conditions?

It allows the bright sunlight to flood every part of the building. There are no dark, damp, corners. Sunlight is the best disinfectant in the world. It destroys the disease germs.

With Steel Stalls the stable is easily ventilated, their open construction permitting a free circulation of fresh air. Consider what an advantage it is to the health of the stock to have a bright, well-ventilated stable.

The Steel Stalls and concrete floors do not soak up the manure. They afford no breeding places for disease germs. Thus, by using Steel Equipment the dairy cows can be kept free from disease and in the very best condition for milk production.

BT Stall Equipment lines up the long and short cows, so that all droppings fall right into the gutter, and the cattle-stand remains clean. All manure is in the gutter and very little time is required to clean the stable.

Steel partitions protect the cow. They allow her to get in and out of the stall easily and yet prevent her being trampled on by her neighbor.

The Price is not Too High—Mr. Farmer, Mr. Dairyman, it comes right down to a matter of dollars and cents. Fit your stable with BT Steel Stalls, not only because they make it bright and attractive, but because they save for you at every turn. They save time, labor and loss of your cattle through accident and disease. They pay for themselves in a very short time.

Cows Must be Clean and Comfortable to do Well

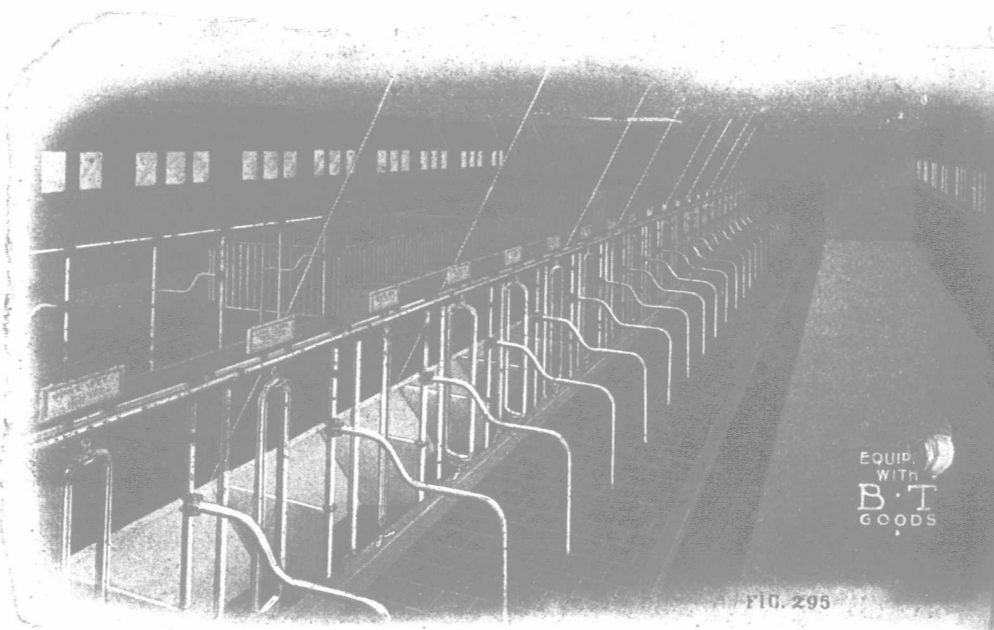
Cows kept in a dark, damp, unsanitary stable will give less milk. When the stable is not well ventilated and clean, no matter how much food is given, the cows will not do well.

In a wood fitted-stable the cows are constantly exposed to disease. The wood stalls and wood floors become saturated with manure, and give off injurious fumes that greatly impair the health of the stock. And in the dark damp places, tubercular germs grow and thrive. The loss of a cow through disease in a single season would pay for a dozen Sanitary Steel Stalls.

Wood stables are hard to keep clean. Their chain ties or rigid wood stanchions do not keep the cows lined up to the gutter and the droppings fall on the cattle stand. The extra labor required to keep the stable clean is no small item.

Wood stalls do not protect the cows. It often happens that, when cows are tied with chains and with no partitions between, one cow steps on the udder of another and ruins her.

An old wood stable costs you—in extra time and trouble in keeping the stable clean, in extra outlay for hired help, in loss of your cattle through accident and disease and in lowering the value of their production—more, every year, than you would pay for Sanitary Steel Stalls.



Is This Your Hired Man?

He Spends Hours Every Day Handling the Manure, and Yet has a Filthy Barnyard



The BT Litter Carrier Outfit Pays its Own Cost in a Single Winter in the Saving it Makes for You.

It Saves Labor.—With a BT Litter Carrier you can run out HALF A TON of manure at a time. A few big loads like that will clean your stable. You can do all your stable work yourself in a few minutes. You don't need to hire a man. What you save in wages the first winter through using a BT Litter Carrier will pay its cost.

It Saves Rehandling the Manure.—You can run out the carrier on its overhead track and dump the load into the wagon. The manure can then be hauled straight to the field. There is no waste of time in cleaning up manure in the yard every few weeks and loading it on a wagon.

It Keeps the Stable Yard Clean.—The BT Litter Carrier can be run out with its load far from the barn. No manure is dropped in the passage way or in the yard. The cows do not have to wade through piles of litter to get to their stalls. They are always kept clean and their milk is pure.

Think What it Costs You in Labor to Handle the Manure by the Pitchfork-Wheelbarrow Method

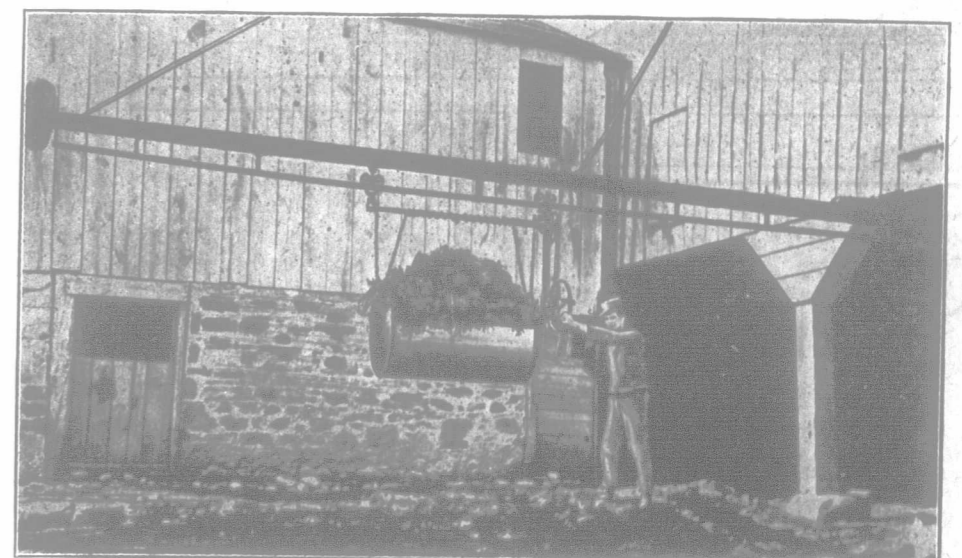
It takes hours of a man's time every day to clean out the stable by the old method. Mr. George Eldridge, of Woodstock, writes us that the winter before last he spent the whole of every morning cleaning out his stable with a wheelbarrow. As he said himself afterward, he was practically wasting half the day. But that was not all. With the wheelbarrow he only got the manure as far as the door, and in the spring he had to pay a man \$2 a day for two weeks to haul it to the field.

You Waste the Manure by Handling it in the Old Way

Manure that is allowed to stand in a pile over winter loses 50% of its fertilizing value, through fire-fanging and bleaching. It even loses in actual weight. Manure that would cover six acres of land will only cover four acres if allowed to stand in a pile all winter. And the liquid manure, worth \$7.00 a ton, is nearly all lost.

The Old Method is Too Costly

We have shown you two ways in which the old method of handling manure costs you actual money every day of the year. There are many other ways, but we have not room to tell you about them all in this advertisement. We want you to read on, find out how to save yourself the expense of the old method, and write us for further information.



Get Our Two Free Books—Send for our free Litter Carrier Book and our free book on Sanitary Steel Stalls. They prove beyond all doubt what we have stated above. They prove that the BT Sanitary Equipment cuts your stable work and your stable expense squarely in two. They show you how to make the work of a big dairy barn easy. **SEND FOR OUR TWO FREE BOOKS TO-DAY.**

Special Features on the BT STEEL STALLS

There are many outstanding features on which BT Stalls excel all others. The saving of feed and labor made possible by the adopting of these features will pay for the whole equipment in a year's time.

THE BT ALIGNING DEVICE—Keeps cows clean. It is the greatest improvement on Stanchions ever brought out. It lengthens or shortens the stall to suit the cow. It lines up long, short and medium cows so that all droppings fall into the gutter. This device is patented and in use only by us.

THE BT DOUBLE CURVE PARTITION—Protects the cow. Prevents her being trampled on by her neighbor, no matter what way she lies in the stall. It is superior to the single curve

partition, in that it gives the cow greater protection and permits her to turn around and walk out of her stall.

THE BT SELF-CLEANING MANGER—Saves time and trouble. It is made without a bottom—the concave trough built into the cement floor serves that purpose. The manger is easily raised, all refuse left in the smooth continuous trough swept out, and trough used for a watering.

THE BT SURE-STOP SWINGING POST—Saves time and trouble. This device provides a rigid post between the rigid arm of the stanchion and the stall partition when the cow is coming into the stall, making it impossible for her to put her head anywhere but in the stanchion. When the cow has her head in the stanchion, this post may be swung back out of the way, giving the cow perfect freedom.

THE BT STANCHION RESTS—The loose arm of the stanchion when open is held in place by a small clip on the partition. When the loose arm is thus locked open, and the swing post is in place, the cow must put her head in the stanchion. She cannot put her head through on either side.

OTHER IMPORTANT FEATURES—We would like to tell you about the many other special features of the BT Steel Stall Equipment, all of which are covered by patents and cannot be used by other firms. But we have not room here. Let us send our free Stall Book. It will cost you nothing, and you will then be able to see for yourself that what we claim for BT Equipment is true.

Fill out the coupon and we will send you this book on Stalls and also our Free Book, "How to Build a Dairy Barn."

Write to-day.



Beatty Bros.
Fergus, Ont.

FREE BARN PLAN SERVICE.

We go further than supplying sanitary equipment. We help you plan and build your barn and charge you nothing for this service. To get the best results from your cows, your barn must be properly planned, properly ventilated, and constructed up to a certain standard. Good equipment alone will not do it. We want our customers to be thoroughly satisfied with their stables wherever BT Stalls are used. For this reason we have gotten out our book, "How to Build a Dairy Barn." Fill out the coupon, and you will get it free.

Whether you are building or remodelling or just making a few changes, be sure to get this FREE book. Send us the coupon for it to-day.

THE GOVERNMENT USES BT EQUIPMENT.

Last year the Dominion Government built three Dairy Barns and the different Provincial Governments built some twenty odd Dairy Barns in different parts of Canada. In every case BT Equipment was used.

ALL THE BIG DAIRYMEN USE IT.

The following big dairymen have within the last year fitted their stables throughout with BT Equipment: S. Price & Sons, Erindale; The Toronto City Dairy Co.; The Moose Jaw City Dairy Co.; Sir Montague Allen, in his big Dairy Barn at "Allacroft" Farm, near Beaconsfield, Que.; and many others. These Dairymen used BT Equipment because it is the very best. Why should you not have the best when the cost is no more?

Mail Us This Free Coupon

BEATTY BROS., A.S. Fergus, Ont.

Gentlemen,—Please send me your free book, "How to Build a Dairy Barn," and your free books on Litter Carriers and BT Steel Stalls.

Are you going to build or remodel?.....
If so, when?.....
How many cows have you?.....
Will you need a Litter Carrier or Feed Carrier?.....
Do you want a Hay Carrier?.....
Name.....
Post Office.....
Province.....


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SPECIAL
FLOUR**

McLEOD'S
FLOUR
IS
ALWAYS
RIGHT

McLeod's "SPECIAL" is a very high grade blended flour, ground from the finest of Ontario Winter wheat. A most excellent flour for bread and pastry baking. It is a most economical and satisfactory flour for family use because it requires less shortening for pastry and requires less water for baking, and you may always have the assurance of uniformity in quality and that the highest, and that McLeod's "SPECIAL" will make every loaf of bread a loaf of satisfaction, because . . .

**McLEOD'S FLOUR
IS ALWAYS RIGHT**

The McLeod Milling Company, Limited
Stratford, Ont.



**CANADA'S
BEST; THE RAYMOND
SEWING MACHINE**

PUT UP IN
HANDSOMELY
FINISHED
GOLDEN
OAK.

EVERY
MACHINE
GUARANTEED

IT DOES
PLAIN
OR
FANCY
WORK.

SEWS
PERFECTLY
FROM THE
LIGHTEST
TO THE HEAVIEST GOODS.

Send for prices to the
Manufacturers:
**THE RAYMOND MFG. CO.
GUELPH, LIMITED, ONT.**

GIVE IT A TRIAL.



afraid you will be too busy to read any more this time, so, good-bye.

WINONA DEMPSTER
(Age 6, Book II.).

Ridgetown, Ont.

P. S.—I used to have a big doll my auntie brought me when she was in Ireland for a trip, and I called him Puck; that was what he was called in Ireland.

W. D.

Dear Puck,—I was reading a few of the Beavers' letters. I have two little kittens. Some of our chickens got drowned in that big storm last week. I have nine little ducks. I wonder if any of the Beavers passed. I passed into the Second Book. I am nine years old. I go to school one mile and a quarter; my teacher's name is Miss Paterson. I guess I will give a few riddles.

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

What is blacker than a crow? Ans.—Its feathers.

CLIFFORD RUNNALLS.

Christina, Ont.

The Ingle Nook.

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

Dear Ingle Nook Friends,—One has often heard motorists say in regard to horses frightening at automobiles, "Oh, the people, (they usually say "the farmers") are more frightened than the horses." Well, I have reason to know that, in one instance at least, this was true, and I can assure you that the mere experience of receiving a fright of this species is not altogether a pleasant one, however ludicrous it may appear afterwards.

There is nearly always an element of uncertainty in meeting an auto when driving; one can never tell just how the horse will act. No matter how comparatively accustomed to meeting motor-cars he may have become, there is no feeling sure that this time some unaccountable kink may not enter his dim intelligence, and cause him to cut capers, and so one can have little sympathy with motorists who positively seem to blame buggy-occupants for being nervous.

To be sure, the kink often manifests itself in the opposite direction, and then, unless one's bump of humor is sufficiently developed, the situation may become rather embarrassing. Upon this hangs my special tale, which seems so funny, now that the incident is past, that I must tell you.

One day, during my recent holiday, (which, you will think, I cannot get away from at all,) we "women folk" decided upon a ten-mile drive, to visit a friend. As the "good" horses were busy, we elected to take an old nag that had been left to roam about the pasture, at her own sweet will.—Yes, she might "scare" at an automobile,—she had "cut up" dreadfully on meeting a motor-cycle not long before.—But,—well, we could follow the back roads, there would not likely be automobiles there.

Off we set, paid our visit, and started off cheerily for home; all had gone 'merry as a marriage bell,' so far. But one can't congratulate one's self too early in the day in these precarious times. On the very last stretch, the very last two-mile stretch, on a hilly road that might have quieted the heart of the veriest autophobe (I haven't seen that word used, but it's a good one, isn't it?) the now unexpected happened. My mother and I were sitting quietly, looking to either side, and enjoying the peaceful scenery; we couldn't look before, for Frankie had on a big hat that obliterated the landscape in that direction. Frankie, you must know, sat on our knees, and, by reason of such point of vantage, had been constituted general lookout and starboard watch. The road was narrow, very narrow, with marsh pressing close on either hand, so that even buggies meeting at that point were accustomed to pass on the top of a small hillock immediately before, the first one to arrive waiting for the other. But it

was near home, we had reached the hill country, and our hearts were calm.

But, oh, the times, the times! Shall we ever know sweet equanimity again? —All of a sudden Frankie cried out, "There's an auto coming down the Big Hill!" and forthwith began to climb out over the wheels, in imminent danger of breaking her neck. I snatched the reins and proceeded to pull the old nag to a stop. My mother got out—somehow—and ran ahead to the top of the hillock, waving, not one, but both hands. As for me, I had one wild vision of the auto gaining momentum on the Big Hill, making a mad dash across the intervening flat, then bounding over the hillock and straight into our terrified old horse, the buggy and—myself; then, not "hankering," as the old dame in "Lena Rivers" used to say, to be an ingredient of this mix-up, I too tumbled out, and when the auto drew up on top of the hillock, quite obediently, in answer to my mother's signals of distress, the sight that met the eyes of the occupants was —Frankie and myself, at either side, leading the old nag along the road, as close to the side of it as possible.

Out got a man to help in the leading process, and—would you believe it?—that contemptible old beast never even increased her walk to a dog-trot! One mild, though somewhat suspicious glance she shot at the panting motor as she passed;—that was all. Why in the world couldn't she have kicked up just a little bit, when going by, now that danger was past? But no; the contrary kink had entered her brain. Of course the auto folk "ho!-holed," and so did we—but—whisper it—sheepishly. Why hadn't that old-beast had the grace to behave properly?

I have had some very pleasant rides in automobiles, quite enough to realize the truth of the motorists' saying "The best thing about an automobile is that when riding in it you don't get your own dust." At the same time, during my perambulations about the country this summer I could not but realize that, under present conditions, the motor-car in many rural places is an almost intolerable nuisance. It frightens horses, and, through irresponsible chauffeurs, causes other damage, even when the horses are not frightened; it picks up the very dust that the farmers have laid, with much expense in hard cash or statute labor, on the highways, and throws it back into their very faces, deluging the fields for rods on either side with dust, and choking the breathing pores of the leaves at serious injury to crops, and orchards, and flower-gardens. Indeed, so distressing has this Plague of Dust become, that people whose houses chance to be close to motor-frequented highways are obliged, no matter how hot the weather, to keep doors and windows shut continually, at serious loss to health and comfort. Then, too, the continual raising of the dust and throwing it over on to the farms, means a continual wearing down of the roads to bare bones, or would mean that, were it not for the annual repairs which the farmers put upon them. All this, and yet the motorists have paid nothing towards the building of the roads, and pay, as yet, practically nothing towards their up-keep!

Surely some better system can be devised. Motor-cars have come to stay, we can't deny that. We can't possibly exclude them, as the happy Prince Edward Islanders have been able to do, but it is to be hoped that, before long, some plan will be devised, that will check the dust nuisance, and lift the ban of practical imprisonment in their own homes, through fear of automobiles, under which so many of our population—the old men, the women, the children—are to-day existing.

It has been suggested that the roads be oiled, but the difficulty so far is the expense. Here then, is an opportunity for inventors. The man who could devise some practical means of keeping down the dust on motor-infested roads, would surely be a benefactor to mankind.

A second suggestion is that certain days in the week be permitted to motorists, the remaining days, e.g., market-days, being reserved for the farmers. This would certainly be better than the present system—or rather lack of system—but would make no provision against

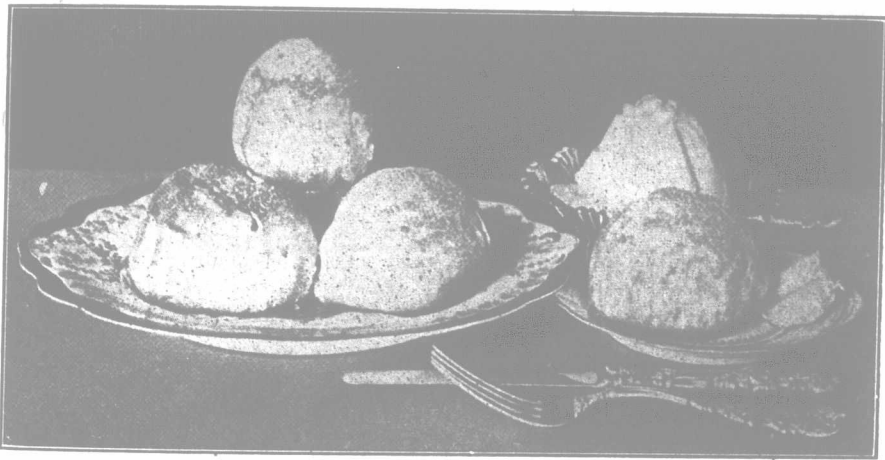
the dust nuisance during the time open to the motorists.

A third solution of the problem which has been offered is that special automobile roads be built along leading routes, a plan which would divert the greater number of the motor-cars from the quieter country roads, and so afford, to some extent, relief. Towards this scheme, in Ontario at least, a beginning seems to have been made, since the construction of an automobile road from Montreal to Hamilton is now under construction. I do not know what arrangements are being made for paying for this road, but it is to be hoped that the farmers are not to be taxed for it.

The same hope may be expressed in regard to the plan for a system of "trunk roads" which has, of late, been mooted for Ontario. It takes but half an eye to see that such roads, if constructed, would be practically automobile roads, used chiefly for pleasure by city and town folk. Comparatively few farmers throughout the country would ever use them; freight traffic would go, as ever, by railway; hence it is sincerely to be hoped that, if it is decided that they shall be built, the taxes of the farmers at large will not be raised either for building or maintaining them. Let them be provided for by increasing the revenue from special automobile licenses, or some such device which will throw the expense upon those who will make use of them. Any other method would be manifestly unfair. May it be repeated,—the farmers, most of whom have enough to do to provide a few luxuries for themselves, when they can indeed manage that, should not be taxed to provide mere pleasure for the rich of the cities and towns.

What think you about all this?

The health authorities of Montreal are insisting that all fruit, ice-cream, confectionery, etc., shall be screened from flies and dirt. This is a good movement



Paddy's Bundles.

which, it is to be hoped, may extend to other cities, and that right speedily. The amount of dirt eaten by people who buy berries, cakes, candies, etc., exposed not only to flies but to all the filthy dust blowing in from the street, would surely be appalling, if it were possible to have it estimated. Things may be kept much cleaner in the country, with a little care. There is not so much dust, and by taking enlightened precautions, the fly nuisance may be, in most places, practically done away with. If, however, one's house chances to have been placed in unfortunate proximity to a barn the matter is not so easy. Flies will come from most barnyards, and just now their "season" is in full swing. Even screened doors and windows and reams of sticky fly paper cannot keep all of them out, but one can at least follow the example of Montreal and cover all food-stuffs.

A poor graphophone is one of the most torturing nerve-rackers yet invented, but those of the best makes have now been so perfected that the tones are rich and mellow, with none of the raspiness that makes the cheaper sorts so distressing. Many of these better class instruments have found their way into the homes of our farmers; once there their value, as real helps to the home, depends wholly on the choice of records.

I heard such an instrument in a farm home not long ago. The choice of records was excellent. There were selections from noted bands, violinists, and cor-

net-soloists, with a rousing ditty or two from Harry Lauder for variety, and the mistress of the house remarked that she had only been deterred from buying a song from Caruso, the world's greatest tenor singer, because of the price, six dollars being charged for a single record.

At the time I wondered vaguely as to whether the profits made by such singers through the graphophone companies, must not be very large, and as usual, when one "wonders," have chanced upon full enlightenment in regard to the subject. By to-day's "Literary Digest" I find that the amount realized by the great singers from talking-machine companies averages about \$25,000 each per year. Caruso's yearly income from this source is about \$90,000, and has even surpassed that sum.

Thinking these facts interesting to those of you who possess "machines", I pass them on.

The other day, (I am writing this on August 19th) a box of snakes consigned to some "show," lodged in the Customs House here. I presume that it was opened for investigation and that the "openers" fled. At all events the snakes escaped, and, so far as I have heard, have not yet been located.

I have just had a letter from one of my "paper" friends, who has heard of the event, and who hopes that none of them will have penetrated the Farmer's Advocate. At all events, the expectation is expressed that, since my department of the paper is a sort of "departmental store," I will soon be handing out some cures for snake-bites.

No, nothing worse has entered the Farmer's Advocate precincts than a millipede. There is a millipede cavorting about down stairs, I believe, but sub rosa,—among the papers. It came in a box, and was sent by one of the children who wished to know what it was,—but, awful fact!—the Customs House is but a block and a half away!

"Departmental Store,"—well, that does describe our Home Department to a dot. Don't you think so? May we ever be kept supplied in all the "lines." Junia.

Some Good Things to Try

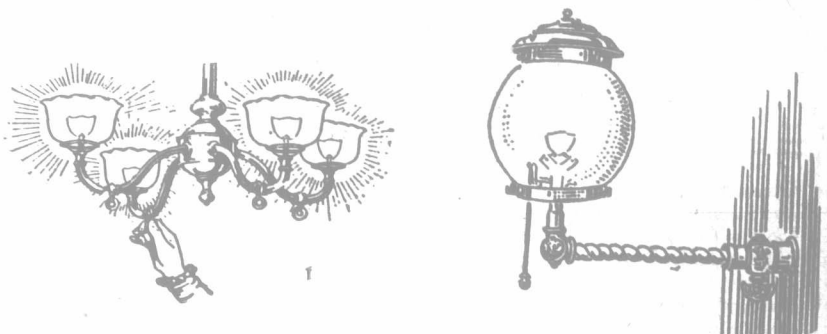
Paddy's Bundles.—Now that apples are in, try these. Core four tart apples without paring, then pare carefully, and set them aside. Make a pastry as follows: sift 3 small cups flour with $\frac{1}{2}$ teaspoon baking powder, 1 teaspoon sugar, and a pinch of salt. Now rub in 4 desert spoons butter, and mix to a stiff paste with cold water, using a knife to mix with. Do not roll the paste, simply divide it into four parts. Lay an apple in the middle of each and with floured hands work the pastry over the apple, leaving a hole at the top. Fill up with sugar, a clove, and a teaspoon of water, then close the dough over the hole. Brush the pastry with water very quickly, sprinkle with sugar and bake in a hot oven from $\frac{1}{2}$ to $\frac{3}{4}$ hour. Serve hot or cold with plain cream or whipped cream.

Cabbage Salad.—Choose a nice white head of cabbage and let it stand in very cold water for an hour. Now drain, and shred it very fine, being careful to have no water left. Mix the shreds with the salad dressing and press into a mound on the dish in which the salad is to be served. Press slices of hard-boiled egg around the mound, and decorate the top with pickled beet chopped fine, or,

LIGHTING AND COOKING

In the country home with a **Davis Lighting System**

When you seriously study the lighting of your home and barns, safety is the first consideration.



The Safety of Fixtures

Fastened permanently to piping—cannot be tipped over, upset or knocked down like lamps—ornamental and attractive.

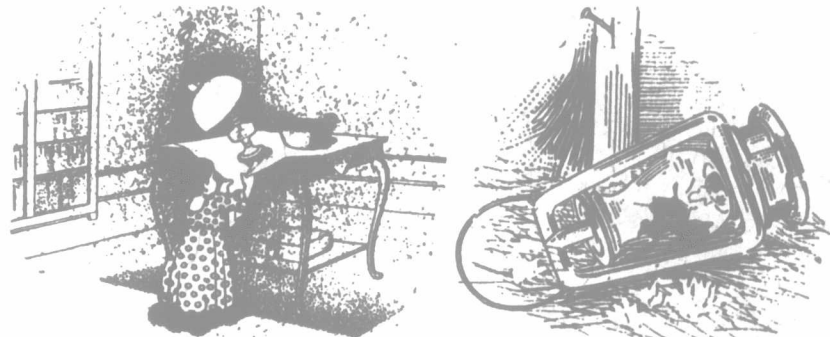
Better Than an Insurance Policy

Barn lights cased in protecting glass globes. Lighted by pressing a button or pulling a small chain. No matches used.



The Luxury and Economy of Cooking with Acetylene

Lights instantly—can be regulated just as you want it. Under perfect control all the time. Convenient, safe and economical. No dangerous gasoline to handle.



Accidents Like This are Always Possible with Lamps

The Lantern in the Barn
Lots of fires are caused in this way. Fires in barns are hard to control, and usually result in heavy loss.

DAVIS LIGHTING SYSTEMS

Are absolutely safe. Making gas only as consumed by the lighted burners. Permitted by all insurance companies.

Investigation Costs Nothing.—Drop us a card to-day, and we will mail you our illustrated catalogues free.

DAVIS ACETYLENE CO'Y
360 Richmond St. LONDON, ONT.

See our exhibit at Western Fair, in the Machinery Hall.

COMFORT SOAP

"IT'S ALL RIGHT"

If you want Comfort Use Comfort Soap

POSITIVELY THE LARGEST SALE IN CANADA

ONTARIO LADIES COLLEGE

WHITBY ONTARIO

Offers the highest educational facilities and the most charming home life under healthful and inspiring surroundings. Seven resident University Graduates give instruction in the Literary Department. The Departments of Music, Fine Art, Elocution, Commercial and Household Science are equally far in advance in staff and equipment of those found in the ordinary Ladies' College. Proximity to Toronto gives City advantages without the distractions incident to city residence. Buildings and grounds, new gymnasium, swimming pool, etc., unequalled by any Ladies' School in this country. All physical exercises in the gymnasium directed by an expert Lady Physician.

Send for Calendar during July to Prof. W. J. Greenwood, B.A., Mitchell, Ont., and during Aug. to Dr. J. J. Hare, Whitby, Ont.

HAPPY THOUGHT



PERFECT BISCUIT BAKING NEED NOT BE DIFFICULT

It all depends on the heat your oven gives.

Ranges with slow ovens are all right for some kinds of biscuits. But an oven that is chronically slow simply ruins others, and it is useless for many purposes.

Other stoves bake beautifully on one side and not on the other. So you can never depend on them.

"Happy Thought" Ranges are perfect bakers.

If you want a slow oven, a slow fire will produce the desired result. If you want a very hot, quick oven, just build up the fire and keep it going strong for a little while.

This feature saves you money in two ways: It saves fuel by making it unnecessary to use too much, and by giving you the full heat value of every ounce of fuel.

It saves the food material by ensuring just the right result, no matter what part of the oven you use.

More than a Quarter Million Canadian women use the "Happy Thought" every day.

HAPPY THOUGHT RANGES
Are sold in your locality. Ask your hardwareman.

WILLIAM BUCK STOVE CO., LIMITED, BRANTFORD

with figures cut from slices of pickled beet.

Salad Dressing for Above Salad.—Beat 4 eggs, then pour over them, a few drops at a time, 1 cup hot vinegar, beating well. Cook over hot water until thick, then beat in 2 teaspoons butter, a little salt, and 1 teaspoon mustard moistened with a little cold water. Last of all add a dash of red pepper, and 4 teaspoons sugar. All of this may not be required for the cabbage salad—it depends on the size of the cabbage—but the dressing will keep a week or more in a cool place.

A Wholesome Apple Pie.—Apple pie with very rich pastry is not very wholesome. Here is a recipe for one that may be eaten with comparative safety. Make the pastry tart as follows: sift 1 teaspoon sugar, a pinch salt, and $\frac{1}{2}$ teaspoon baking powder with 2 small cups flour. Next rub in 4 dessert spoons dripping or butter, and make into a pastry with water, adding the water gradually, and mixing with a knife. Now roll out quickly about one-third inch thick. Have a pie dish (granite, not tin) in which put part of the sliced apples, which should be ready and waiting. Sift on a large tablespoon of sugar, add 2 or 3 cloves, then put on the rest of the apples. Brush the edge of the pie dish with water, then lay on this edge a narrow band of paste. Brush the top of this band with water, then lay on the sheet of pastry and press well at the sides. Trim around the edge, and decorate by marking with the back of a knife or snipping with scissors, but do not put a hole in the

add 1 small cup sugar, or more if liked, and boil 5 minutes. Pour into heated, sterilized bottles, and seal.

DYEING FURS.

Dear Junia,—I am a constant reader of the "Farmer's Advocate," especially the "nook," which I enjoy very much. There is so much which is so useful and helpful in it. Like many others I am writing for information. I have some grey Persian furs which are quite good yet, but I wish to have them dyed black. Can you give me the name and address of a firm which dyes them? Well, I do not want to take up much of your valuable space so I will close, wishing the "Farmer's Advocate" every success.

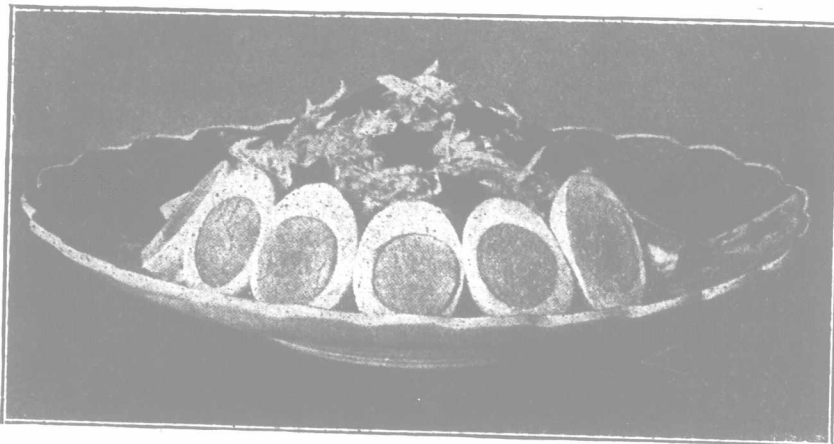
A Country Girl.

Grenville Co., Ont.

Last spring I saw a Persian lamb muff, which had been grey but had been dyed black. It looked very well indeed. Write to the Holt, Renfrew Fur Co., Toronto, about your furs. Since that Company has the largest fur establishment in Canada, they should be able to do the work for you. If they refuse let me know, and I will ascertain the address of the smaller establishment at which the muff I have referred to was done. When writing to Holt, Renfrew & Co., kindly mention the Farmer's Advocate.

Some Relishes.

Mushroom Catsup.—Put the Mushrooms in layers with a little salt sprinkled on



Cabbage Salad.

top. Now brush over the top with cold water, shake on some sugar, and bake in a moderate oven for $\frac{1}{2}$ hour. If the paste seems to be browning too quickly put a greased paper on top.

A pie made in this way, with no bottom paste, cannot be heavy, if the oven is right. When preparing the apples for the pie, do not make the slices thin. It is better to core and quarter the apples, then cut each quarter into 3 or 4 pieces. If they have to wait long for the pastry to be made keep them under water to keep them whiter. Be sure to have apples, not sugar, next to the pastry.

Green Corn.—4 well-beaten eggs, 1 quart new milk, 1 quart green corn cut from the cob, 1 teaspoon salt, 1 tablespoon butter. Stir well together, pour into a pudding-dish, and bake for half an hour. This is tasty and very nourishing.

GRAPE WINE.

Dear Junia,—I beg an entrance to your cozy corner. I enjoy the letters very much. I would like to get a nice grape wine receipt. I hope I am early enough to have it for the grape season. Wishing the corner every success, I will take my leave.

Mrs. L. C.

Huron Co., Ont.

Many thanks for sending in your question in good time. Your letter arrived on August 10th. Here is your recipe: To each gallon of mashed grapes add a quart of boiling water; let stand overnight and strain. To every gallon of juice add 3 pounds white sugar. Drop a few pieces of well-toasted bread in to hasten fermentation, let stand in a cool place until it finishes fermenting, then bottle and seal.

As many people do not believe in making fermented wine, here is a recipe for "Unfermented Wine." Put on the fire in a granite kettle 3 quarts water and 1 peck of good, ripe grapes, stemmed and washed. Let come to a boiling point and boil five minutes, then strain through a fine muslin. To every 2 quarts juice

each layer, and let stand four days, then mash them fine, and to each quart add $\frac{1}{2}$ teaspoon of black pepper. Boil for 2 hours in a double boiler or crock set in a kettle of water, then strain the liquor off without squeezing. Boil the latter by itself for half an hour, let it stand to settle, then pour on the solid part, and seal at once.

Tomatoes, Canned Whole.—Choose wide-mouth sealers, or else small tomatoes if ordinary sealers are to be used. Sterilize the cans, place the raw tomatoes in them, peeled but whole. Pour in boiling water until full, then put on the covers. Now place the sealers in a boiler, pour boiling water in till it reaches the neck of the sealers, put the lid on the boiler, wrap the whole with blankets, and leave until the water is cold. This recipe has been taken from a sister magazine. The lady who contributed it states that the tomatoes done thus were delicious, and that she did not lose a can out of 40 quarts. I should advise those who would like to try it, however, to experiment first with a sealer or two. If successful this would surely be an easy way of canning tomatoes.

Chili Sauce.—4 quarts ripe tomatoes, peeled; 4 peppers chopped fine; 1 tablespoon cloves, 1 teaspoon allspice, 1 teaspoon whole peppers, tied in a bag; 2 tablespoons salt, 2 cups brown sugar, 1 quart vinegar. Cook slowly for 3 hours.

Piccaililli.—Slice one peck green tomatoes and sprinkle with salt. Let stand overnight, then drain. Chop the tomatoes, 1 head cabbage or cauliflower, 7 onions, and 4 green peppers, all together. Mix together 1 small cup whole mustard, 1 cup sugar, 1 cup grated horseradish, and add. Cover the whole with vinegar and stew until soft.

Cucumber Pickles.—As you gather the small cucumbers put them into brine until you get enough to make the pickles. Leave them in brine from 2 days to a week. The brine draws out the strong flavor. Now dissolve 1 teaspoonful powdered alum for every quart of cold

water needed to cover the cucumbers; alum prevents shriveling. Take the cucumbers from the brine, rinse them in fresh water, then place in a granite kettle, laying, alternately, layers of green grape leaves to help preserve the color. Pour the alum water over and bring to a scalding point, then shove to the back of the stove and let stand, closely covered, for two hours. Now draw the cucumbers out and put them in very cold water. Next make the pickle vinegar. For every quart vinegar needed to cover the pickles, use 2 teaspoons cinnamon, 2 of cloves, 1 of mace, 1 of celery seed, a bit of horseradish, ¼ teaspoon mustard seed, ¼ teaspoon black pepper, a pinch red pepper, and 1 cup sugar. Mix the spices together dry and then tie them in a muslin bag. Heat the vinegar to boiling point, put in the bag and the sugar, the boil 15 minutes. Drain the pickles out of the ice-water, put them into jars, and pour the vinegar, slightly cooled, over them.

Indian Chutney.—Boil together 1½ doz. sour apples, 3 pints vinegar, 1 lb raisins, stoned and chopped, 1 lb sugar, ½ lb fine salt, ¼ lb ginger, ¼ lb onions, 2 oz. garlic, ¼ lb roasted mustard seed, and a little red pepper, when well cooked bottle and seal.

News of the Week.
Canadian.

Two new townships have been opened for settlement in Northern Ontario.

The Toronto Normal School property is to be sold, and new Normal and Model Schools built on a different site.

Ten thousand people left Toronto for the West on the first day of the Harvesters' Excursion last week.

The McGill medical course has been lengthened by a year, five years instead of four being now required to graduate as a physician from that University.

The city of Brantford, Ont., has petitioned the Provincial Government for the construction of storage dams along the Grand River, to conserve the water supply and prevent floods.

One thousand men were prospecting on the Gillies limit, Northern Ontario, within 12 hours of the time upon which it was thrown open for the staking of claims.

The right to cut pulpwood and timber in the Abitibi pulpwood limit, was recently acquired by Messrs. Ogilvie and Anson, of Montreal, who will establish a pulp and paper mill in the near future. In return for the right, Messrs. Ogilvie and Anson have agreed to pay \$5,000 per year to the Ontario Government for twenty-one years, plus the usual tax on spruce pulp and timber. They have also agreed to advance, during and after 1913, a sum of \$50,000 for the aid of settlers near Iroquois Falls.

British and Foreign.

Doctor G. E. Morrison, the noted correspondent of the London Times, has been appointed political adviser to the Chinese Government for five years.

The headquarters of the French troops in Morocco has been besieged by Moors, and a relief party has been sent from France to the rescue.

General Booth, the famous organizer of the Salvation Army, who died in London on August 20th, has been formally succeeded by his son, Bramwell Booth, as chief of the "Army."

Mary Leigh and Gladys Evans, two of the women who were recently sentenced to five years imprisonment for setting fire to a theater in Dublin at the time of Premier Asquith's last visit to the city, are on "hunger strike," and are being forcibly fed by the jail officials.

England is likely to demand that the question of the Panama Canal Bill, whose provisions in exempting American vessels passing through the Canal from tolls are regarded as a violation of the Hay-Pauncefote treaty, be submitted to The Hague Tribunal. If it is necessary that this step be taken, the other Powers of Europe will, it is expected, back her in the demand.

See that the Piano you are thinking about buying is par value for your money

BUYING pianos on faith may be popular, but it's not good business. We always strongly advise a careful examination of the best pianos made before buying. Even when people are inclined to buy the Sherlock-Manning we advise them to investigate other makes—to compare our pianos with the best made and form their own conclusions. We know the

**Sherlock-Manning
20th Century Piano**

"Canada's Biggest Piano Value"

possesses every feature making for piano excellence—that its sweet singing tone is lasting—that the instrument is built to endure.



Style 70

Our factory is thoroughly modern in every way—equipped with the latest labor-saving machinery and our employees are highly specialized proficient men who joy in their work. This combination assures the highest possible piano value at the lowest cost consistent with quality.

But, we have some **Inside Information** which we would like you to consider before buying a piano. We can show you how you may own a Sherlock-Manning 20th Century—one of the world's best pianos—and yet save considerable money.

Write us direct and we will tell you where you can see a Sherlock-Manning—how you can save \$100, and yet be perfectly sure that your piano is par value for the money.

Sherlock-Manning Piano and Organ Co.
London (No Street Address necessary) **Canada**

COWAN'S
PERFECTION
COCOA

"Couldn't wait, Grandpa"

Cowan's Cocoa shares with milk the first place as a drink for children. A pure Cocoa, it contains nerve, flesh and muscle - building material. Made with milk it is a perfectly balanced food, as well as a drink the children love.

YOUR GROCER HAS IT
208
The COWAN CO., Limited
TORONTO

POULTRY AND EGGS

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

JULY SALE — 2,000 baby chicks; 10,000 hatching eggs; 500 yearling hens; 50 yearling males. Chicks, \$20.00 per 100; eggs, \$1.50 per 15; \$7.00 per 100; hens, \$1.50 to \$2.00 each; males, \$3.00 to \$5.00 each. B. P. Rocks, White Wyandottes, R.C.R.I. Reds and S. C. White Leghorns. Write to-day for illustrated catalogue. L. R. Guild, Box 16, Rockwood, Ont.

SINGLE and Rose Comb White Leghorn Cockerels, \$1.00, single, and Rose Comb Ancona Cockerels, \$2.00. Guaranteed to please or no sale. Warden & Anstead, Box L, Paisley, Ont.

White Leghorn Cockerels For sale From the Cyphers Farm, Buffalo. \$1.00 each. Address C. J. WILSON, Tambling's Cor., Ont

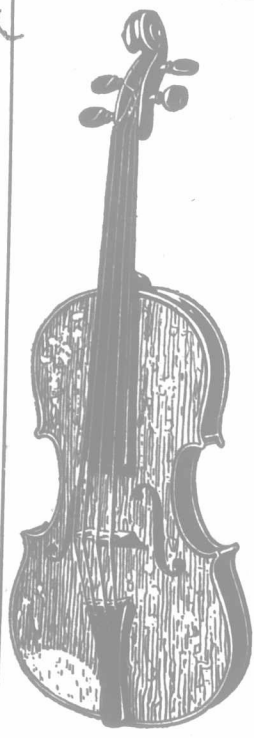
"Yes, I've cut out the slang stuff," Nell was telling her latest 'gentleman friend.' "Gee, but my talk was gettin' fierce! I'd worked up a line o' fable-material that had George Ade backed off the map and gaspin' for wind, but I've ditched all that now. I seen it was up to me to switch onto another track.

Jammed on my emergency brakes one day and says to myself. 'You mutt, where you think you'll wind up if you don't slough this rough gruff you're shovin' across on your unprotected friends? You never will land a Jonny-boy that's got enough gray matter in his cupola to want a real, bang-up flossy lady for his kiddo instead of a skirt that palavers like a brainstorm with a busted steerin'-gear.' Any girl can talk like a lady, even if she never gets closer to one than to stretch her neck when some swell dame busses past in her gas-wagon. I says to yours truly, 'It's time to reformate your grammar, little sister,' and you betcher sweet life I've cut the mustard."

MUSIC AT THE EXHIBITION and MUSIC TO TAKE HOME

When you visit the Toronto Exhibition you will hear two world famous bands, both of which use Boosey Band Instruments, as sold by us. Before you leave the City visit Canada's greatest music store, 143 Yonge St., and select a musical instrument to help cheer the long winter nights.

\$25
\$35
\$45 **Vareni Violin**



The VARENI is one of the finest products of the modern violin makers' art. Clear and mellow in tone, a genuine Vareni in the hands of an artist yields music to stir the soul; or played by one of lesser experience, it inspires and enthuses—makes practise a real pleasure.

Own a good violin, or none at all—a genuine Vareni is the only medium priced violin made on which a clear, sweet tone can be obtained and held the full length of the bow.

If you are not coming to the Exhibition, write to-day for booklet "H" of Musical Instruments.

Mandolins **Guitars**
Banjos **Flutes**
Cornets **Harmonicas**

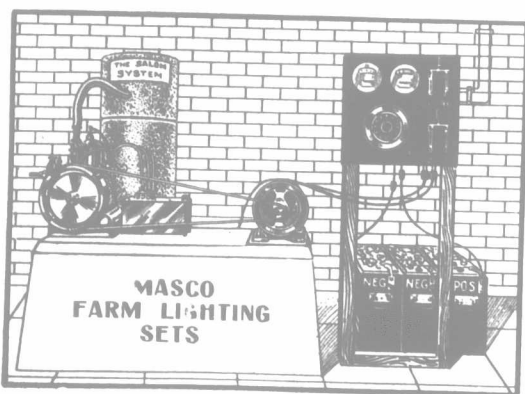
This may be your last chance to visit us in our old home; a few weeks will see us in our brand new ten-story building.

THE WILLIAMS & SONS CO. R.S. LIMITED
143 Yonge St., Toronto, Ont.

FREE
COURSE OF INSTRUCTION WITH EVERY INSTRUMENT.

MODERN FARMERS USE ELECTRICITY

YOU have heard much of late concerning the manifold uses of electricity on the farm. The Ontario Government endorses it—demonstrates its applications at the National Exhibition—and is spending huge sums to provide Niagara Power to accessible farms.



Do you know that any farm may have its own electric plant—producing cheap brilliant light—and steady dependable power. MASCO Farm Lighting Sets are built for this purpose. They are moderate in cost—economical and simple in operation. As a responsible electrical house we guarantee every Set, and instal same if desired; or furnish the material for doing this work yourselves.

Write for full particulars.

THE MASCO COMPANY, Ltd, 205 Yonge St., TORONTO, CAN.
Electrical Supplies of Every Description.

QUALITY AND SIZE IN For the best the breed produces in the combination of size, character, quality, breeding and action, see my 1912 importation of Clyde Stallions and Fillies. Prices and terms unexcelled.
CLYDESDALES
JAMES TORRENCE, MARKHAM.
Locust Hill C. P. R. P. O. and Sta., G. T. R. L. D. phone

Crosseyed Justice.

The late Wilbur Saunders, of Montana, once United States senator from that state, rode into a Montana mining town one afternoon and found the entire population about to lynch a man who had been stealing ore.

saunders pushed his way into the crowd.
"Stop this!" he thundered. "Stop this! I protest! There has been too much of this sort of thing in Montana. We must break up this habit we have of hanging men without a trial by law. You must not hang him now. Let us give him a fair and impartial trial as prescribed by law, and then hang him!"

WANTS

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.

CHOICE 100-acre farm for sale. All good, smooth work land. Apply, Box 28, "Farmer's Advocate," London.

CHOICE 100-ACRE FARM, Huron County, 2 miles from market and village of Brucefield, 40 miles north of London; 90 acres under cultivation, balance bush and pasture; brick house, furnace heated; basement barn; cement floors, cement silo; spring water piped to barn, gravity system. My only reason for selling is ill health, and for quick sale will include 50 acres of bean, oat and barley straw, and 6 acres of good ensilage corn. Price and terms reasonable. Photo of buildings and full particulars on request. Alex. A. Watt, Brucefield, Ontario.

FOR SALE—160-acre bush farm, Northern Ontario; 16½ acres under crop. Rich clay loam soil, good timber. 4½ miles from Earleton Junction. Box 6, Earleton, Ontario.

FARMS FOR SALE—Improved Wellington County farms. Now is the time to inspect. No obligation or expense. Jones & Johnston, Guelph.

FARM FOR SALE—150 acres, Lot 8, Con. 9, West Gwillimbury, 4 miles from Bradford. Clear and slightly rolling; 2 acres orchard; bank barn, brick house. Apply on property, or P. Evans, Bradford.

FOR SALE—Good farm and dairy business, supplying town of Harriston with milk. Apply: Thos. Callaway, Harriston, Ont.

FARM FOR SALE—120 acres, Lot 22, Con. B, North Dorchester Township; sugar bush worth \$500 per year; abundance hard and soft water; story and half brick house, nearly new, cement basement; also frame house in good state of repair; bank barn and stabling and other outbuildings; within ¼ mile of survey of C. N. Radial Railway. For particulars apply: James McNiven, Dorchester Station, Ontario.

FARM FOR SALE—212 acres rich clay loam, 200 acres under good cultivation, balance bush and pasture, no waste land, no stone or stumps, straight fences; barn, 60x90, hip roof, cement foundation and floors; cement piggery and henery; stabling for 50 head cattle, 14 horses; root house; lightning rods on barn, orchard; plenty hard and soft water; 11-room brick house, furnace; situated alongside the corporation of Bradford; High and Public Schools and churches; one mile from G.T.R. station. Apply: Drawer 276, Bradford, Ontario.

SCOTCH FARM HAND, married, wants situation on first-class farm; capable and reliable. Box A, "Farmer's Advocate," Toronto.

WANTED—Locomotive firemen, between 21 and 30 years of age, height not less than 5ft. 7 in., able to read and write and possess good eyesight and hearing. Apply to Locomotive Foreman, Grand Trunk Railway at London.

WANTED—Cash paid for Military Land Grants in Northern Ontario. Please state price and location. Box 83, Brantford.

WANTED—Kitchen help and dining-room girl. Short hours and good wages. Apply: Stewardess, Victoria Hospital, London, Ontario.

WANTED—An experienced Farm Manager capable of establishing and operating a four-hundred-acre stock farm, located along lake shore, in Elgin County. Apply, writing full particulars, to Box 25, "Farmer's Advocate," London, Ontario.

FARM FOR SALE—180 acres, 1st concession Delaware, 3 miles from Southwold Sta., 14 miles from London. Excellent grain and dairy farm; well watered; 6 acres apple orchard; brick house and suitable outbuildings. Apply: Joseph Weld, "Farmer's Advocate," London.

Girls Wanted

Girls from the country, after getting experience, are making from eight to twelve dollars per week in biscuit and candy department. Nice clean work. For information, apply **The McCormick Mfg. Co., London.**

Boys Wanted

About 17 years of age, wages to start \$6.00 per week. For particulars apply: **The McCormick Mfg. Co., London.**

BELLA COOLA—The Peace River Port. The last Great Western Railway terminus. A limited number of lots for sale. Write **PORT OF BELLA COOLA, LIMITED, 618 Pacific Building, Vancouver, B. C.**

Condensory Site Wanted.

Must be on railway siding. Plenty of first-class milk and abundance of cold water. The demand for St. George goods having increased so much more than the supply, we are compelled to look elsewhere for a location, where milk can be procured in much larger quantities. This is a genuine offer to any community who can offer us favorable inducements to move our plant.
ST. GEORGE CONDENSORY, J. Malcolm & Son, Proprietors, St. George, Ont.

When writing mention this paper.

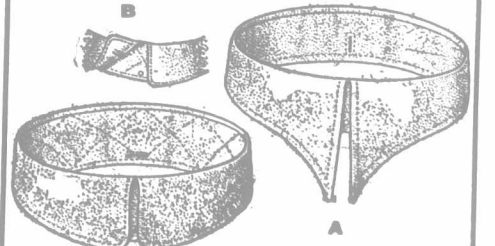
SEND FOR YOUR Collars and Shirts TO MANCHESTER, ENGLAND,

The Heart of British Industry.

You'll save many dollars and get the best goods.

—POST 85 CENTS FOR—**6 BENSON NEGLIGÉ COLLARS**

The Smartest and Latest Collar for rough wear Carriage and Duty Paid.



We want to prove to our Canadian friends the style and comfort of the famous Benson "Negligé." This collar is made of a new SILKY material, it is well cut, smart, and comfortable.

THE BENSON NEGLIGÉ NEVER LOOKS LIMP

but will retain its shape however strenuous you may be. **Good for either town or country wear.**

SEND TO-DAY stating size, and whether you wish shape "A" or "B"
Your money returned if not perfectly satisfied.

W. BENSON & CO.
Desk. 22
43, VICTORIA BUILDINGS, MANCHESTER.



Hairs on the Face

This blemish can only be permanently removed by Elec rolysis. The treatment is not painful when performed by competent operators. We employ none other. The use of depilatories, cutting, pulling, burning or rubbing with stone only increases and strengthens the growth. We assure satisfaction in each case. Come for treatment during the Exposition (Aug. 21—Sept. 9). **Moles, Warts and Red Veins** also successfully treated. Descriptive booklet "F" mailed on request.

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

The rector was sitting in his study hard at work on the following Sunday's sermon, when a visitor was announced. She was a hard, muscular-looking woman, and when the minister set a chair for her she opened fire somewhat brusquely: "You are Mr. Jenkins, ain't you?" "I am," replied the good man. "Well, maybe you'll remember o' marryin' a couple of strangers at your church a month ago?" "What were the names?" asked the clergyman. "Peter Simpson and Eliza Brown," replied the woman, "and I'm Eliza." "Are you, indeed?" said the minister. "I thought I remembered seeing your face before, but—" "Yes," interrupted the visitor. "I'm her, all right, an' I thought as how I ought to drop in an' tell you that Peter's escaped."

Eels are the luxury of the East End, and a fish shop stuck up proudly the notice:

"We sell eels to the King."
From the opposite side of the road the rival salesman watched his customers diverted to the shop that claimed to supply the royal table with eels. And then, after a week's reflection, he put up the rival notice, "God save the King!"

GOVERNMENT EXPERT Chooses SHARPLES Tubular Cream Separators for His Three Farms



Like other shrewd farmers, Mr. Anson Groh, widely known agricultural lecturer employed by the Government, knows the money to be made in dairying. He has succeeded because he knows profit is of far greater importance than first cost. Mr. Groh is seen sitting in this picture, with his family and assistants, before his country home. Like others making most money from dairying, Mr. Groh selected the Tubular in preference to all others because the Dairy Tubular contains no disks or other contraptions, has twice the skimming force of other separators, skims faster and twice as clean, and pays a profit no other can pay. Mr. Groh says:

"Preston, Ontario, May 28, 1912.—Some years ago we selected the Sharples Tubular. After a few years' use we found it necessary to get another separator for another farm and selected a No. 6. After several years' service of these two machines, we would not think of introducing anything else on our third farm, recently purchased. ANSON GROH."

Now you understand why owners of other separators are discarding their machines by carloads for Tubulars. Follow the example of Mr. Groh and the many others who have succeeded. Buy a Tubular for the sake of double skimming force, easy cleaning, and all the profits.

Get quick attention by asking for Catalog 193 **The Sharples Separator Co.** Toronto, Ont. Winnipeg, Man.



MAYPOLE SOAP

The Clean, Easy Home Dye

Maypole Soap cleans and dyes, at one operation, cotton, silk, wool, satin, velvet, lace or feathers. Gives the freshest, most brilliant colors because it contains soap. Colors are even, free from streaks, and absolutely fast.

Being in cake form, Maypole Soap does not scatter, waste or make a mess, as powder dyes do. Does not stain hands or kettle. Has long been England's favorite home dye because it is easiest and most satisfactory.

24 colors—will give any shade. Colors 10c—black 15c—at your dealer's or postpaid with free Booklet, "How to Dye," from

FRANK L. BENEDICT & CO., Montreal.



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

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

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

St. Lawrence Sugar

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

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

ST. LAWRENCE SUGAR REFINERIES LIMITED, MONTREAL.

67A

When Writing Advertisers, Please Mention "The Farmer's Advocate"

THE SPICE OF LIFE.

"LONG LIVE THE KING."

Hats off to the farmer, ye tribes of the earth,
And join in the chorus of praise to his worth,

A song of thanksgiving, a tribute of fame
In glory and honor and love to his name;

For great is the husbandman, mighty is he,
Whatever his station and where he may be;

The wise ones revere him, though heedless may scoff;
He's a true sovereign—then to him hats off.

The hope of all nations, the base of all things—
Foundation of riches, the grandeur of kings;

The life-blood of marts, and of progress the source,
Compelling earth onward upon its fleet course;

Let credit be given to whom it is due,
The one faithful toiler whose laurels are few;

The world is awaking to sense of his worth,
The labor-scarred farmer—a sovereign of earth!

Through all kinds of weather and a seasons through,
He toils at whatever his hands find to do;

From earliest dawn until darkness of night,
He challenges duty and fights the good fight;

At peace with the world and revering his God,
He wrests his inheritance forth from the sod,

Content with the onerous paths he must tread,
That the world shall be clothed and its hunger be fed.

Hats off to the farmer, staunch lord of the soil,
Whose sinews are knit by the force of long toil,

Who scatters the seed and who harvests the grain,
O'er hillside and valley and far-spreading plain.

Wherever men go and wherever they fare,
Is proof that the husbandman also is there,

Who yields the provender that fills the world's trough,
Enriching all nations: Then to him hats off!

—Sidney Warren Mase, in Ohio Farmer.

THE CROP EXPERT.

As each succeeding harvest nears, we never look in vain

For the Bull of Bashan Expert, who travels in a train;

Who gazes through the window,—then loudly he doth state

That two hundred million bushels is his final estimate.

He knoweth not of lurking weeds, of alkali or sand,

But boldly states the crops are good; in fact, are simply grand;

He doesn't even wait to see the green dissolve to gold,

And thinks we Western farmers all believe what we are told.

His head he bothers not a jot with frost, or rust, or hail,

But says the crops are so advanced they really cannot fail;

Then home he goes well satisfied before we tie a sheaf,

And proudly gives his figures, does this mighty Expert Chief.

Then the waiting market falters, then drops, and drops again,

Just as we weary farmers make a start to thresh our grain;

And we bless this blatent booster, as the bills upon us pour—

Not welcome green-backed dollars—but for implements and store.

Will someone give him poison, or paralyze his brain,

Until the threshing outfit has come and gone again?

For we who know the wily West can never rightly state

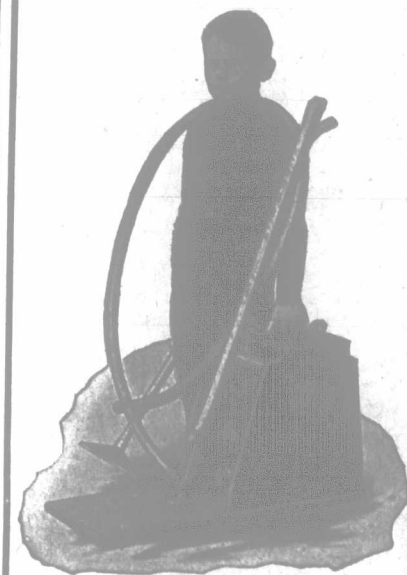
The number of our bushels till the tally tells our fate.

—By Horace B. Gibbs, in "The Farmer's Advocate and Home Journal," Winnipeg

They Have Won Their Place

Would **White Swan Yeast Cakes** have such an enormous sale in Canada if they did not make the best bread? Your grocer sells **White Swan Yeast Cakes** for 6-5c. FREE sample from **White Swan Spices & Cereals, Ltd.** TORONTO, ONT.

Isn't this the fairest offer you ever had?
We will send you, carriage charges prepaid, a
"King Edward"
Vacuum Cleaner
on a
TEN DAYS FREE TRIAL
In your Home



A Child can operate it.

The price heretofore has been maintained at a figure designed to protect the dealer, but **IN JUSTICE TO THE CONSUMER**, we have decided to sell our machine **DIRECT FROM OUR FACTORY TO YOU**, giving you the benefit of the middleman's profit, and at the same time giving you the same machine, equal in every way, for which you would formerly have paid your dealer a good margin of profit.

THE GREATEST OF LABOR SAVERS in housework is the "KING EDWARD" Vacuum Cleaner. It saves all sweeping, all dusting after sweeping, gets all the dirt, and, by **USING IT ONCE EVERY WEEK OR TEN DAYS**, saves your wife endless hard work, and keeps your carpets and rugs clean, sanitary, and safer for your children to play on.

Absolutely Free Trial in Your Home for Ten Days

To prove that we have the utmost confidence in the results to be obtained by the use of our machine, we will send one to your home on ten days' free trial, at our expense. If it does not do all we claim for it, return it to us at our expense. If you like it and keep it, then pay us for it. The price is **\$16.00**

We are saving you the middleman's profit, and **WE ABSOLUTELY DEFY COMPETITION AT ANY PRICE.**

OUR GUARANTEE
WE HEREBY GUARANTEE this Vacuum Cleaner, bearing our name, and manufactured by us, to be perfectly constructed, of good material, and perfect in workmanship. We fully warrant it, under fair usage, against any defects of workmanship or material for the term of **FIVE YEARS** from date.

Should any defect occur, not the result of neglect or improper use, we agree to satisfactorily repair the same at our factory, or replace with a new one. We furthermore guarantee that it will do satisfactorily the work for which it has been sold, and in the event of failure to do as represented, said machine is returnable at our expense.

The Geo. H. King Co.
LIMITED
Woodstock, Ont.

"ENTIRELY SATISFIED"

This is the report which we are receiving from our satisfied customers all over the country. They are using

Harab Concentrated Plant and Animal Foods

Are you one of our satisfied customers? If not, you should be, and you owe it to yourself to investigate and give our goods a trial. Call on our nearest agent. If you do not know him, write us direct, we will give you his name and address, give you particulars and prices of our goods, and tell you how you can do what our satisfied customers will do this fall.

CUT DOWN
YOUR FEED BILLS
BY USING

Harab Animal Foods

Give them a trial. They will cut down your feed bills, and at the same time produce better stock, thus making you money at both ends.

FOR HOGS

Harab Digestive Tankage (Guaranteed)

Protein 60%, fat 8%, phosphate 3%.

A highly concentrated Beef and Blood Meal put in the most available form. Has been thoroughly tried, and is giving remarkable results producing better hogs in less time.

FOR CATTLE

Harab Fatten Meal

The original sugar food, made on our own formula from the very best materials, put up in the best and most available form. Will increase their milk flow.

FOR YOUNG STOCK

Harab Blood Flour The Protein Food

Gives them a fair start. Supplies the strength-giving and flesh-building properties lacking in ordinary farm foods.

GROW BIGGER CROPS
OF FALL WHEAT

and build up your soil with true plant food, as contained in

Harab Animal Fertilizers

Manufactured from animal products from our packing house. Blood, Bone and Tankage thoroughly cooked and cured, then ground to a fine powder and mixed along with Potash in the right proportion to form

WELL-BALANCED FERTILIZERS

Containing no artificial plant food whatever, but only the **NATURAL PLANT FOODS** in the most available form.

RESULTS COUNT

If you want results, use

Harab Fertilizers

On your fall wheat and increase your yield per acre, improve the quality of your crop and satisfy yourself that it costs you less to use the best.

SHOW A PROFIT
ON YOUR POULTRY

FEED YOUR STOCK

Harab Poultry Foods

Are used by the best and most successful poultry-raisers in the country. It will pay you to use them.

A FEW OF OUR LINES:

Harab Beef Scrap

(In two sizes)

Beef Scrap, Chick Scrap

Without doubt the best all-round Concentrated Poultry Food on the market for all classes and conditions of poultry.

Harab Beef Meal

(For Laying Hens)

Will keep your hens laying in the winter, when eggs are high in price.

Harab Poultry Bone

(In two sizes)

Coarse and Bone Meal

Hard raw bones put up in such shape that, while containing all the food values, they will not spoil as ordinary raw bone will do.

HARAB OYSTER SHELL

HARAB CRYSTAL GRIT

HARAB POULTRY CHARCOAL

We also handle all Standard Feeds, Grains, Alfalfa, Seeds, etc.

A TRIAL WILL CONVINCING YOU
THAT IT PAYS YOU TO USE

HARAB FERTILIZERS HARAB ANIMAL FOODS

MADE IN CANADA BY

The Harris Abattoir Co., Limited

Fertilizer Department

TORONTO

CANADA

Don't fail to call on us when at Exhibition, at our stand on the grounds near the Poultry Buildings.

GOSSIP.

Henry Gatehouse, of Montreal, in his advertisement, offers highest market prices for live broilers, chickens, or live poultry of any kind, in large or small shipments. Write him for quotations.

"Dr. Gibson, of Edinburgh, stated at a meeting of the British Medical Association, that an 18-year-old boy who wished to enter Woolwich was debarred because of his height, which was an inch below five feet. Dr. Gibson administered thyroid extract, prepared from the thyroid gland found in the necks of animals as well as man, with the result that the boy grew seven inches in six months. Here is a chance for veterinarians to show what they can do to increase the growth of farm animals. What about the research work for which the grant from the Development Fund was obtained?"

[Note.—Readers of "The Farmer's Advocate" may exercise their own judgment about believing this story, quoted from an Old Country exchange. We hope nobody will quote it as being necessarily true because they saw it in "The Farmer's Advocate."]

TRADE TOPIC.

Seed potatoes of approved varieties are advertised for sale in this issue by C. Fred. Fawcett, of Upper Sackville, New Brunswick, who makes a specialty of growing the best varieties. He states that many of his individual hills weigh ten pounds, and the crop is so large this year that he prices them at the moderate figure of \$1 per bag, f. o. b., and car lots at less.

"Her Be Devon".

I was aroused by the sound of boisterous laughter proceeding from the large kitchen and public sitting-room of the inn adjoining the private parlor which had been allotted to me. There was a sliding window, hidden by a red curtain on the nearer side, in the wall between the two rooms, for the purpose probably of enabling the landlady to keep an eye on the customers. The window had been left open, and thus I had an opportunity of hearing the conversation delivered in the broad vernacular, and without the restraint which the presence of a stranger always imposes on the natives. I don't think any apology for listening is needed, for it was a public place, and the conversation was not of a private nature; in fact, I could not help hearing; the voices, as in the case of Mrs. Cluppins, "forced themselves upon my ear."

There were eight or ten men in the room, sitting on forms placed against the wall, and on the settle before the blazing fire upon the hearth. They were a merry party, all perfectly sober; and everyone seemed to be on good terms with himself and with his neighbors.

One of them, evidently a laboring man, in corduroy breeches and leather leggings, with his hat pushed well back on his head, had a new four-pronged digging fork, which we call an "evil," in his hand; and was regarding it with a puzzled look on his face.

"Ought wrong wi' thicy evil, Jobie?" inquired one of the company.

"I zim that two of the prongs be furdur apart than t'others," he replied, still staring at it.

"Be mun tho' let me looky to un," said another, stretching forth a sinewy hand and taking it. "No, they bain't not so far as I can zee," he added, after carefully examining it, with his head first on one side, then on the other.

"They be, I tell 'ee," asserted Job. "Hany fule can zee they be; looky you to 'un, Jan."

"Dadrabbit me if I can zee any hodds between mun, Jobie," said John, having subjected the evil to a close scrutiny.

"Yur! I've a got me foot-rule in me pocket," said a young carpenter. "Lemme measure 'un. There, the prongs be all exactly dree inches apart; one ain't no furdur apart from t'other than t'other is from he."

This professional opinion was considered conclusive, and Job was politely told that he must "be mazed," but he stuck to his point.

Singling out the carpenter, he said, "Well, looky yur, 'Arry Ellis, wilt thee

bet me a pint I can't prove that two of these yur prongs be furdur apart than t'others!"

"Ees fay will I, or a gallon if thee likes," cried Harry, laughing.

"Then," said Job, taking one of the outside prongs in his right hand, "these yur prong be furdur from that prong"—here he took in his left hand the other outside one—"than he is from heither one of t'others, now bain't he?" and Job looked triumphantly around.

There was a loud laugh at Harry's discomfiture, which seemed somewhat unfair, as all the company had been taken in as well as he; but he was the only one rash enough to bet. However, he had not to pay, as the landlord, declaring he would not allow betting in his house, magnanimously stood Job the pint.

"Where did 'ee get thickey evil too," asked John. "He looks as tho' he hadn't done much work eet."

"Nor won't neither, zo long as Job hath 'un," added the carpenter, getting the laugh on his side by this little sally.

"Geddout, 'Arry," exclaimed Job, "I only bought 'un yesterday, and I've dood more good work wi' 'un already than thee'st dood all the week. I sticked a furd old haidyboar so big as thy haid, and wi' all so much zence inzide un; he won't zuck no more cow's milk, I wat'nt."

"Nasty varmint they be, sure enough," said one of the company, whose velvetens proclaimed his profession. "'Tis terrible funny how they hincrase, zeeing that haidyboars don't bear no young."

"What's thee mean, keeper, they has young zame as other creatures, don't mun?"

"No, they don't, I tell 'ee, and that I knows for zertain."

"What do mun do then," inquired Job, "lay haigs?"

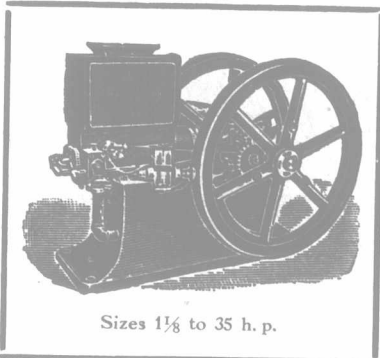
"No, my son, they don't lay haigs," said the keeper, "and since you'm so hignorant I'll instruct 'ee. The haidyboar don't bear young, but the sow doth."

See the Monarch Engine at the Fair, Toronto

This is the best made Farm Engine on the market. It has adjustable main bearing, large carbon-steel connecting rod, crank shaft over standard size, sight gasoline gauge, fine carburetor, iron fuel tank, etc.

Some styles are air cooled, others water-cooled. Each part is made by specialists. It starts at a touch on the coldest winter day. Costs a few cents for a day's power. Lasts for years. Simple and dependable.

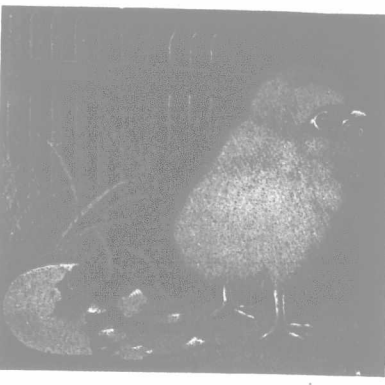
You can get a Monarch for cash or on time. See one working at the Exhibition, Toronto. Get our catalogue and terms for a post card.



Sizes 1 1/2 to 35 h. p.

CANADIAN ENGINES LIMITED, DUNNVILLE, ONTARIO
Frost and Wood, Ltd., Smith's Falls, Agents for Eastern Ontario, Quebec and Mar. Provinces

POULTRY WANTED



We are open to handle
**Live Broilers,
Chickens or
Live Poultry**

or any kind in large or small shipments.
Highest market prices paid. Write us for quotations.

Henry Gatehouse, 348 West Dorchester St.,
DEPT. F. A. MONTREAL, QUEBEC.
Fish, Poultry, Eggs, Game and Vegetables.

"Ah, Keeper Stevens, you'm too sharp. Mind thee doesn't cut theezel. If thee knows so much about hanimals as thee ought for do, canst thee tell me what sticks rooks make their nesteses wi'?"

"All zorts of sticks," said Stevens, shortly.

"Noi they only use two zorts," asserted Job.

"Get along with 'ee, I know better'n that; I've zeed mun breaking off bits of beech, and hoak, and hash, and sycamore, too, and carry mun to their nesteses."

"Rooks honly use two zorts of sticks," repeated Job dogmatically, "and that I can kiss the Book to."

"Well, what zort of sticks be mun, then?"

"Straight sticks and crooked sticks, and no others," said Job, with a very solemn countenance, "and I zim that keeper, being a keeper, ought to ha' knowed it."

The latter, rather a surly individual, was evidently annoyed; and as it is always to the interest of farmers and workmen of a sporting turn of mind to be on good terms with the gamekeeper, a grimfaced old man, commonly called, as I afterwards gathered, Foxie Jack, tried to give the conversation a more pleasant turn.

"I zeed you a-shutting on the warren this forenoon, Mr. Stevens, when I wor working to Grange; and I zaid to Jan Reddaway that I'd never zeed prettier sport. A rabbit you vired to come awizzing droo the yearn's (ferns) home by me. He wor travelling like a hexpress train; frighted most to death, he was."

"Ah, I believe I did miss one," said the keeper; "but he went like the vert same, twisting and turning, as Foxie saith. I reckon he was an old customer I've a-shot at before to-day."

"I reckon not," said Job in an undertone, which, however, reached the keeper's ears, as it was doubtless intended to do. He turned sharply upon the speaker, and demanded:

ROYAL JEWEL

STEEL RANGE

THE RANGE OF QUALITY



The Body of Range is made of best cold rolled, blued, planished steel, with lining of heavy asbestos millboard.

Large Top Cooking Surface with wide, short centres between pot holes.

Hinged Front Key Plate over fire, can be raised or lowered by crank.

Oven is perfectly square, large and well ventilated, and is made of one piece of heavy sheet steel, hand riveted. No dust. No warping. No cracking. Steel Oven Racks.

Fire Box large and deep for coal or wood. Special wood fire box when wood is to be used steadily.

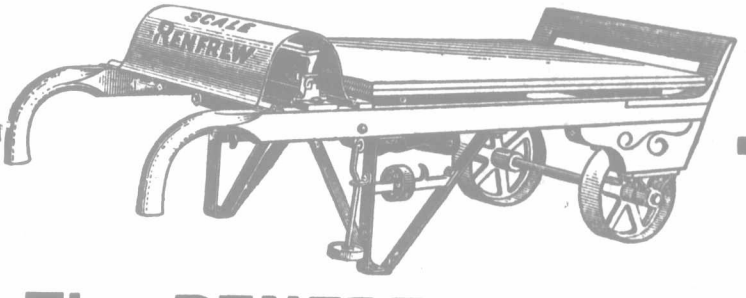
Removable Improved Duplex Grate, the best form of grate ever devised.

Ask for illustrated booklet explaining these, and many other excellent features.

JEWEL STOVES AND RANGES ARE MANUFACTURED BY THE BURROW, STEWART & MILNE CO., LIMITED. AT HAMILTON, ONT., AND ARE FOR SALE BY

the leading Stove and Hardware Dealers everywhere. New thirty-two page book of selected cooking receipts mailed to any address free. Write for yours to-day.

"Wheel the Scale to what you want to Weigh"



The RENFREW Handy Two-Wheel Truck Scale SAVES MONEY FOR FARMERS AND DAIRYMEN

Thousands of farmers are losing money yearly through the inaccuracy of their scales.

It was to protect farmers against these losses that the Renfrew Truck Scale was designed and built.

And it does protect them—by being absolutely accurate.

Gives the farmer all his profits on everything he sells by weight.

Saves for him time and labor—simply wheel the scale to what you want to weigh

Weighs anything from one pound to 2,000 lbs.—and weighs it right.

To verify these statements, mail coupon now for our Free Booklet

"The Profit in the Last Ounce." It tells in an interesting way 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 Distributors Co., Ltd. CALGARY—Reynolds & Jackson EDMONTON—Race, Hunt & Giddy MANITOBA—Clare & Brockest, Winnipeg

Mail New Coupon
Please send me free of charge the booklet, "The Profit in the Last Ounce."
Name.....
Address.....
THE RENFREW SCALE CO. Renfrew, Ontario

BEATS ALL PRICES **FREE SAMPLE** **THE FENCE MAN** **GUARANTEES HIS GOODS** **RUST PROOF**

DYER **HE PAYS FREIGHT**

You'll Never Buy Fencing as Cheap as This. Dyer's at it Again. Great Cut in Prices, if You Order Now

Ten-strand wire fencing, 36 inches high, top and bottom strands, No. 9 gauge. Intermediate strand and cross bars, No. 12 gauge. Cross bars 18 to the rod, best steel wire, going for 23c. a rod.

This offer won't, and can't, be repeated. Cost of wire is going up. So get your order in now—while this tonnage of mine lasts. No more when it's gone.

Remember, I pay freight in Ontario and North and South Bay. You pay freight outside this district, but you only have to pay 22c. per rod.

This is a crackerjack new style of fencing. Its just great for pigs and small stock.

Dandy for lane fences, and if you add two or three strands of barbed or coiled wire—it's alright to turn horses and cattle.

And it's pretty enough for front lawns.

So hurry up—get your order in now. First come first served.

Send money order to:

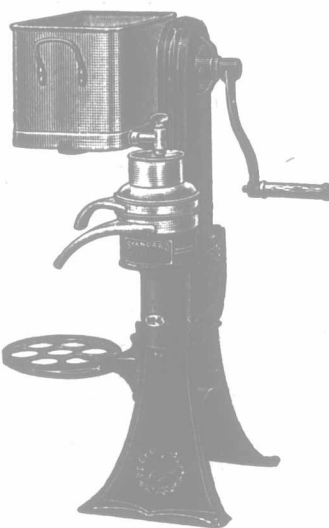
Dyer, The Fence Man
Dept. C. Toronto, Ont.

Don't forget to come and see me at the Exhibition. I've some great new lines to show you.

See Our Exhibits At The Fairs

You are cordially invited to visit our Exhibits at the Fall Fairs, and to make a thorough inspection of the

Standard



CREAM SEPARATOR, and learn why it has earned the title of the "World's Greatest Separator."

See also the "RENFREW STANDARD" Gasoline Engine, which we are now placing on the market. This is the most improved, most economical and most reasonably priced engine now being offered to Canadian farmers. The "RENFREW STANDARD" engine starts without cranking. Its speed is controlled by a fly-ball governor, and it consumes less fuel per horse-power developed than other engines. Sold in all sizes, with magneto or battery equipment.

Toronto, Aug. 24 to Sept. 9.

Quebec, Aug. 24 to Sept. 3.

Sherbrooke, Aug. 31 to Sept. 7.

London, Sept. 6 to 14.

Charlottetown, P. E. I., Sept. 4 to 7.

Renfrew, Sept. 18 to 20.

Halifax, Sept. 11 to 19.

St. John, N. B., Sept. 2 to 7.

Ottawa, Sept. 5 to 16.

We are looking forward to the pleasure of meeting you at our exhibit.

The Renfrew Machinery Co., Ltd.

Head Office and Works: RENFREW, ONT.

Sales Branches at Winnipeg and Sussex, N. B.

PIONEER FARM SEED POTATOES

Our specialty is growing seed potatoes in a climate down by the sea that have proven to give about double the yield when compared to native seed planted in Ontario. This change of seed will make your potato field one of beauty and a pleasure to work in.

Let me help you to make this change. Lots of our individual hills weigh ten lbs. Good seed stock is going to be high again this year. Let me send you some this fall. You can winter them as cheap as I can. "Irish Cobbler," "Early Ohio," Delaware, Empire State and Green Mountain are good varieties. \$1.00 per bag, f.o.b. here. Bags include 1. Cash with order. Car lots have a better figure.

C. FRED. FAWCETT, Upper Sackville, N. B.

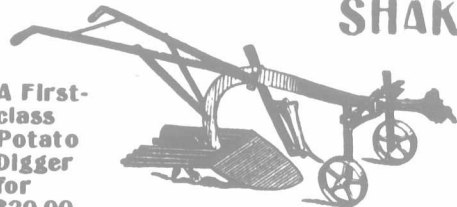
SHAKER POTATO DIGGER

With Fore Carriage

A First-class Potato Digger for \$20.00.

ERIE IRON WORKS, Limited, Makers

ST. THOMAS, Ont.



Natural temper steel blade. Weed Fender and gauge wheel. The Shaker Digger has a perfectly flat blade and will not cut the potatoes. The back grating shakes the earth clear and leaves the potatoes clean and on top of the ground.

"For why, then, Job Smith?"

"He wouldn't have been so frightened if you had, knowing he worn't in much danger," replied the irrepressible Job.

This reflection on his skill was too much for the keeper's temper; he sprang up as if about to take prompt revenge, whereupon Job, deeming discretion the better part of valour, seized his "evil" and slipped out of the door. The keeper for a moment seemed inclined to follow him, but thinking better of it, sat down and glowered at the company. Two or three, who had been laughing, hid their faces in their mugs, but Harry Ellis, who happened not to have one at that moment, as the landlord was just refilling it, was obliged to complain of a violent twinge of toothache, which, he said, made him screw his face up all manner of ways. Stevens eyed him darkly, but made no remark.

"Don't 'ee take no notice of that there Jobie, keeper," said a jovial-looking farmer. "He's always carrying on his jokes w' someone. Us all know you can shoot proper, and it wouldn't be vitty to kill every shot, or there'd be nought left for a bit of sport) come Kirs-mass. Tell about jokes, I heard one this forenoon which nearly made me bust. Farmer Muggins and I were standing on the big road a-telling together; and he can tell, too, like an engine, there's no stopping of 'un. He thinks he knoweth more'n all the parish put together, but us all know he isn't 'exactly'. Well, while he was a-yammelling on, Carrier Jim come along from Ooretton with his wagon properly loaded up, and a gurt cloam oven 'pin top. Just as he come alongside of us he stopped to pit on his overcoat, 'cause it wor raining a bit."

"Better git in thickey oven, Jim," zaith Farmer Muggins.

"Better if you'd a-bide in a bit longer, 'fore they tooked 'ee, maiste," zaith Jim.

"Farmer didn't know which way for looky; he turned right round and wait of home w'out never a word to Jim or me."

This story caused great amusement, and loud and long was the laughter which greeted it. Perhaps I ought to explain that the point of the joke lay in the Devonshire custom of calling a man who is not very hard in the head (not "exactly," as we say), half-baked, or, that he was taken out of the oven too soon.

Farmer Muggins did not seem to be held in high estimation by his neighbors. I gathered from the conversation which followed, that he had only lately taken a farm in the parish, and that, like many new-comers, he thought he could teach the old inhabitants a better method of farming than that which life-long experience and practical knowledge of the soil and climate had taught them was the best.

The company at the "Ring of Bells" discussed him pretty freely, and criticised his system of farming unmercifully. "Clever as he thinks himself, I got a rise out of 'un the other day," said one of them. "He come to my farm to zee zome pigs. I zold 'un a couple for more than any of you would ha' gi' me, and tho' he got telling about my sheep, which I showed 'un. He said I ought ta get a different breed; and when he

saw five black ones I've a-got, he saith, 'Whatever do you keep they ugly things for? Their meat be all stringy and tough, and their wool bain't worth nought.'"

"They don't eat near so much as my white sheep, and bain't so expensive to keep," I told 'un.

"Geddout," he saith, "they eat all so much."

"I tell 'ee they don't; not by a lot," says I.

"How do you know?" says he.

"Because I've got thirty white sheep, and only five black ones," I told 'un. He got quite nifty w' me, and said I was making a fool of 'un. "I couldn't," says I, very polite; but he looked to me zo grum as any tiger, and wouldn't make no answer when I said "good morning."

"I've a-took a sight of volks in wi' that there riddle about black and white sheep," said the old man—who had hitherto taken little part in the conversation—knocking the ashes out of his long clay pipe, and fumbling in his waistcoat pocket for a fresh supply tobacco.

"There's more in thee haid than on 'un," laughed the gamekeeper. "You'm getting so bald as a haig, Granfer Daw."

"A man can't grow hair and brains, too," replied the old man in self defence; then, carrying the war into the enemy's country, he added, "Fine thatch thee'st got on thee haid, though, thick as a mat."

"I zim there must be summat wrong w' the soil where no crops won't grow," said Foxie Jack, once more coming to his friend's rescue.

Just then the landlady came into the kitchen and announced that it was nearly ten o'clock, which is closing time for public houses in the country districts; whereupon the customers finished their half-empty mugs, and with friendly good nights all round, betook themselves to their various homes.

I have endeavored to repeat the homely conversation in language as near to that which they used as I can, but it is impossible to reproduce the rich west-country burr, the curious inflection and intonation of the words, and the soft pronunciation which they give to the letter "un." I have seen words in which it occurs spelt in various ways in the attempt to give its sound, but the attempt is never successful. Take the word "due," for instance. They don't pronounce it "doo," and if you spell it "dew" (as I have seen it done), it only brings us back to the same sound; and though misspelt words may look funny on paper, they fail in giving us an accurate reproduction of a conversation. To spell cat with a "k," or me with two "ee's" may be very witty, but it does not alter the pronunciation of the words. The Devonshire people pronounce "u" as do the French; and amount of misspelling will make it clearer.—Chas. Garvie, in "A Farm in Creamland," a tale of the Devon countryside.

GOSSIP.

Aberdeen-Angus cattle and Dorset sheep are still the specialties in pure-bred stock at the well-known stock farm of A. S. Forster, at Oakville, Ont., where every year shows an improvement in the quality of the stock, due to the care exercised in the selection of herd- and flock-headers, this year, more than ever in evidence, Mr. Foster made a happy selection for chief stock bull when he selected the big, level, Mayflower-bred bull, Royal Chief of Penzance 4711, as his get are remarkably uniform, and leave little to be desired in the excellence of their breed type. To use on the daughters of this bull, the level, even bull, Middlebrook Warrior 2nd 5231, a Favorite-bred son of the Toronto champion, Hundred, has been recently purchased. The breeding females of the herd are principally of the Dewdrop and Caroline tribes, which, coupled with this young bull, should surely prove a success. At the head of the big flock of Dorset sheep is a son of the many-times champion, Imp. Romulus. He is breeding exceptionally well, his get showing great strength and breed character. Write Mr. Forster your wants to Oakdale P. O., Ont.

Are you going to the Toronto Exhibition?
August 24 to September 9

THOSE who visit the Annual Exhibition
at Toronto this year are cordially
invited to visit our

Cement Exhibit

AND

Free Demonstration Tent

YOU will find our Information Department Booth
(in Manufacturers' Annex) and our Demonstration
Tent (just behind the Art Building, beside the
Machinery Hall) among the most interesting features
of the Exhibition.

In the tent will be given daily demonstrations in
the mixing, placing and use of concrete. The booth in
the Manufacturers' Annex (in the Grand Stand) contains
an interesting exhibit, illustrating the possibilities of
concrete for farm improvement, roads, bridges, build-
ings, etc. Both will be in charge of men from the
staff of our Information Department.

Our representatives will be glad to supply you any
further information desired about the use of Cement
and Concrete.

Canada Cement Co'y, Limited

Herald Building, MONTREAL
DEALERS ALL OVER CANADA

Protection is cheaper than feed

MAKE your live stock comfortable this winter and your profits will show an increase. When you put up a new house, barn, chicken house or farm building, you want a durable roof that is not going to leak—one that retards fire. You will get this kind of a roof if you use

Certain-teed Rubber Roofing

Quality Certified Durability Guaranteed
Comes in Shingles or Rolls

Do you have to feed your chickens additional corn to keep them warm in winter? You can make your chicken house cozy, dry and warm by using Certain-teed Rubber Roofing on the sides as well as the roof. Certain-teed Rubber Roofing is made from best materials—that is why we guarantee it for 15 years—but it lasts much longer.

Valuable Book B.F. 5
"How to Build for less Money" FREE



You do not have to wade through a maze of complicated directions

to lay Certain-teed Rubber Roofing—hammer and nails only necessary. Just the thing for that chicken house or pig shelter that you want to erect quickly and yet have it light, durable and inexpensive. Certain-teed Rubber Roofing is more durable than shingles or metal and costs less.

Certain-teed Rubber Roofing is sold throughout the provinces of Canada by local dealers, and is distributed by wholesale jobbers in St. Johns, Halifax, Quebec, Montreal, Toronto, London, Vancouver, Victoria.

GENERAL ROOFING MFG. CO.
Largest Roofing and Building Paper Manufacturer in the world.
Winnipeg, Manitoba.

GOSSIP.

Geo. D. Fletcher, the well-known breeder of Shorthorn cattle, Erin Post Office, Ont., R. R. No. 1, Erin Station, C. P. R., has a herd of Scotch Shorthorns (imported and direct from imported stock) which are what might be expected from their choice breeding, and the use of such sires as were used, the last four of which are: Spicy Robin =28259=, a Watt-bred Roan Lady, and grandson of Royal Sailor (imp.), and a winner at Toronto and London Exhibitions for three years. Joy of Morning (imp.) =32070=, the Duthie-bred bull that sold for \$2,000 in Scotland, and won first prize at Dominion Exhibition, Toronto. Benachie (imp.) =69954=, the A. T. Gordon-bred Cruickshank Butterfly, and brother to Bandmaster, that won first prize at the Royal and sold for 600 guineas. The present stock bull is Royal Bruce (imp.) =55038= (89909) 273853, bred by Robert Bruce, Heatherwick, Scotland, of the Bruce Mayflower family, that produced the Toronto champion bull, Prince Sunbeam, and the two champion bulls, Robert the Bruce and Silver Chief. Royal Bruce is sired by the great Wimple bull, Winning Hope (80283), by Golden Hope, dam by Sittyton Yet (61833), from the same dam as the world-renowned William of Orange. See the advertisement in another column.

TRADE TOPIC.

LABOR-SAVING IN FARM HOMES.—It is a matter of common remark that labor-saving devices have been much more unanimously introduced in the barns and fields than in the country homes. They are coming, however, at last. It is no longer uncommon to see the vacuum cleaner in daily use in farm homes, doing the sweeping, keeping the carpets clean, dusting down the curtains, cleaning the upholstered parlor pieces, and getting the dust from this, that, and the other corner, which is in constant use, and where dust will accumulate in spite of one. At first the vacuum cleaner was put down on the list of fads that would have their day, and then be forgotten, but with their practical demonstration as real labor-savers, vacuum cleaners are being looked on to-day with the greatest of favor. They are not a costly bit of mechanism to own, either. If you want to give the vacuum cleaner a really good test, and prove what a comfort one could be made in the home life on the farm, you are invited to look up the announcement of the George H. King Company, of Woodstock, Ont., in another column of this issue, and read the "Ten days' free trial in your home" offer which they are making.

BOOK REVIEW.

THE POTATO.

"Never before in the history of the world has the production of human food received as great attention as at the present time. Population is increasing with alarming rapidity, while the supply of land on which it is possible to grow food is limited. The one solution of the problem is the production of more and better food on every acre of land on which crops are grown." Such is a part of the author's preface to a profusely-illustrated volume of 550 pages, by E. H. Grubb and W. S. Guilford, on "The Potato." "The working out of the problem calls for broad, liberal education, not the least factor of which is to benefit by the experience of others." As an educator this work should be of great value, as the entire work is based on practical experience, and various methods are outlined which are worthy of the consideration of the best growers. While they may not be taken up by all, something is to be learned from each, coming as they do, from a practical grower. The book is divided into forty-two chapters, each of which deals with a separate phase of the subject, the whole brought out more clearly by the use of nearly one hundred clear and distinct illustrations. Everything, from the importance of the potato as a food, to all the best-known means of cultivation,



Clean Basins & Sinks

may be had easily, quickly and continually by the use of

Old Dutch Cleanser

The safest, most efficient cleanser for everything about the house, barn and dairy. No dirt, grease or grime can withstand its wonderful action. The thick scum which often gathers on the sides and bottom of the sink and defies soap and soap cleaning, disappears like magic when Old Dutch Cleanser is used.

Avoid Caustics and Acids

Many other uses and Full Directions on Large Sifter-can
10¢

The Western Fair

LONDON'S POPULAR EXHIBITION

September 6th to 14th

This will be the banner year. Stockmen and breeders cannot afford to miss the opportunity of exhibiting their stock at London. This exhibition always brings buyers.

\$25,000 IN PRIZES AND ATTRACTIONS

Live stock parade daily. Two speed events each day.

Dog Show commences Tuesday, Sept. 10th

Wonderful programme of attractions twice daily. Besses O' the Barn Band, the great English musical combination. Do not fail to hear them. Special railway rates over all railroads in Western Ontario.

Grand Stand Prices - 15, 25 and 50 cts.

W. J. REID, President.

A. M. HUNT, Secretary

Ontario Maple-syrup Makers

TAKE A DAY OFF AND GO TO THE FAIR

We will show one of our many sizes of evaporators, and a full line of the most improved Sugar and Sugar-makers' Supplies at the following exhibits: In Industrial Building, Toronto; Machinery Hall, Ottawa and London; with competent demonstrators in charge. CALL AND SEE US. THE GRIMM MFG. CO., Limited, 56 and 58 Wellington St., Montreal, Que.



When Writing Advertisers, Please Mention "The Farmer's Advocate"

T-A Wheels

Defy Bad Roads

These Wide-Tire Steel Wheels are built especially to overcome the troubles of traveling over rocky, sandy or muddy roads. They carry 25 to 50 per cent. heavier loads without causing any heavier draft on the horses.



Built low for ease of loading and unloading.

Get a T-A Handy Farm Wagon—it's just the kind you need on your farm. This sturdy little wagon will get over the ground quicker and with less strain on your horses than any other wagon that's made.

Tudhope-Anderson Co'y, Ltd.
Orillia, Ontario

Drop us a card and get our catalogue telling all about

T-A Wide-Tire Steel Wheels & Handy Farm Wagons

tion, storing, and everything in connection with practical potato production, is discussed. Fertilizers and diseases are gone into thoroughly. Potato history and the botany of the plant, form subjects of separate chapters. There is something good for all who are in any way interested in this important crop, and we all are in one way or another, as producers or consumers. This new work may be had through this office at \$2.25, postpaid.



Better Butter And Better Prices

These are the two big reasons why you should use Windsor Dairy Salt.

If you make your living out of the butter you sell, then anything that will make the butter better will make more money for you.

WINDSOR DAIRY SALT

has proved its quality and superiority in thousands of dairies and in hundreds of contests.

Successful creamery men have used and are still using Windsor Dairy Salt—because it gives them the best results always.

Are YOU using it?

71D

WINDSOR SALT swept the boards at all fairs last season, and is doing the same thing this year.



Practically every prize for butter and cheese making is being won by those who use WINDSOR SALT.



If you want to win prizes, use

WINDSOR SALT



Cheese Makers !

Just Remember This—

Windsor Cheese Salt will make money for you, by making better cheese for you.

Windsor Cheese Salt improves both the flavor and the keeping quality.

Windsor Cheese Salt enables you to salt the curd just right, because it dissolves slowly and evenly—stays in the curd—and because it is pure and clean and good.

Windsor Cheese Salt is cheap, because, being ALL SALT, it goes further.

Make your cheese bring you better prices by using 75C

WINDSOR CHEESE SALT

Buy Your Litter Carrier Direct From Our Factory and Save Agent's Commission

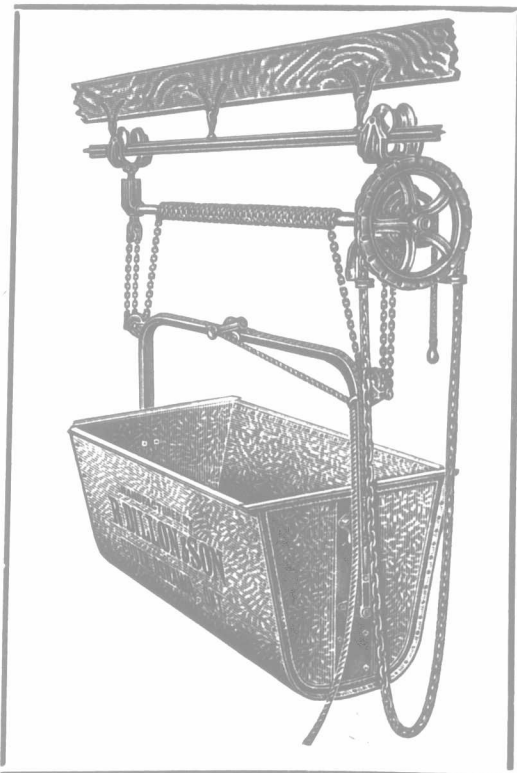
Write us for our prices and proposition before buying.

We can save you 30% on the price of your outfit, and we stand behind our goods.

We pay the freight to your nearest station.



SATISFACTION
GUARANTEED
OR MONEY
REFUNDED



Compare it with other makes and you will decide as hundreds of other have and buy a Dillon No. 2 Litter Carrier and join the list of our satisfied customers.

You can keep your stables and barn-yard-cleaner by using a Litter Carrier and do it easier and cheaper.

It will pay for itself by Spring in the time saved.

It is easy to operate and simple in construction.

R. DILLON & SON - OSHAWA, ONTARIO

OUR LINE INCLUDES

Stanchions, Hay Carriers, Forks, Slings, Barn Door Hangers and Latches, Etc.

HOW MUCH?



YOU KNOW how much butter-fat there is in the cream which you sell. Do you know how much plant food there is in the fertilizer which you buy — or do you leave it to the agent and let him send you any kind of fer-

tilizer he sells, at what seems to be a reasonable price?

Are you getting as much phosphoric acid as you need in an available form to perfectly ripen the wheat berry so that it will turn out plump hard A-1 grade?

HOMESTEAD

BONE BLACK FERTILIZERS

are known as crop producers and every analysis is guaranteed to be as represented. They are easily applied because they are so finely ground. They can be sown with a grain drill before planting or scattered by hand from the wagon if you have no drill, and then harrowed in.

At Dashwood, Ontario, Louis Walper says: "I had one of the biggest crops ever seen on this farm, following the use of 'HOMESTEAD' fertilizers."

At Thetford, Ontario, Wilson Bros., say: "We are well satisfied that it does not pay to sow wheat without them," and Mr. H. Wilson of the same place writes: "Each year I sow a piece without fertilizer and the difference is so great I am fully convinced it does not pay me to sow wheat without the 'HOMESTEAD'."

At Arkona, Ontario, Mr. J. A. Gordon says: "I have used 'HOMESTEAD' fertilizer about five years. The first year I shut it off once across the field and my neighbor said he could see that strip 8 rods away; and it could be seen two years afterward in the meadow, so I think it pays all right."

Every farmer should read our 52 page book on Fertilizers and "How to Fight Drouth with Fertility," sent free, postage paid. Write us today and tell your friends to do the same.

WE WANT AGENTS FOR UNOCCUPIED TERRITORY

The American Agricultural Chemical Co.

Michigan Carbon Works, Detroit, Mich.

The sure way to determine goodness is by

TEST

Amherst Solid Shoes have been tried and tested since Confederation year, and have **not** been **disappointing**.

Just say

AMHERST

At any up-to-date store from Sydney to Vancouver and get supplied. Distributing warehouse for the Western trade is

Amherst Central Shoe Co.

LIMITED

REGINA,

SASK.

When Writing Advertisers, Please Mention "The Farmer's Advocate"

QUESTIONS AND ANSWERS.

1st.—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.

2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.

3rd.—In Veterinary questions the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

Miscellaneous.

TWO GRASSES.

What are the enclosed plants? Are they useful or are they noxious? Is No. 1 any good for pasture?

E. A. B.

Ans.—No. 1 is orchard grass, a very useful pasture and hay grass when sown in mixtures with other grasses. No. 2 is couch grass, a noxious weed, which only most thorough cultivation and smother crops will eradicate.

AWNLESS BROME GRASS.

Enclosed you will find the head of a grass, or weed. The plant is almost like the twitch or couch grass, but as you will see the head is very different. Some tell me it is what is called tall oat grass, but as I could not get a descrip-

tion of it in "Farm Weeds of Canada," I am sending the question. M. S. S.

Ans.—The panicle of the grass sent was not in very good condition upon arrival, but it is evident that it is not tall oat grass, but a grass known as awnless brome grass (*Bromus inermis*), a grass grown in mixtures in Hungary, but not very profitable in this country.

PASTURING ALSIKE—HORSE TOSSES HEAD.

1. Would it be advisable to pasture a catch of alsike this fall, or would it be better to keep the cattle off it?

2. I have a horse, which, when I drive him on the road and tie him in the shed, throws his head up as though bees were at him. H. W.

Ans.—1. It is not generally advisable to pasture alsike clover seeding in the fall.

2. He may be checked too tightly, and tosses his head to relieve his aching neck.

RULE OF ROAD.

Teamster, with a heavy load, climbing a hill, is approached from behind by an automobile which desires to pass. Does the law require the teamster to turn out and give the automobile half the road? There would be room for the auto to pass on one side without the

teamster turning out at all. What is the general rule of the road? L. T.

Ans.—Where there is plenty of room to pass and the road is good, a considerate driver would not expect the driver of the heavy load to turn out, but all vehicles are obliged to give vehicles overtaking them from behind and desiring to go faster, half the road. The front rig should keep to the right, allowing the other to pass on the left side.

TRADE TOPIC.

BIG ATTRACTION FOR OTTAWA EXHIBITION.—The official programme for the Dominion Exhibition and 25th annual Central Canada Fair, to be held jointly in Ottawa, from September 5th to 16th, is now available to anyone who applies for it to the office in Ottawa. The booklet contains a terse summary of the big features arranged for the great Exhibition. The \$50,000 federal grant, with the prestige of the Dominion Exhibition, gives the enterprise a unique advantage over any other fair in Canada. On Ottawa's hundred acres of fair ground will assemble thousands of well-bred animals and the rarest products of the field, in competition for \$30,000 in prizes. Four immense pavilions will team with manufactured wares, varying from tiny novelties to massive machinery. New uses for labor-saving contrivances will

be taught by demonstrations that impart information while they entertain the visitor. Government experts will carry out a large programme of educational work. Five Provinces and two States enjoy excursion rates to the Dominion Exhibition at one-third the usual cost of travel. The policy of assisting far-off producers to bear freight charges has drawn exhibits in carloads from the remotest parts of Canada. British Columbia will be represented by many splendid displays, and all other Provinces in like proportion. For horse races, jumping, etc., there is \$5,000 in premiums, and every attraction is high class. Six-for-a-dollar tickets, good at the gate any time, and grand stand in the afternoon, are on sale all this month.

Charles F. Murphy, leader of Tammany Hall, sat in a Baltimore hotel restaurant. A waiter, carrying a dish on which there had been a slab of roast beef and some gravy, held the dish at such an angle that most of the gravy remaining dripped on Murphy's coat. Murphy looked at the waiter inquiringly.

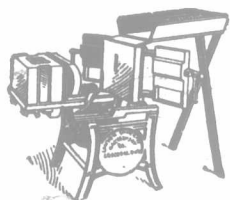
"There now," soothed the waiter as he dabbed at the gravy with a towel—"that's all right. Be a good sport and I'll get you some more gravy for nothing!"—Saturday Evening Post.

London Concrete Machinery Co., Ltd.

LONDON, CANADA

Are the Largest Manufacturers of Concrete Machinery in Canada

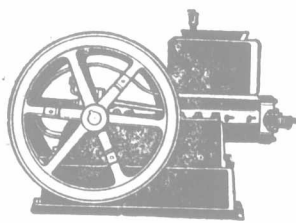
If you purpose erecting a silo, a dwelling or building of any class, write us first for illustrated catalogues and price list of our Concrete Machinery. It will pay you to do it.



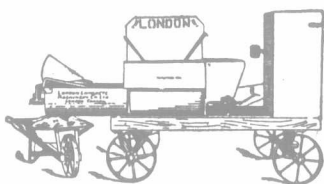
The London Adjustable Concrete Block Machine makes every kind and size of block. High-grade, moderate price.



Build Concrete Silos, any size, with the London Adjustable Silo Curbs.



Standard Gasoline Engine. Every one sold on a strong guarantee. Ask for our catalogue.



London Automatic Concrete Mixer does any kind of mixing, automatically measures and mixes.

We have the largest line of Concrete Machinery of any firm in the world. Write us to-day for full descriptive catalogues.

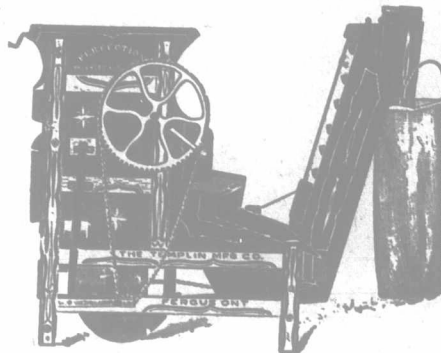
London Concrete Machinery Co., Ltd.

Dept. B.

LONDON, CANADA

PERFECTION SEED AND GRAIN SEPARATORS

Are used exclusively on the Government Farms at the O. A. C. (Guelph), Harrow (Ont.), Truro (N. S.), and Charlottetown (P. E. I.), after testing other makes. They cost a little more than the old style. So does your binder more than the reaper or cradle. Other mills are being thrown away daily for the Perfection, when a trial is made. The Perfection is guaranteed to turn twice as easy as any other mill, will do work no other mill will attempt, will do it faster than others, and do it right. Built on an entirely new principle. Has greater screening capacity. The fan at the bottom merely blows out the chaff after the complete separation of the grains and weeds. With other manufacturers we refused to exhibit outside at Toronto this year. Fuller description in free circular "A." See nearest agent or write:



THE TEMPLIN MFG. CO., FERGUS, ONT.

Over 1,000 Gallons of Water Pumped With 1 Pint of Gasoline

That's what you can secure with the Eclipse Pumper. This reliable little pumping engine will pump from 200 to 4,000 gallons of water per hour—depending on type and size of pump and lift—and do it on 1 pint of gasoline.

Fairbanks-Morse Eclipse Pumper

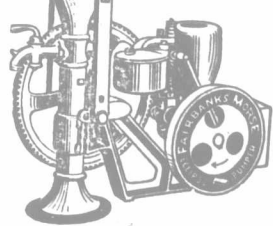
frees you from the labor of pumping by hand and makes you independent of wind or weather. The Eclipse Pumper can be attached to any windmill pump without special attachments.

This powerful pumping engine is simple, has no complicated parts to get out of order. It is reasonably priced and absolutely guaranteed. It makes possible a modern water system with all its conveniences at a very low cost.

Write for Descriptive Pamphlet No. MN 2524.

The Canadian Fairbanks-Morse Co., Limited
444 St. James St., Montreal

This shows the Eclipse Pumper attached to an ordinary windmill pump



QUESTIONS AND ANSWERS. Miscellaneous.

RATS AND WEASELS—CHEAP ICE HOUSE.

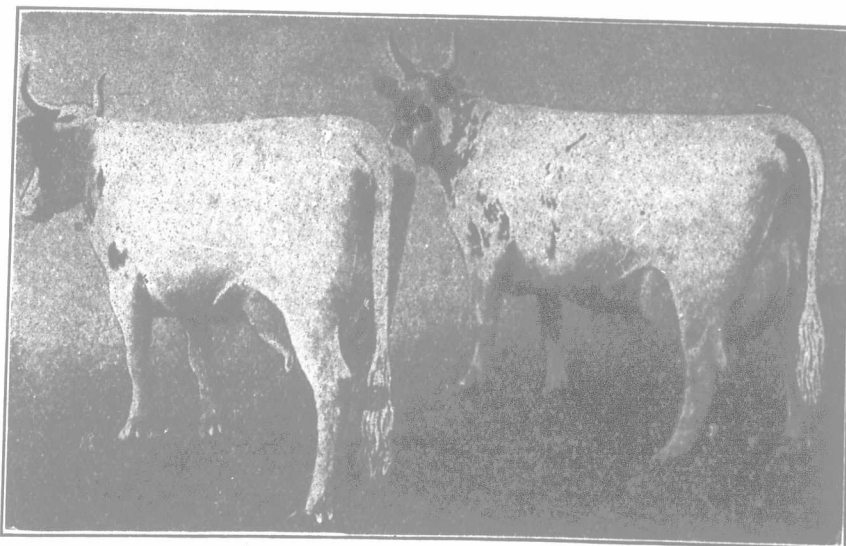
1. We are greatly troubled with both rats and weasels, our poultry being fairly decimated by them. Should be glad to know of a good plan of clearing them.
2. Could you advise a good way, at a moderate cost, to build store-house for ice?

A. I. W.

Ans.—1. We had personal experience with both these pests last year, though the rats did not appear to trouble the poultry. The weasels did, however. There were a pair of them, and they stayed around till they were shot. Owing to their boldness shooting is not impracticable for a good marksman. We caught one of them once in a steel trap, but the jaw had too scant a hold and the animal got away. Traps set in their runways will sometimes get weasels. The rats were fought with traps, poison of different kinds, including two or three proprietary articles, with cement floors, and with cats. If not exterminated, they have been so reduced in numbers that not one has been seen for months. Cement floors and cats are the best combination.

2. An ice house is the simplest building one can erect. All it needs is a weather-tight roof, and sides that will hold sawdust, though it is well that the sides, like the roof, be weather tight to keep the sawdust from getting wet. Good drainage to carry off the melting ice water is also very important. Cedar posts set in the ground and connected with scantling, may be made to answer for a frame. Of course, more elaborate ice houses may be erected, and are probably economical. An entrance partitioned off from the bin is convenient. We are building an ice house this year, designed to keep ice without packing in sawdust at all, but you asked for an inexpensive plan.

STONEHOUSE AYRSHIRES



Offerings from this herd include some choice two and three-year-old heifers in calf to Hillhouse Free Trader (Imp.), Grand Champion Bull of the Western Shows of 1912.

Also some choice young bulls sired by Auchenbrain His Eminence, reserve champion of Chicago, 1911.

See this herd before making selections.

HECTOR GORDON,
Howick, Quebec

HORSE POWER.

What difference is there between a Canadian horse-power and an American, in poundage on the break for testing?

A. M. C.

Ans.—The horse-power used by English, American, and Canadian engineers, is that power which will lift 550 pounds 1 foot per second, or 33,000 pounds 1 foot per minute, or power capable of doing 550 foot-pounds of work per second.

WARTS—SERVICE OF BULL—POULTRY AND MILK QUERIES.

1. Is there any cure for warts on cows' teats, and what is it?
2. I have a young Holstein bull about a year and a half old that is at the service of the public. How long should it be between each time he serves a cow so as not to spoil his growth?
3. When should a rooster be put with hens, so as to have hatching eggs in May, and how many roosters would be required with 40 hens?
4. Can there be a difference in weight between a gallon of milk from one cow and a gallon from another? I have read in a certain paper about a cow giving 108 lbs. of milk, and this was said to be 13½ gallons. How can they make this out?

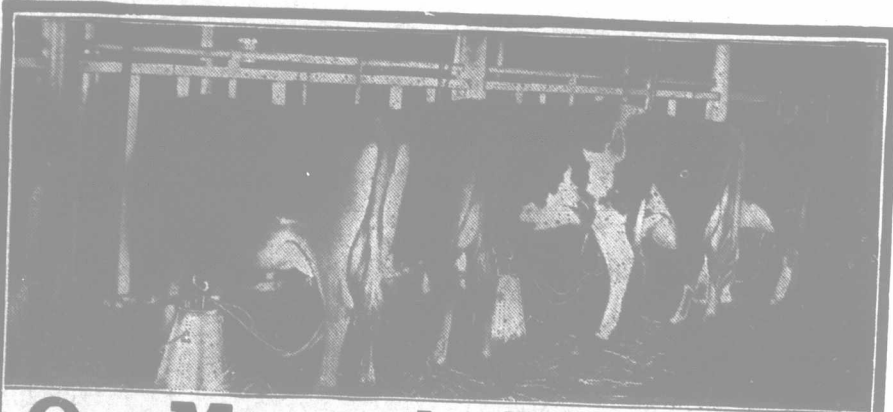
SUBSCRIBER.

Ans.—1. If slim necked, clip them off. Some have taken them off by repeated use of castor oil. Butter of antimony, applied with a feather, will remove them. Treat when the cow is dry.

2. Questions like this cannot be definitely answered, as all conditions are not known. Forty to fifty cows during the season should be all he should serve, and not more than one a day unless under special circumstances, when one might be served in the morning and one at night.

3. Mate them up five or six weeks before chickens are wanted, or about three weeks before eggs are used for hatching purposes. Three of the heavier breeds breeds and two of the lighter.

4. Was it an American paper. Their gallons differ from ours.



One Man and a Boy Do the Work of Four Good Men

One man and a boy (to carry milk and assist) milk 100 cows in two hours with a Sharples Mechanical Milker.

Just think of what that means. Think of the relief from the long hours of awful drudgery twice a day. Think of the freedom from worry and unreliable "hired help". Think of the extra profit—at least \$15 more per cow each year—you can make with a Sharples Milker. Think of the opportunity you have of doubling your herd, thus more than doubling your dairy profits without increasing the labor expense a cent.

These are but a few of the many advantages of

The Sharples Mechanical Milker

The one recognized successful milker on the market today. Used in the world's finest and largest dairies. Over five hundred of these machines in regular use.

"The Sharples Milker produces cleaner milk than hand milking and is easy to keep clean. I do not see how it can affect the cows, or affect the milk flow except a tendency to increase it by the uniformity of its milking. We are handling a herd of 140 cows with one-third the labor that was required before. Very truly yours, John V. Bishop."

One secret of the success of The Sharples Milker is

"The Patented Teat Cup With the Upward Squeeze"

Instead of continually drawing the blood down with the milk as ordinary suction machines do, it gives the teat a gentle "upward" squeeze after each suction or pulsation, and thus avoids the congestion, swelling, soreness and other objections. We can't explain it all here. Just send for Catalog and see for yourself the wonderful advantages of this wonderful machine. We gladly put them in and give you ample time for trial.

A Postal Brings Catalog M

THE SHARPLES SEPARATOR CO. WEST CHESTER, PA.
Toronto, Can. Winnipeg, Can. **BRANCHES:**
Agencies Everywhere

Save Money On Your Cement Silo

IT IS mighty hard work and an expensive proposition to place the last eight or twelve feet of concrete on a cement silo.

To give the best results a silo should be at least thirty feet high. The last ten feet—handling the heavy concrete at a considerable height and under unfavorable conditions—requires skilled labor. It will cost you more in time and trouble than the rest of the job put together.

Save yourself this hard work and cut down building expenses by using steel plate construction to replace the concrete at the top of your silo.

The steel plate comes to you all ready for erecting. It is light, can be readily handled, is rolled, punched and marked for quick assembling. You and your own help can put it up. It doesn't need a boilermaker or a contractor to put the plates together. All you need do is to follow the marks and know how to swing a hammer.

Write for prices and full particulars to-day.

The Waterous Engine Works Co., Ltd.
BRANTFORD, CANADA.

When Writing Advertisers, Please Mention "The Farmer's Advocate"



The plate is rolled to 10, 12 and 14 feet diameters. Each course is made 4 feet high. Two or three courses placed on top of your cement base will extend your silo the necessary height. What's more—and this is important—if your corn crop is larger than you figure on, you can add a course at any time.

That this steel plate is durable, is storm, shrinkage and frost proof and that it will keep ensilage in 20% better shape than stone, cement or wood has been thoroughly demonstrated in the numerous steel silos built by Canadian farmers in the last ten years.

As for prices—this plate, with rivets supplied—will cost you no more than the cement and gravel required for the same amount of work.

QUESTIONS AND ANSWERS. Miscellaneous.

YARROW.

Would you kindly give me the name of the enclosed weed, which is very numerous here?
N. A. W.

Ans.—The weed is yarrow, or milfoil (*Achillea millefolium*).

TREATING WHEAT FOR SMUT.

Would you give information as to whether wheat can be treated before sowing so as to avoid rust or smut. I have heard something about a solution of bluestone sprinkled over it to prevent this, but do not know the proportions. I would be grateful to you for any help. My wheat is bad this year (with smut), and I am told that by sowing this again am likely to infect next year's crop.
J. S. P.

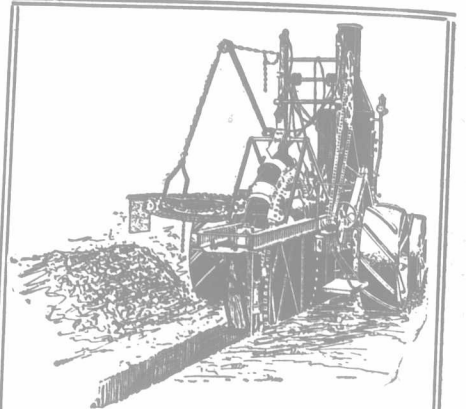
Ans.—For stinking smut or bunt of wheat, a pound or pint of commercial 40-per-cent. formaldehyde is mixed with 40 gallons of water. The seed is spread out on the granary or barn floor, and thoroughly sprinkled with the solution, and shovelled over until each grain is moistened. It is then shovelled into a heap and covered closely with canvas or tarpaulin for two or three hours. The flour bags and drill should be sterilized. Copper sulphate 2 pounds to 50 gallons, is sometimes used, the grain being immersed for 12 hours in this, and afterwards 5 minutes in milk of lime, 2 lbs. of lime to 20 gals. water.

GARDEN AND POULTRY QUERIES.

1. Do tomatoes yield better when the plants are staked up than when they are laying down?
2. What variety of red raspberries do you recommend for being hardiest and best yielders?
3. What variety of white raspberry do you recommend?
4. When is it most satisfactory to transplant them, in spring or fall? How far apart should the rows be, and how far apart in the rows?
5. What care should be given them to obtain best results?
6. What age asparagus roots would you advise setting out? What variety?
7. When should they be transplanted in order to grow most successfully, in spring or fall? How would you prepare the bed, and how would you plant it out?
8. In order to obtain best results from chickens, that is to fatten them as quickly as possible for the market, with least expense as possible, what would you feed them, how often, and to what proportion?
H. I.

Ans.—1. Staking has no great effect upon the yield. It is practiced to prevent rot, by keeping the plants up off the damp ground, and to allow of the admittance of sunlight, hastening ripening.

2. Marlboro, Herbert, and Cuthbert, are good.
3. White raspberries are not in demand on the market. Golden Queen is a good variety.
4. Spring is usually considered best, but they may be planted in the fall. Plant in rows six feet apart, and three feet apart in the rows.
5. Plant in good clay loam, and keep thoroughly cultivated to retain moisture and keep down weeds and grass. Thin out the canes, leaving seven or eight strong ones to a hill each fall. If they grow too long, cut them back in the fall.
6. Some use two-year-old plants; others grow it from the seed. Conover's Colossal and Palmetto are recommended.
7. Always in spring. Manure the land well, and work it thoroughly and deep. Mark it into squares three feet each way, and plant six inches deep at the squares.
8. To fatten chickens, place them in crates and feed on wet mash, moistened with milk to the consistency of a porridge. A good ration is 2 parts finely-ground oats, 2 parts finely-ground buckwheat, and 1 of finely-ground corn. Feed lightly at first, and keep the birds' appetites keen, gradually increasing the amount until they are getting all they will eat. Feed 3 times daily first week, and twice daily afterwards.



You Can Own a Good Business Within a Year

THERE are very few businesses that will pay back the whole investment inside of a year, yet many men have done this with a

BUCKEYE TRACTION DITCHER

A gasoline or steam machine will dig 100 to 150 rods of ditch a day, according to earth and soil conditions. One man can operate the gasoline or fit, or two men the steamer. You can make \$15 to \$18 a day, 9 or ten months in the year. At the end of a year you will have your investment back and will own a good paying business.

Always a Big Demand for Ditching

Hundreds of BUCKEYE owners have work ahead for months. Farmers want machine-made ditches, because they are better and true to grade. Write to-day for Catalogue T, and for information about what other men have done.

The Buckeye Traction Ditcher Co.
FINDLAY, OHIO

PROTEIN

IS WHAT YOU NEED

It Produces Milk

DON'T use low protein feeds. There's no profit in them. When you buy feed you purchase it only for the protein value. You raise a sufficient amount of starchy feeds on your own farm.

Buy Farmer Brand Cotton Seed Meal

It's cheaper than any other feed. This is due to the fact that it contains more "protein," the milk-producing element, than any other feed. Write for our free booklet, "Feed Facts," containing valuable information and rations. Ask for prices on "Farmer Brand" in carloads or less.

THE BARTLETT CO.
Dept. F. D., 410 Hammond Bldg.
DETROIT, MICH.

GOSSIP.

Herbert Theal, breeder of Dorset Horn sheep, Fulton, Lincoln Co., Ont., writes, in ordering change of advertisement, that he fully expected exhibiting at Toronto this year, but circumstances have developed which prevents his doing so. The sheep are in good condition, and some choice offerings are being made, among them being the three-shear flock-header which has proved himself a splendid stock-getter. Two prizewinning shearling rams are offered, and a number of choice ewes, ewe and ram lambs. See the advertisement in another column.

"Foods that Feed the Foods that Feed the World" DAVIES' HIGH-GRADE

FERTILIZERS

Mixed Brands for all Crops and soils, Nitrate of Soda, Acid Phosphate, German Potash Salts, Basic Slag, Sulphate of Ammonia, Lime, Agricultural Salt, Bone Meal, Blood Meal, Rock Phosphate, etc.

POULTRY FOODS

Coarse, Medium and Fine Poultry Bone, Blood Meat and Bone Mixture, Beef Scraps, Blood Meal Food, Meat Meal Mash Food, Raw Bone, Charcoal, Oyster Shell, Grit, etc.

STOCK FOODS

Feeding Tankage, Blood Meal Food, Calf Meal, etc.

Ground Rock Phosphate for a stable absorbent, Rock Salt, etc., etc.

Visit our booth during the Toronto, London and Ottawa Fairs—inspect our samples and crop exhibit—compare them with those of our competitors and judge for yourself which "are the best, bar none"—obtain full information from our men in charge, or write now for literature.

DEALERS WANTED EVERYWHERE IN ONTARIO

THE WILLIAM DAVIES COMPANY, Limited, Toronto, Ont.

You Need This Light, Most Every Night
Indoors—outdoors—in the stable and driving shed—hundreds of times—in dozens of places—you need the



"NINE LIVES" ELECTRIC FLASHLIGHT

with its bright but economical little Tungsten incandescent lamp. Compact, handy, and safe! Easily carried in your pocket or under your arm. Simply press the button and you have instantaneous flash. Can't set fire to anything.

We'll send you "Nine Lives" Electric Flashlight fully prepaid. Pocket type for \$1.50, Tubular type for \$2.00. It's too convenient to be without—write to-day.

CANADIAN CARBON CO., Limited
96 King St. West Toronto

GOSSIP.

The Morrison Stock Farm, Chas. Currie, proprietor, Morrison, Ont., is offering at present four choice Shorthorn bull calves which will make show-yard winners, and some heifer calves, sired by Prime Lad, son of the grand champion bull, Prime Favorite (imp.). These calves are from six to ten months old, and are out of large, heavy-milking dams, choicely bred. Some two-year-old heifers, due to calve this fall, and also choice Tamworths of both sexes and all ages, including young sows in farrow, and choice boars from two months to eight months old, bred from the prize-winning herds of England, are also offered at reasonable prices. Satisfaction guaranteed.

STOCK-JUDGING DATES AT TORONTO

In the prize list of the Canadian National Exhibition, the following dates are fixed for judging live stock:

Cattle.—Dairy Classes: Ayrshires and Holsteins, Thursday, August 29th.
Jerseys, Guernseys, and grade cattle, Friday, August 30th.
Beef Classes.—Shorthorns, Saturday, August 31st.
Herefords, Aberdeen-Angus, and Galloways, Monday, September 2nd.
Grade and fat cattle, Tuesday, September 3rd.
Sheep.—Thursday, August 29th, Leicesters and Oxfords.
Friday, August 30th, Cotswolds, and Shropshires.
Saturday, August 31st, Southdowns, Dorsets, Lincolns and Hampshires.

Dates for judging swine are not published in the prize list. The judging of horses will take place on the days and at the hours stated in the judging programme.

CHEVELY MODEST.

Robt. McEwen, Byron, Ont., had the good fortune this spring to secure the splendid Southdown ram, Chevely Modest (imp.), a photograph of which appears elsewhere in this issue, to head his flock. This ram was first wherever shown last year, at the Chicago International, at all the Northern State Fairs, and was champion at the winter sheep show at Omaha. He was imported in 1911 by Chas. Leet & Son, of Mantua, Ohio, from the flock of Mr. D. H. B. McCalmont, of Newmarket, Eng., and Mr. Leet believes him to be one of the best Southdown rams that ever came to this continent. This ram should nick well with the Alloway Lodge flock, as he is from a strain that has never been used in that flock before, and has that masculine, yet typey head, that denotes a prepotent sire. Though he is to be used for service this year and is not highly fitted, he will be on exhibition at the Toronto and London Shows, with a few representatives from the flock with which he is to be mated.



London and Ottawa
CLAY Gates can be seen at both the Ottawa and London Fairs. Since Clay Gates are easily the best farm gates made, you should make it a special object to visit our Exhibit.

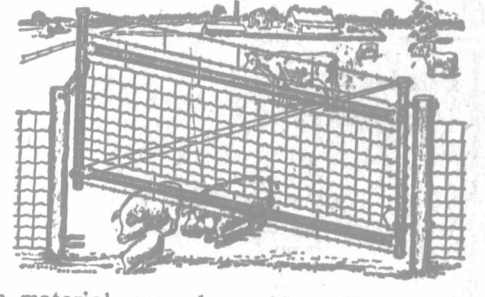
H. RALPH STEELE, Manager.

Steel Farm Gates

THE illustration below indicates an outstanding merit of all Clay Gates, namely, the ability to raise them as shown to let small stock through, or to lift over snow in winter. This adjustment is done in a twinkling—without tools.

Clay Gates are the best Gates Made

because they (1) last a lifetime; (2) cannot bend, break, sag, burn, blow down, or rot; (3) positively keep back breachy cattle; (4) can be raised as shown below; (5) are made of high carbon steel tubing of large diameter—far superior to gas pipe, tee or angle iron; (6) are guaranteed (see below). You can prove Clay Gates before buying them. Note our offer to send Clay Gates for



60 Days' Free Trial

We will send you one or a dozen Clay Gates for 60 days' free trial, without expense or obligation on your part. 20,000 Clay Gates sold last year on these terms. Note also

Our Guarantee

Clay Gates are guaranteed against any defects whatsoever in material or workmanship. We will replace free any parts, or the entire gate, giving out for such reasons. If not convenient to see our gates demonstrated at the London and Ottawa Fairs, send for illustrated price list. A gate for every purpose. Have convenient Clay Gates for next winter.

The CANADIAN GATE CO., Ltd., 34 Morris St., GUELPH, ONT.

GRAND TRUNK RAILWAY SYSTEM

Homeseekers' Excursions

July 23 August 6 and 20
September 3 and 17
Via Sarnia or Chicago.

WINNIPEG AND RETURN, - \$34.00
EDMONTON AND RETURN, - \$42.00

Tickets good for 60 days.
NO CHANGE OF CARS

Special train will leave Toronto 10.30 p.m. on above dates, via Chicago and St. Paul, carrying through coaches and Pullman Tourist Sleeping Cars.

The Grand Trunk Pacific Railway is the shortest and quickest route between Winnipeg—Saskatoon—Edmonton.

New Fast Express Service between Winnipeg, Yorkton, Canora and Regina. Smooth roadbed, Electric lighted Sleeping Cars, Superb Dining Car Service.

Lv. Winnipeg,	8.45 am	6.00 pm
Ar. Yorkton,	7.10 pm	9.30 am
Ar. Canora,	8.30 pm	11.45 am
Ar. Regina,	9.00 pm	7.00 am
Ar. Saskatoon,		8.18 am
Ar. Edmonton,		9.00 pm

UPPER LAKE SAILINGS

Sailings from Sarnia for Sault Ste. Marie and Port Arthur 3.30 p.m. Mondays, Wednesdays and Saturdays.

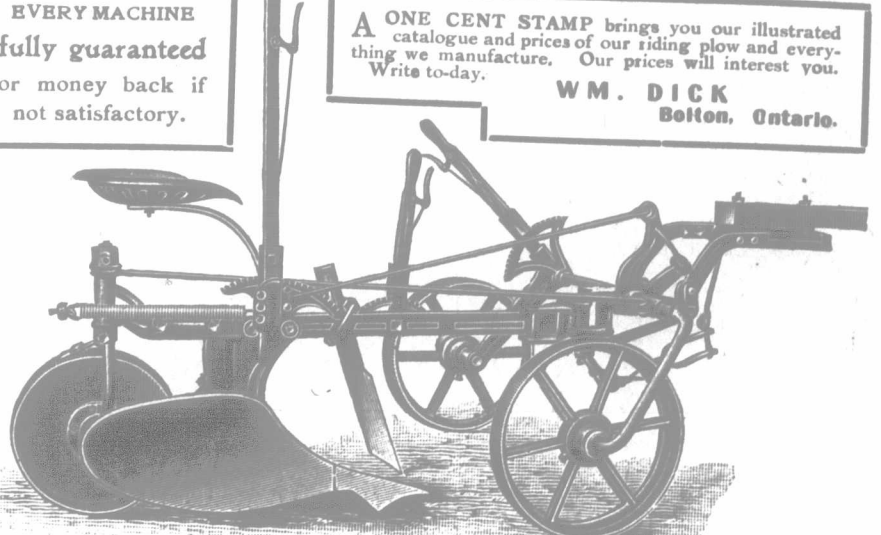
Ask any Grand Trunk Agent for full information, or write

A. E. DUFF, D. P. A.,
Union Station, Toronto, Ont.

EVERY MACHINE fully guaranteed or money back if not satisfactory.

A ONE CENT STAMP brings you our illustrated catalogue and prices of our riding plow and everything we manufacture. Our prices will interest you. Write to-day.

WM. DICK
Belton, Ontario.

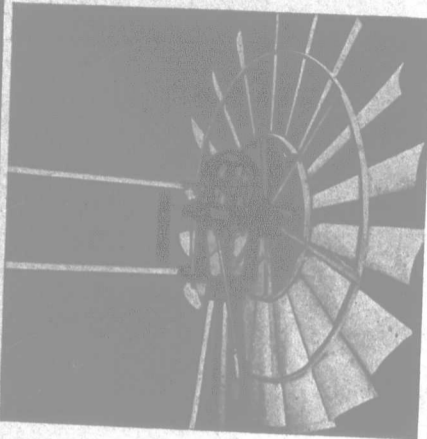


ADVOCATE ADVERTISEMENTS PAY.

Dominion Well Supply Co., Ltd.

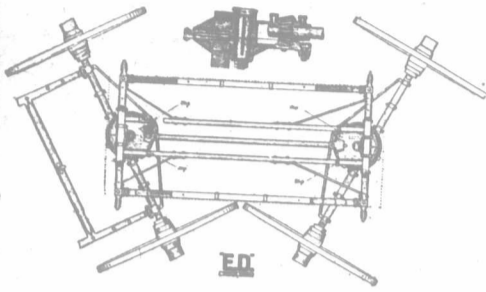
Cargill, Ontario.

DOMINION WIND ENGINE



The best Wind Engine in Canada.

'E. D.' SHORT TURN GEARS



We are the only firm that have the sole and exclusive right to manufacture these gears in Canada.



Opportunities come very seldom in life. Don't miss this one. It is on our stand at the Toronto and London Exhibitions. Have it explained and demonstrated to you. We are confident of your action afterwards.

Satisfy yourself as to the truth of the above statement at our stand at Toronto Exhibition, or at our works, Cargill, Ont., before buying. We know you can't help yourself, you must buy. Everybody is looking for the best—you are a part of everybody.

DOMINION WELL SUPPLY CO., LTD.

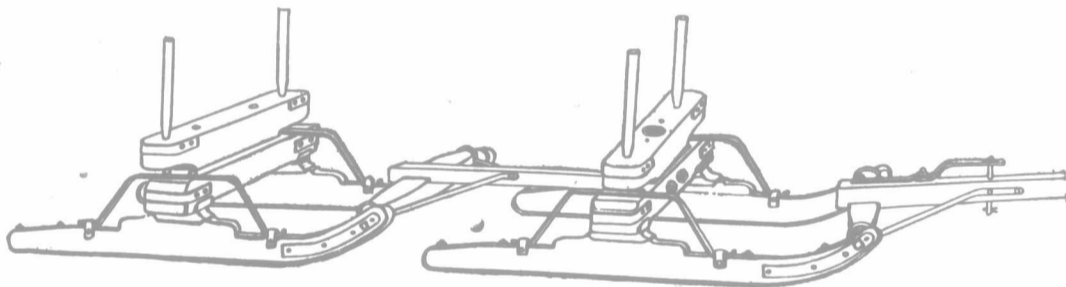
CARGILL, ONT.

The Noxon Sleigh Made by The Noxon Co., Limited

Ingersoll, Ont.

Strong Durable Light Running

WE CAN GIVE YOU A GOOD DEAL

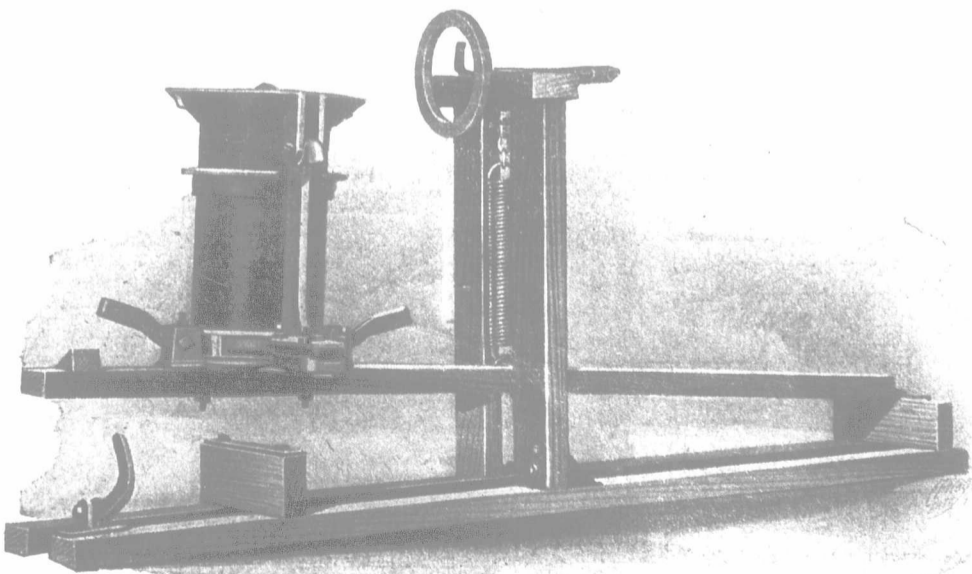


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Agents Wanted to Handle Our Machines

Drills
Disc Harrows For One, Two and Three Horses
Spring Tooth Harrows
Spike Tooth Harrows
Pulpers
Sleighs

WRITE TO-DAY FOR PARTICULARS



Farmers should profit by their past experience

Drain your land with cement tile and get an early crop. A

Sure-Shut Tile Machine

will do the trick. Price \$25. For information and literature, write.

WILLIAM JOY
Box 278
Napanee, Ontario

QUESTIONS AND ANSWERS. Miscellaneous.

WATERPROOFING CONCRETE.

Would you advise putting pitch in cement to keep down dampness?

J. S. B.

Ans.—We would not advise putting pitch in cement to make it waterproof, but it might be applied to the outside as a surface coating if desired. Plastering with a rich mortar might be preferable, however. Hydrated lime may be added to the dry cement mixture in the proportions of 1 of lime to 20 of cement. A great deal can be done by merely using the ordinary materials, making a very rich mixture, say, one of cement to four of clean gravel, or as near that as economy will allow.

ROCKET.

Find enclosed a plant which I found when cutting a piece of barley, which I seeded to alfalfa last May. This is a new weed entirely to me. Let me know what it is.

J. N.

Ans.—The weed is rocket, a hairy annual, somewhat resembling wild mustard. Dark purple veins on the lobes of the corolla of the flower distinguish it. The pods are shorter than those of wild mustard, stand upright on the stock, and have a broad, flat beak. The seed is olive-brown in color, and a bitter taste. Pull or cut it to prevent seeding. As it belongs to the mustard family, it should never be allowed to mature its seed.

CHICORY, NOT RAGWEED.

Will you kindly tell me, through "The Farmer's Advocate," if the enclosed plant is ragweed? If not, does ragweed resemble this?

E. W. S.

Ans.—The enclosed plant is not ragweed, but chicory. The two weeds do not resemble each other at all. Chicory is a deep-rooted perennial, with bright blue to purple flowers. It is a coarse-growing roadside weed, which yields readily to cultivation. Ragweed is a coarse, branching annual, with much-cut-up leaves, smooth above and downy beneath. Flowers are very small, cup-shaped, nodding, stamens yellow, pistil purplish.

ARSENATE OF LEAD FOR POTATOES.

I used arsenate of lead this summer for potato bugs, as it was recommended by our representative from Guelph. It did not kill them, but I noticed they did not lay eggs on the ones sprayed. I followed directions on tin—a little stronger, if anything. Please give me some particulars as to the strength it should be.

C. H.

Ans.—Arsenate of lead, 3½ pounds 40 gallons water, should kill your potato bugs. This, it will be noted, is considerably stronger than the mixture used for spraying trees. If you used these proportions, and took pains to dissolve the arsenate in a little water before putting it into the barrel, you should have had satisfactory results.

Hail Insurance in Austria.

The business of hail insurance is transacted in Austria only by national and Hungarian institutes, 17 in all. Taking account of their form of organization, they may be divided into four national societies limited by shares: 10 mutual institutes (7 large mutual institutes and 3 local societies) and 3 Hungarian Societies limited by shares. The societies limited by shares seem to be extending their business most widely. From the statistical tables, we see that hail insurance tends to spread more and more among the farmers of the Empire, although, when we consider a long series of years, we see that the increases in the number of policies and in the amount insured are somewhat inconstant and irregular. This depends on the irregularity of the risk of hail itself, sometimes long periods pass, without any devastating hailstorm to be reported, and farmers, trusting in the continuance of this, are indisposed to insure.

These premiums tend to increase, probably in consequence of the heavy hailstorms that have lately been more frequent and more violent.



O.K. Canadian Potato Digger

Don't try to plow up the potatoes, or dig them out with a fork or hoe. It's back-breaking, disagreeable work and you always lose a percentage of the potatoes, which are missed. Let the horses and the **O.K. Canadian** dig your potatoes, and save you a long, tiresome job.

O.K. Canadian does all the work—digs all the potatoes. Soon pays for itself in the bushels of potatoes it saves that the old method would lose.

Write for our catalogue **L** fully describing this great machine.

Canadian Potato Machinery Co. Limited. Galt, Ont.

12

A Good Investment

Get rid of roofs that are a constant expense!

Lay the roofing that is a real investment—

Genasco Ready Roofing

It gives lasting protection to all your buildings, and increases their value. The Good Roof Guide Book tells you why.

Write for the Book and samples—free. Genasco comes in rolls ready to lay. Mineral or smooth surface. Ask your dealer for it.

The Kant-leak Kleet for smooth-surface roofings makes application easy, and prevents nail-leaks.

The Barber Asphalt Paving Company

Largest producers of asphalt, and largest manufacturers of ready roofing in the world.

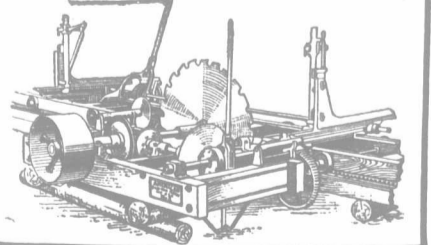
Philadelphia
New York San Francisco Chicago

Canadian Distributors:
Caverhill Learmont & Company
Montreal, Quebec and
Winnipeg, Man.
D. H. Howden & Co., Ltd.
200 York St., London, Ont.

\$\$\$ \$ DOLLARS in your TREES

Right in your own grove—waiting for you to take them out. All you need is an "American" Saw Mill to cut that timber into lumber, which you can use yourself or sell at a good price. You can belt the "American" Mill to your farm engine and run it yourself, turning out first-class lumber faster and cheaper than any other mill. We've written a book—"Making Money Off the Wood Lot"—which tells a number of ways in which you will find an "American" Mill profitable. We want to send you a copy. Write to nearest office.

American Saw Mill Machinery Co.
113 Hope Street, Hackettstown, N. J.
1564 Terminal Building, New York
Chicago—Savannah—New Orleans



ADVOCATE ADVERTISEMENTS PAY.

GOSSIP.

ANOTHER SUCCESSFUL YEAR FOR THE GRAND VALLEY SHORT-HORN HERD.

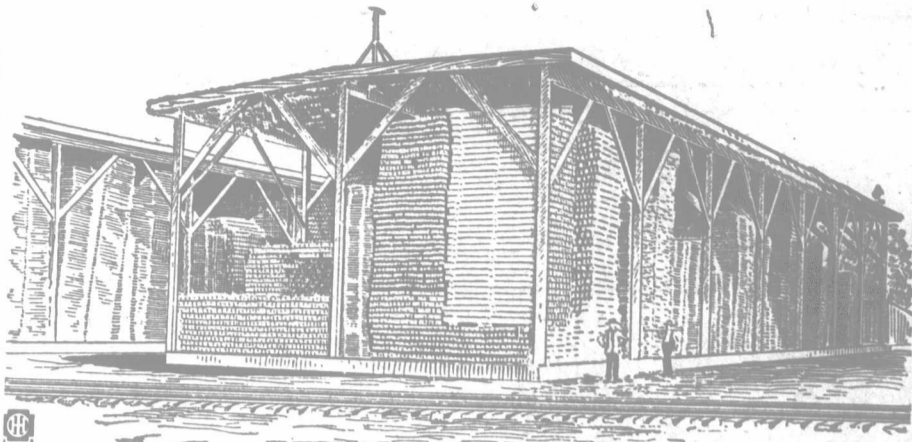
George Gier & Son, of Grand Valley, Ont., report the past year as one of the best for many years for inquiries and sales of breeding stock from their noted herd of Scotch Shorthorns, and particularly for herd-headers sired by their renowned stock bull, Mildred's Royal, whose fame, not only as a show bull himself, but as a sire of show things that win, is not confined to this side of the line, nor to this side of the Atlantic. Our annual visit to this great herd is as often a pleasure and a profit in a careful inspection of the annual crop of high-class calves and yearlings that year after year fill the many well-arranged box stalls, and this year is certainly no exception, and at the world's greatest show at Toronto, in common with this record for many years past, added honors are sure to come to the herd on the youngsters that will be out for comparison. Amongst the lot will be a roan ten-months-old bull, sired by Mildred's Royal, and out of Imp. Emmeline 9th, that will take some beating. He is an exceptionally well-grown bull for his age, very thick and mellow, and looks like a coming herd-header of quality. Another grand young bull is a roan eight-months-old Stamford, by the same sire, and with dam by Scottish Beau (imp.). He is above the average in nice even flesh and quality. Among the string of show heifers that will make things interesting in her line-up, is a roan, ten months old, by Mildred's Royal, and out of Emmeline 13th, by Bennie Knight, a son of the great Prince Gloster. This heifer is immensely thick, and very even, with a beautiful head. Another right good one with a big lot of quality is a red Matchless, by Mildred's Royal, and on her dam's side carrying the blood of such great bulls as Imp. Scottish Beau, Imp. Royal Sailor, Barmpton Hero, etc. There is no more royally-bred heifer than this one, and she shows it, too. She is a full blood sister to the great show bull, Dreamer. Another show heifer is a red Scotch-topped daughter of Mildred's Royal, seven months old, with faultless lines, and quality all over. A coming show heifer is a roan three-months-old daughter of that big-milking cow, Gem of Ballechin, and got by Mildred's Royal. She is thus a full sister to that grand stock and show bull, Waverly, that did such good service in the herd of Geo. Amos & Son. This is a most desirable heifer for breeding purposes. She is not only a right good one, but at three months of age cannot take all her dam's milk. Those mentioned will only show the high-class quality and breeding of the stock for sale from the herd, as there are several other heifers from under the year up to over a year. Look up Mr. Gier's exhibit at Toronto.

QUESTIONS AND ANSWERS. Miscellaneous.

PARTNERSHIP LAMBS.

A rents B's farm for one year. Having lambs (12) to sell, A wishes to sell, while B prefers to keep his to replace some old that have died, and for his own use, to eat. A is kicking now, thinking he has sold too cheaply. It was understood before the buyer that A could sell, but B would keep his share. Now A claims he can sell B's share with his own. Have plenty of feed. A is only selling six lambs. Has A any right to sell B's, when it was understood before a third party that B would keep his? Can A claim any pay for pasture? A SUBSCRIBER.

Quebec.
Ans.—In so far as we can judge of the case from the foregoing statement of facts, it seems to us that the answer to each question should be, no.



A Plain Statement of I H C Wagon Value

THERE is money saved for one farmer every time an I H C wagon is sold. Not because it costs less money to begin with, but because of the length of service it gives, an I H C wagon is the cheapest wagon you can buy. A new wagon costs you the price of so many bushels of wheat or oats, or so many bales of hay. The longer the wagon lasts the more you get for the original purchase price, and the cheaper your wagon becomes. That is why it is economy to buy the best wagon—one that will outlast any ordinary wagon. When you buy an I H C wagon

Petrolia

Chatham

you invest in a wagon built of the highest grade material which experience and care can select or money can buy; built in the most thorough, painstaking manner, by skilled workmen, in factories which have modern appliances for doing work of the highest standard at the lowest possible cost. The conditions under which I H C wagons are built are nearly ideal.

All lumber used is air-dried in sheds with concrete floors. This insures toughness and resiliency. All metal parts are made of especially prepared steel, guaranteeing the longest service. Each wagon undergoes four inspections before being shipped so that it reaches the purchaser in first class condition, ready to be put to work at once and able to carry any reasonable load over any road where a wagon should go.

The I H C local agent knows which wagon is best suited to your work, will tell you why, and will sell you that one. When you see him have him show you all the good points of I H C wagons, and hear what he can tell you about the experiences of I H C wagon owners. You can get literature from him, or write the nearest branch house.

EASTERN CANADIAN BRANCHES INTERNATIONAL HARVESTER COMPANY OF AMERICA

(Incorporated)
Hamilton, Ont. London, Ont. Montreal, P. Q.
Ottawa, Ont. Quebec, P. Q. St. John, N. B.

I H C Service Bureau

The purpose of this Bureau is to furnish, free of charge to all, the best information obtainable on better farming. If you have any worthy questions concerning soils, crops, land drainage, irrigation, fertilizer, etc., make your inquiries specific and send them to I H C Service Bureau, Harvester Bldg., Chicago, U.S.A.

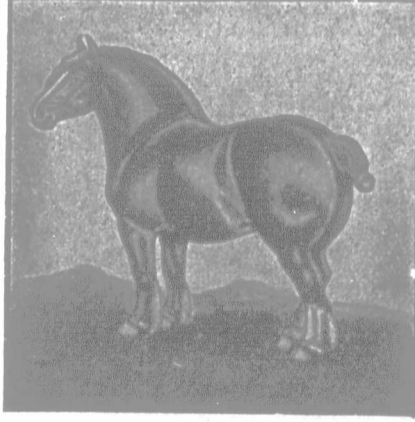


Ormsby Grange Stock Farm, Ormstown, P. Que.

D. McEACHRAN, LL.D., F.R.C.V.S., D.V.S., Proprietor

IMPORTER AND BREEDER OF HIGH-CLASS

CLYDESDALES



With special attention to breeding, size, bone, feet, soundness and colour (no white faces or mixed colours imported by me), being bought direct from the breeders, and imported at minimum expense. Buyers are assured of getting the best, and in all cases full value for their money.

For sale cheap—The grand 4-year-old Jersey bull, Lady Lamberts Fox (922), sired by Golden Fox of Dentonia (72108), a dark coloured typical animal of the Jersey breed; also one 2-year-old and two yearling heifers sired by Fox, and two large-sized aged cows. Will be sold cheap.

POLES OF STERLING QUALITY

Michigan White Cedar Telephone Poles

W. C. STERLING & SON COMPANY

Oldest Cedar Pole Firm in Business

Producers for 32 Years

1880

MONROE, MICHIGAN

1912

PERCHERON STALLIONS—Our 1912 importation of Percheron stallions are now in our stables at Simcoe, Ont. We can supply the trade for ideal draft character flashy quality of underpinning, stylish tops and faultless moving. Let us know your wants. Any terms arranged.

EAID & PORTER, Simcoe, Ontario



Just Arrived—Clydesdale Stallions and Fillies

Bigger and better than ever before is our 1912 importation just arrived. Stallions with size, character, quality and breeding. Fillies of high-class breeding and quality for show or breeding purposes. Come and see them. Terms and prices right. JOHN A. BOAG & SON, Queensville P.O. and Station, on Toronto to Sutton Electric Line L.-D. Phone.



**The First Big Ben
Cost \$12.85**

Big Ben is the result of 26 years of fine clock making. The first Big Ben cost \$12.85 to make. The first hundred cost \$6.50 each. But the great demand has brought the price down to everyone's pocketbook.

**Buy Him Now
for \$3.00**

Big Ben the national sleep-meter, is arousing thousands of farmers on time. Everywhere, everyday, the gentle, insistent voice of Big Ben taps the "sleepy heads" to joyous action. This "minute-man" starts the day with a smile. Big Ben never fails—he's on the job always. He rings 5 minutes straight, or at intervals of 30 seconds for 10 minutes. He tells the truth and gets you and the farm hands up "on the dot."

Big Ben is hand-built, like a fine, thin-model watch, and "time checked" for 140 hours for accuracy. 1,055 skilled watch-makers build Big Ben—the clock that's the pride of the famous Westclox Community of La Salle, Illinois.

2,500 Big Bens now leave the factory every 10 hours and the demand gets bigger daily. Big Ben has ticked himself into popular favor because he is built right, runs right and is priced right.

Big Ben is sold by 5,000 Canadian dealers. If you cannot find him at yours send us \$3.00 today and we will send him by return express, duty charges prepaid.

Big Ben

WESTCLOX, La Salle, Illinois

TELEPHONES

For information and estimates for local telephone systems,—

For guaranteed construction material and telephone equipment,—

Write :

Canadian Independent Telephone Co., Limited

20 Duncan Street, Toronto, Ontario

Ask for No. 3 Bulletin.

MERCHANTS PRODUCE CO.
Butter Eggs Poultry Honey
Beans Apples Potatoes, etc.
Our constantly growing trade demands large supplies of choice farm produce. We need yours. Write for weekly market letter.
57 Front St. E., Toronto
Established 1899

When Writing Mention Advocate

**QUESTIONS AND ANSWERS.
Veterinary.**

WEAK ANKLES.

Three-year-old mare that stands in the stable and does very little driving, is weak on one hind ankle, and goes slightly lame after being driven a few miles.

W. L. C.

Ans.—This weakness is due to congenital predisposition, and standing too much without exercise. Get a blister made of 2 drams each of cantharides and biniodide of mercury, mixed with 2 ounces vaseline. Clip the hair off all around the joint. Tie so that she cannot bite the part. Rub the blister well in once daily for two days. On the third day apply sweet oil and turn loose in a box stall or paddock and oil every day until the hair has grown again. Repeat the blister every month as long as necessary. Do not keep her tied in a stall. Give a large box stall when in the stable, or daily light exercise. V.

EXCESSIVE THIRST.

When filly was a few months old she would drink a pail of water at a time, and has always wanted excessive quantities. She is now two years old, and if allowed would drink twelve pails of water in a day. She has grown fairly well, but is quite thin.

J. W. B.

Ans.—Excessive thirst is usually accompanied by excessive secretion of urine of light, specific gravity. This is a disease known as palyuria, or diabetes insipidus, but as you do not mention anything abnormal in regard to the urine, we presume it is not present. In this case the thirst appears to be congenital. The administration of 40 grains iodine three times daily will probably check the thirst. The administration of the iodine must be ceased as soon as it affects the appetite or thirst. As the desire for large quantities of water appears to be congenital, it is doubtful if its recurrence can be checked. V.

SUPPURATIVE ARTHRITIS.

1. In April, mare went very lame. Her knee swelled and abscesses formed. I lanced on each side, and pus and blood escaped. The abscesses healed, but after a time broke again. I poulticed, and after a time the wounds healed, but the joint remains large and hard. It has been blistered repeatedly, and the enlargement reduced some. There is a hard growth on the inside of the joint, and a swelling all around.

2. In 1909 I saw that ankylosis was recommended by a writer for spavin. What is ankylosis? J. A. R.

Ans.—1. This was arthritis (inflammation of the joint), and has resulted in ankylosis (union of two or more bones) of some of the bones of the joint. The inflammatory action and acute lameness may be removed by repeated blistering, or firing and blistering by a veterinarian. The latter would be better. It is not probable that the enlargement will be entirely removed, or that she will ever again be able to flex the knee normally.

2. Ankylosis is not a medicine. It is the bony union of two or more bones of a joint. It has never been "recommended" in this paper. V.

Miscellaneous.

BOOKS ON POULTRY AND FRUIT.

What is the title of your best book on keeping fowls for profit? As I am going into that business, I would like a reliable book, one that also explains the arrangement of their houses. Also, could you recommend me a good book on fruit farming and prices? S. P.

Ans.—Principles and Practice of Poultry Culture, by Robinson, is a comprehensive and complete poultry treatise, which may be had through this office at \$2.50, postpaid, and Popular Fruit Growing, by Samuel B. Green, is a good fruit book, which may also be had through this office at \$1, postpaid. The Agricultural Departments at Ottawa and Toronto issue many good bulletins which may be had free on application, and which are a great help.

**Gombault's
Caustic Balsam**

The Worlds Greatest and Surest

Veterinary Remedy

HAS IMITATORS BUT NO COMPETITORS!

SAFE, SPEEDY AND POSITIVE.

Supersedes All Cautery or Firing. Invaluable as a CURE for

FOUNDER,
WIND PUFFS,
THRUSH,
DIPHTHERIA,
SKIN DISEASES,
RINGBONE,
PINK EYE,
SWEENEY,
BONY TUMORS,
LAMENESS FROM
SPAVIN,
QUARTER CRACKS,
SCRATCHES,
POLL EVIL,
PARASITES.

REMOVES

BUNCHES or
BLEMISHES,
SPLINTS,
CAPPED HOCK,
STRAINED TENDONS.

SAFE FOR ANYONE TO USE.

We guarantee that one tablespoonful of Caustic Balsam will produce more actual results than a whole bottle of any liniment or spavin mixture ever made. Every bottle sold is warranted to give satisfaction. Write for testimonials showing what the most prominent horsemen say of it. Price, \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use.

**The Accepted Standard
VETERINARY REMEDY**
Always Reliable.
Sure In Results.



None genuine without the signature of
The Lawrence-Williams Co.
Sole Importers & Proprietors for the
U.S. & CANADA. CLEVELAND, O.

THE BEST FOR BLISTERING.

I have used GOMBAULT'S CAUSTIC BALSAM quite a good deal, and for a blister it's the best I ever used. I wish your remedy every success.
CHAR. MOTT, Manager,
Hayfield Stud Farm, Leesburg, Va.

CURED CURB WITH TWO APPLICATIONS.

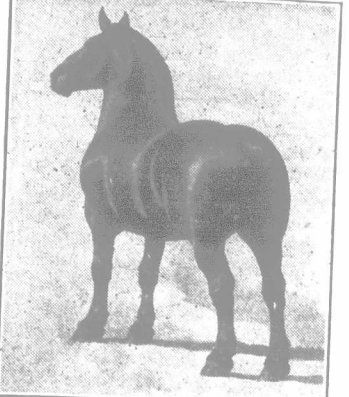
Have used your GOMBAULT'S CAUSTIC BALSAM to cure curb. I blistered it twice, and there is no sign of it any more. The horse is as good as ever.—DAN SCHWEB, Evanson, Ill.

Sole Agents for the United States and Canada.
The Lawrence-Williams Co.
TORONTO, ONT. CLEVELAND, OHIO.

Peerless Poultry Protects
We build Peerless Poultry Fence strong enough to keep marauding animals out and sufficiently close to keep small fowl in.
A Real Fence That Gives Real Service
Built same as farm fence of good galvanized wire, protecting it against rust. Top and bottom No. 9 heavy, hard, steel wire—intermediate horizontal wires No. 12—suitable for turning all classes of stock.
Agencies nearly everywhere. Live agents wanted in unassigned territory.
The Banwell Hoxie Wire Fence Co., Ltd., Winnipeg, Manitoba, Hamilton, Ont.

PERCHERONS

Stallions and Fillies Winners in France



WE have just landed our 1912 importation of Percheron Stallions and Fillies, selected from the leading studs in France. Many of them were winners at the great shows of Alencon and Paris. We think we have more size, more style of tops, more quality of underpinning and more genuine draft character than was ever before landed in Canada from France. We will not be undersold, and our terms are as liberal as any. Let us hear from you.

Our horses will be at Toronto Exhibition
R. HAMILTON & SON
Simcoe, Ontario



HORSE INSURANCE

Against Death by Accident or Disease

Stallions for either twelve months or season of three months. In-foal mares, with or without foal, for thirty days or twelve months.

EVERYTHING IN LIVE-STOCK INSURANCE.

We Issue a Broader and More Liberal Policy than Any Other Company.

THE GENERAL ANIMALS INSURANCE CO. OF CANADA

J. A. CAESAR, Toronto Representative,
Room 2, Janes Building, 75 Yonge St. 'Phone Main 2944.

Head Office: 71-a St. James St.,
MONTREAL.

GOSSIP.

THE NOTED PETIT SHORTHORN HERD.

On visiting the great Scotch-bred herd of Shorthorn cattle belonging to W. G. Pettit & Sons, of Freeman, Ont., we found them in the prime of condition, and although, owing to the big demand the past year has made on the herd, the Messrs. Pettit are not intending to exhibit at Toronto, many of the herd are in a fit that would do them credit in any company, and many high-class show animals are among the lot. It is well known that for many years during the palmy days of Shorthorn importations, W. G. Pettit was one of the most extensive importers in Canada, and being thoroughly familiar with the breed's history and of those particular tribes that made Shorthorn history what it is today, made his selections for importation from the best obtainable, both in high-class individuality and fashionable line-breeding. This is the key-note of the phenomenal success of the herd and the continent-wide popularity they have acquired. The same system of "nothing but the best" has always been particularly manifest in the selection of herd-headers. This system of selection and breeding, coupled with a liberal supply in feeding, and proper care and housing, is responsible for the strictly high-class character of the herd as it is at present. Of late years at the head of the herd was the Toronto grand champion, Princess Royal - bred bull, Imp. Prime Favourite. To his daughters, out of massive, thick-fleshed, imported cows and their daughters, was bred the grandly-fleshed, mellow Cruickshank Butterfly bull, Imp. Bullrush. Again to his daughters is being bred the equally

Union Stock Yards of Toronto, Ltd.

HORSE DEPARTMENT

Auction Sale Every Wednesday Private Sales Every Day

Railroad Loading Facilities at Barn Doors

W. W. SUTHERLAND, In Office. J. H. ASHCRAFT, JR., Manager.

**GRAHAM & RENFREW COMPANY
CLYDESDALES AND HACKNEYS**

Our winnings at all shows are your guarantee that whatever you buy from us will be the best in the land. You cannot afford to buy without first seeing our importations.

Address all correspondence to Bedford Park P.O., Ont. Telegrams to Toronto. Telephone North 4483, Toronto.

ONTARIO VETERINARY COLLEGE Temperance St., TORONTO, ONT.

Affiliated with the University of Toronto, and under the control of the Department of Agriculture of Ontario.

College re-opens Oct. 1st, 1912. N.B.—Calendar on application.

E. A. A. GRANGE, V. S., M.Sc., Principal.

IMPORTED CLYDESDALES

A few choice young stallions always on hand and for sale. Frequent importations maintain a high standard. Prices and terms to suit.

BARBER BROS., Gatineau Pt., Que., near Ottawa.

A Few Choice Glyde Fillies—I am offering several choice and particularly well-bred Clydesdale fillies from foals of 1911 up to 3 years of age, imp. sires and dams. Also one stallion colt of 1911, imp. sire and dam. These are the kind that make the money.

HARRY SMITH; Hay P.O., Ont. Exeter Sta. L.-D. 'Phone.

Shire Stallions and Mares, Shorthorn Cattle (both sexes); also Hampshire Swine. Prices reasonable.

Porter Bros., Appleby, Ont., Burlington Sta. 'Phone

MT. VICTORIA STOCK FARM, Hudson Heights, P. Q.

We have some very choice young stock for sale, both sexes. Clydesdales and Hackneys from champion sires and well bred dams, at reasonable prices.

T. B. MACAULAY, Prop. E. WATSON, Mgr

BLAIRGOWRIE IS OFFERING AT PRESENT:

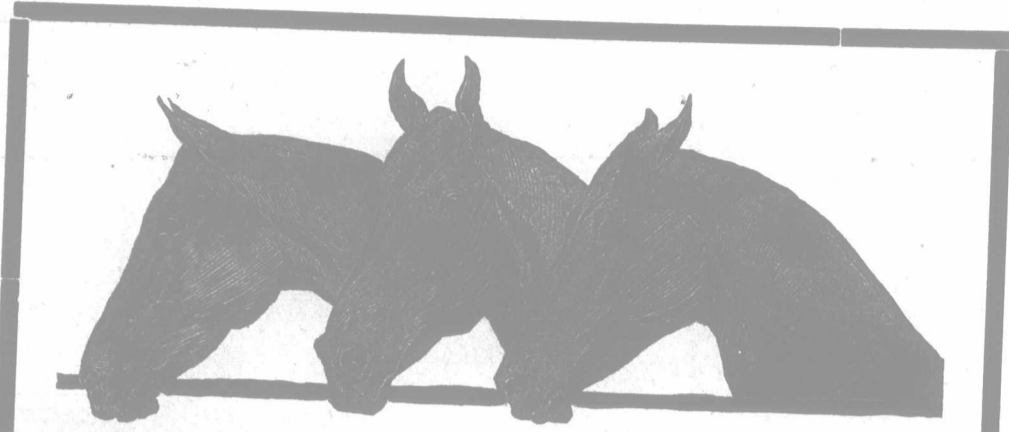
Cotswold and Shropshire Sheep, from Imp. stock. Show sheep all ages, and of both sexes. See my exhibit of Cotswolds at Toronto. Also 50 Shropshire Field Ewes, 25 Shropshire Field Rams, 75 Cotswold Field Rams, 25 Cotswold Field Ewes. Childrens' Ponies nicely broken and quiet. Myrtle, C.P.R. Sta., L.-D. Phone. John Miller, Jr., Ashburn, P.O.

thick, good-doing Marr Bessie-bred bull, Imp. Royal Winner. This is a line of breeding unsurpassed in the Shorthorn world, and the kind of breeding the Messrs. Pettit are now offering in young bulls and heifers, very many of them of strictly high-class show form and condition. In young bulls, there is a roan, eleven months old, out of an imported Jilt-bred cow, and got by Imp. Bullrush. Another, same age, is by Royal Winner (imp.), and out of a Marr Clara-bred daughter of Imp. Scottish Pride. He is a solid red. Another is a red, five months old, by Bullrush, out of a Lady Dorothy dam. These, with several others equally as well bred and of herd-heading quality, are the kind on hand for the coming season's trade. In Clydesdales, the Messrs. Pettit have in breeding such good mares as Imp. Jess Macgregor, by the H. & A. S. second-prize horse, British Chief. At foot she has a splendid horse colt, by Imp. Searchlight. Baron's Blossom (imp.) is a bay, by the great Baron's Pride. She, too, has a horse colt by Imp. Searchlight. Jennie Lee (imp.) is another daughter of Baron's Pride. Another is a bay three-year-old Canadian-bred, by Imp. King's Seal, and dam by Imp. Lord Charming. With such a foundation, the Messrs. Pettit must soon be in Clydesdales what they are in Shorthorns—at the top.

A Hampshire Down ram lamb was let by auction for the season at a sale from the flock of Mr. Blackwell, at Chipperfield, Langley, England, on August 5th, for \$1,000, the top price of the season.

TRADE TOPIC.

Groves & Lindley, of Huddersfield, England, with a branch in Montreal, advertise in this number reliable suits for fall wear, solid worsteds, at very moderate prices, duty and carriage paid, or will supply suit lengths which your own tailor may make up, suitable for cold weather. See the advertisement and send for patterns, post free.



SAVE the HORSE

SPAVIN REMEDY

Our Advice Helps. Sells Horse for \$800.
Ogden, Ia., April 18, 1912.

Troy Chemical Co., Binghamton, N. Y.
Gentlemen—I have used Save-the-Horse for years and I never found any case but it would do just what you claim for it. At present I have a horse I want to race and want your advice and another book. I lost or mislaid mine. The last time I bothered you your advice and treatment did the work. I sold the horse for \$800. Yours truly,
H. S. HELPHRY.

It's the Best Insurance He Knows Of.

Brazil, Ind., April 23, 1912.
Troy Chemical Co., Binghamton, N. Y.:—
Dear Sirs—Enclosed P. O. \$5. Please send me one bottle of Save-the-Horse at once. I have cured two spavins, one curb and one very bad case of shoulder lameness. To have a bottle of Save-the-Horse in the stable is the best insurance against loss I know of. I cannot praise it enough for what it has done for my horses. J. L. CUTSHALL.

Here are two expressions constantly received from our customers:—

"I thank you for your advice."

"I have followed your directions and my horse is cured."

The point we wish to emphasize is simply this—no matter how serious or perplexing the case has proven, there is a way to reach it—and this way is made plain and goes to each and every purchaser with his order. Ask the dealer or write us.

WHETHER ON SPAVIN, PUFF OR TENDON, results are the same, and every bottle sold with an iron-clad contract to cure or refund money. This contract has \$60,000 paid-up capital back of it guaranteeing to cure or refund money. Send for copy.

Write describing your case, and we will send our BOOK, Sample Contract and Advice—ALL FREE to Horse Owners and Managers only.

SAVE-THE-HORSE is sold by Druggists and Dealers everywhere with a binding contract to refund money or cure any case of BONE AND BONE SPAVIN, THOROUGH PIN, RING-BONE (except low), CURB, SPLINT, CAPPED HOCK, WIND PUFF, SHOE BOIL, INJURED TENDONS AND ALL LAMENESS. No scar or loss of hair. Horse works as usual.

TROY CHEMICAL CO., 148 VAN HORN ST., TORONTO, ONT.
and BINGHAMTON, N. Y.

HEAVE REMEDY

Another Success—Another Stride for the Troy Chemical Company. When the claims were made about Save-the-Horse Spavin Remedy the skeptics all said "fool talk" but this remedy for lameness and enlargements is known and respected in every country where horses are raised. It will prove the same with Save-the-Horse Heave Remedy. We know it is as great a boon to Horse men and will equal the success now enjoyed by the Spavin Remedy.

IT IS GUARANTEED.

Hallybury, Ont., Sept., 20th, 1911
Troy Chemical Co., Binghamton, N. Y.:—
Gentlemen—So far as this horse that I treated for the heaves, I will say she does not heave a particle now.

Now I have spent a lot of money on this mare, but never got any relief before; everything seemed to make her worse.

My house is about fifteen rods from the barn, and she has kept me awake many a night coughing. I have got up out of my bed lots of times and went to find her dead after she had been coughing, and my brother begged of me to shoot her and put her out of misery, but I thought so much of her I could not do that.

Now there are lots of people asking me what I am using on this mare. They want to get your address, but there is one more horse I want to get and then I will advertise your medicine.
Very truly yours,
MELVIN UBERDOVE.

Enclosed find check for \$4. Please send me two more packages to Towson, Baltimore County, Md. I want to give one package away and the other to keep on hand.
Yours very truly,
WILTON GREENWAY.

Cicera, Ind., May 8, 1912.
Troy Chemical Co., Binghamton, N. Y.:—
Sir—After using your Save-the-Horse Heave Remedy my mare has quit her coughing. Before I used it you could hear her cough a square away, and it seemed as if she would choke.
Respectfully yours, GEORGE W. BUCHANAN

PRICE \$2. Sold Everywhere or Sent by Prepaid Express.
This HEAVE REMEDY does not temporarily relieve; it will cure permanently ANY CASE of Genuine Heaves.
If you have a horse with heaves you cannot afford to ignore this. Send at once for this treatment or write us.

GOSSIP.

JOHN A. BOAG & SON'S CLYDESDALE IMPORTATION.

John A. Boag & Son, of Queensville, York County, Ont., near Newmarket, are home from the land of the "heather" with a big shipment of Clydesdale stallions and fillies. No man in the Clydesdale business in Canada is better known than John A. Boag, whose reputation as one of the best Clydesdale judges in America is not confined to this side of the line, nor to this side of the Atlantic. People expect that when John A. Boag makes a selection of Clydesdales to offer to the breeders of Canada, a high standard of excellence will be the predominating feature. Such has proved to be the case in all former importations, and certainly he never brought over a better lot than his 1912 importation. Prominent among the stallions of the shipment is the noted prizewinner, Royal Rover, a bay four-year-old son of the noted prizewinner and sire of champions, Marmion. His dam, who has ten first prizes, was sired by the great Baron's Pride, his grandam was by the famous Royal winner, McCash, and his great-grandam was the celebrated prize mare, Lizzie of Inchparks, who was twice first at the Royal, and won many other prizes, she by the big prizewinner, Belted Knight. No Clydesdale is more royally bred, and he does credit to his breeding, having won many prizes, including championship at the big Penrith Show. He is big in size, over the ton, in condition, on a faultless bottom of quality, and is character all over. He is a great horse. A remarkable two-year-old is the bay-roan, Hindward Crest, a son of the H. & A. S. champion, Scottish Crest, dam by the good breeding horse, Prince Peter. This colt, up to a very big size, and standing on a faultless set of underpinning, was first at the famous Clyde Show at Cummock. He is one of the best two-year-olds of the year, and will make over a ton horse that will be full of character and quality. Other two-year-olds of the shipment are Bailie Boy, a brown, by Royal Bailie, and carries in his breeding such noted sires as the C. C. champion, Prince of Carruchan; the Glasgow first prize, Top Knot; the Glasgow and H. & A. S. first prize, Flashwood, etc. There is no better breeding than this colt carries, and he has the character, quality, and underpinning that is found in the toppers at the big shows. The other two-year-old is Jewel Keeper, a bay, by the popular premium and breeding horse, Majestic Baron, dam by the equally popular Balfern. This is another toppy colt, with lots of character and quality of bottom. Laird o' Ken is a bay yearling, by Cawdor Laird, dam by Rathillet. This is one of the great yearlings of Scotland for 1912. He was shown many times, and was only once placed second, but at other shows afterwards he twice defeated the colt that lowered his colors. For the first time, after many tempting offers, Mr. Boag has decided to sell that immensely flashy bay-roan six-year-old, Homestake. He is one of the great horses that has been a credit to Canada and an honor to Scotland. He has won many prizes in this country. He has been in this country three years, and is one of the most successful stock horses ever imported. Sired by the renowned Silver Cup, dam by the world-renowned Prince Sturdy, his breeding is as high as his individuality. Another great horse that Mr. Boag kept for service is the bay four-year-old, Angelo, a son of the H. & A. S. champion, Benedict, dam by the great Knight of Drumlanrig. He is a horse of ideal character, and has proven a sire of show youngsters. In the filly end of this year's importation the Messrs. Boag have excelled. There are ten all told, one, two, and three years of age, of a type and quality seldom equalled by any previous importation of any firm. Six of them are two-year-olds, three are yearlings, and the other a three-year-old. She is Lady Crusoe, a bay, by the H. & A. S. prize horse Crusoe, and dam by Scotch Earl. She is a big, show filly. Of the two-year-olds, two are by Rycroft, and dams by the great Prince Robert and Prince Garthland. These are a splendidly-matched pair of quality fillies, and should go together. Another is by the great horse, Crossrigg, and

NOTICE TO HORSE IMPORTERS

GERALD POWELL

Commission Agent and Interpreter
Nogent Le Roi France

will meet importers at any port in France or Belgium, and assist them to buy Percherons, Belgians, French Coach horses. All information about shipping, banking, and pedigrees. Many years experience; best references. Correspondence solicited.

20 Imported Percherons 20

WILL LAND ON AUGUST 25TH

In time for Toronto Exhibition, so don't fail to see them. Mares from 1 to 4 years. Some in foal. Winners at the Paris Exhibition. Stallions from 1 to 5, greys and blacks, with plenty of size and best quality. My shipment of Clydes will land about the middle of September. These horses have all been personally selected by Mr. Elliott, and that is a guarantee of the best. Terms to suit.

T. D. ELLIOTT, BOLTON, ONT.

GAVE UP ALL HOPES OF EVER GETTING WELL

Mr. Jacob E. Herr, 111 Grange St., Stratford, Ont., writes:—"Ten years ago I suffered with a very peculiar disease. I would go to bed feeling as well as could be, and after sleeping for five hours I would wake with a severe pain in my back, then moving into my side and breast. The pain was so terrible I could not lie in my bed, and usually had to sit until morning with a pillow propped up behind my back. With all my pain I would go to work, and after working up to about 10 o'clock the pain would leave me entirely. The same thing would happen the next night, and every night for two years. I tried four different doctors, but none of them did me any good. I tried a great many patent medicines, but all of no avail. I gave up all hopes of ever getting well. A friend persuaded me to try Milburn's Heart and Nerve Pills. I bought four boxes, and after using the first one I felt a change for the better, and after using three boxes I could sleep all night. The pains were gone, and I was completely cured. Milburn's Heart and Nerve Pills are 50 cents per box, or 3 boxes for \$1.25, at all dealers, or mailed direct on receipt of price by The T. Milburn Co., Limited, Toronto, Ont.



Canadian Airmotors
Provide Power FREE for Pumping Water
"The wheel that runs when all others stand still" Strongest, easiest-running windmill made. Self-regulating. Gives steady power and greatest service.
Write for FREE book full of important facts about windmills. Address nearest office,
ONTARIO WIND ENGINE & PUMP CO., Ltd.
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COURT LODGE, EGERTON, KENT, ENG.
EXPORTERS OF

Live Stock of all Descriptions
Draft horses of all breeds a specialty. Intending buyers should write us for particulars, as we can place before them the most attractive proposition they have yet experienced. We can send highest references from satisfied buyers of nearly all breeds.

Shires and Shorthorns
In Shire stallions and fillies, from the best studs in England, we are offering some rare animals at rare prices. Scotch Shorthorns of either sex or age of highest breeding and quality. **John Gardhouse & Son, Highfield Ont. L-D.** phone.

Aberdeen-Angus—A few bulls to sell yet; also females. Come and see them before buying. **Drumbo Station.**

Walter Hall, Washington, Ont.
Aberdeen-Angus of Show Form and Quality. For this season my offering in young bulls and heifers are toppers eye yone. Showing form and quality, and bred from show winners. **T. B. BROADFOOT, Fergus, Ont. G. I. R. and C. P. R.**

Rosedale Stock Farm—Shorthorns and Dorset Sheep for Sale. Either sex and all ages. Prices right. For prices write to **E. A. ROSEVEAR, Roseneath, Ont.**

Aberdeen-Angus Cattle Mature early. Best of beef. Several young bulls for sale. Appl. **MANAGER "GRAPE GRANGE" FARM, Clarksburg, Ont.**

Aberdeen-Angus—We have on hand, a beautiful bull calf nine months old. Also some fine young heifers. **J. W. BURT & SONS, Conningsby, Ont. Erin Station, C. P. R.**

Jas. W. Glendinning, Veterinary Surgeon, Beaverton, Ont. Office and residence, Main St. Operation on Riding horses a specialty. Insurance arranged for if desired. Bell phone, 61

dam by Sir Evelyn. Another is by the big, noted sire, Menelaus, and dam by the C. C. champion, Marcellus. Still another is by the renowned prize and breeding horse, Baron Mitchell, and dam by Full of Pride. The yearlings are by such great horses as Sir Hugo, Baron Ruby, and Dignity. Parties interested should see this lot of fillies if in want of a big, well-bred, breeding filly, or a high-class show filly.

QUESTIONS AND ANSWERS. Miscellaneous.

COW KILLED—UNSATISFACTORY HELP.

Cows were coming from pasture for milking unattended, and were met by auto, which struck one and broke its leg, causing death.

1. Is driver liable for damage? He says he slowed up to pass cattle, and thinking he had passed all of them, let on speed again. This cow had remained behind the others and suddenly emerged from bushes close to road, and, running in front of auto, was struck.

2. Would fact of their not being attended make any difference?

3. Farm hand hired by month for eight months, at \$25, free home and garden. Providing he is not giving satisfactory service, how much notice is required for dismissal? No written agreement.

A SUBSCRIBER.

Ontario.
Ans.—1. We think not.

2. Yes; it is a circumstance that would materially assist the defence.

3. If his services are so unsatisfactory as to warrant his dismissal, no notice is requisite.

COST OF SPRAYING MUSTARD.

In your issue of July 4th, you say mustard can be controlled with such cheap and effective treatment as bluestone. How much bluestone will it take to the acre, and does one have to have special machine to apply it, and what is the cost of machine? There is not much use the bluestone being cheap if the sprayer cost too much. Please give full particulars, and when to spray. Would it do good on fall wheat? T. F.

Ans.—For spraying mustard, ten or eleven pounds of bluestone are dissolved in a 40-gallon barrel of water, and one barrel of the solution will usually cover an acre, though as much as two barrels is sometimes applied. If the mustard is caught at just the right stage, and rain does not follow within 24 hours, a single application may suffice. In some cases a second is necessary to do a thorough job. An ordinary spray pump may be used, though for rapid work a specially designed mustard-spraying attachment, with eight nozzles, covering about twelve feet each time across the field, may be purchased for about \$20 extra, over and above the cost of the usual tree-spraying outfit, which runs in the neighborhood of \$30. The mustard-spraying attachment is also adapted for spraying potatoes if planted in rows 36 inches apart. Of course, power sprayers which run automatically, may be had, but these cost in the neighborhood of \$130. They cover more ground than the others, and are to be recommended where large areas must be sprayed. To cope with mustard, one must spray his grain crop every year until all the mustard seeds in the soil have finally been germinated and destroyed. Hoe crop may easily be kept clean by cultivation, and the mustard will not give trouble in meadows. Odd plants appearing here and there, might be pulled. The best time to spray is when the mustard plants are just coming into bloom. Choose a bright day. We do not think the spray would hurt wheat, but as a rule the mustard grows more prolifically in spring grain. The spray, if applied in proper strength as suggested above, will not hurt the grain, which has smooth, linear leaves. It adheres to the mustard and destroys it because mustard leaves are rough and hairy. Full directions for mustard spraying appear annually in "The Farmer's Advocate" about May.

The Cross Fertilizer Co., Ltd.

THE CROSS FERTILIZER CO., LTD., OF SYDNEY, N. S.,

Will be pleased to meet farmers and others interested in

BASIC SLAG

As a Fertilizer

While at the

CANADIAN NATIONAL EXHIBITION TORONTO

Call and see us at our tent, situated near the Poultry Building, where the Company will be represented by

C. R. WALKER,
Managing Director.

ALEX. E. WARK,
Salesman.



FAIR WINNERS
have often been produced by the help of **ABSORBINE**

as it strengthens the muscles and ligaments, keeps out soreness, prevents fatigue, stops pain, reduces swelling and inflammation. It is a positive ANTISEPTIC AND GERMICIDE and therefore especially effective in healing cuts, sores, galls, bruises, etc. Used by successful exhibitors and trainers because ABSORBINE does not blister, stain or remove the hair, and horse can be worked.

KILLS PAIN AND STOPS LAMENESS QUICKLY

It is economical, as only a few drops full strength are required at an application. A bottle of ABSORBINE, diluted as per formula on label, makes three gallons of efficient liniment at a cost of 80 cents a gallon. You will find it a money maker for you in getting all your horses in better shape for regular work or sale and you might also make a prize winner by removing some blemish from them with ABSORBINE. Frank Briscoe, Osceola, Ont., writes May 1st, 1912. "Absorbine has cured a big mare that was completely used up with contraction of the muscles. I bought her for \$30.00 and wouldn't take less than \$400.00 now. I owe many thanks to ABSORBINE."


USE ABSORBINE to remove Bursal Enlargements, Bog Spavins, Thoroughpins, Puffs, Shoe Boils, Capped Hocks, Swollen Glands, Infiltrated Parts, Thickened Tissues, Rheumatic Deposits, Enlarged Veins, Painful Swellings and Affections; to cure any strain or lameness; to repair strained, ruptured tendons, ligaments or muscles; to strengthen any part that needs it. You can buy Absorbine at regular dealers, price \$2.00 per bottle or sent to you, express prepaid with full instructions. Write me about any special case on which you would like advice. Horse book free. Manufactured only by **W. F. YOUNG, P. D. F., 258 LYMAN'S BLDG., MONTREAL, Can.** Also furnished by Martin Bole & Wynne Co., Winnipeg, The National Drug and Chemical Co., Winnipeg and Calgary, and Henderson Bros. Co. Ltd., Vancouver.

ORCHARD GROVE HEREFORDS
Champions of 1911 shows, winning both senior and junior herds at Winnipeg, Brandon, Regina, Edmonton, Toronto and London; also fifteen championships. Young stock, both sexes, for sale at reasonable prices. **L. O. CLIFFORD, Oshawa, Ont.**

Fletcher's Shorthorns
Our herd of Pure Scotch Shorthorns (Imp.), or direct from imported stock, is headed by the grandly bred Bruce Mayflower bull, Royal Bruce (Imp.) = 55038 = (89909) 273853. Choice young stock for sale. **GEO. D. FLETCHER, R. R. No. 1, Erin, Ont.**

THIS IS A GOOD TIME, AND I HAVE A GOOD PLACE TO GET A HIGH-CLASS SCOTCH SHORTHORN BULL CALF

by my great Whitehall Sultan sire, or a young cow in calf to him, to start a herd that will be gilt-edged. SHROPSHIRE RAMS AND EWES, too, at low prices. CHILDREN'S PONIES A CLYDESDALE FILLY, such as I can send you, is one of the best things any man can buy. Just write me and say as nearly as possible what you want, and I will surprise you with prices on goods that are genuine **ROBERT MILLER, STOUFFVILLE, ONTARIO.**

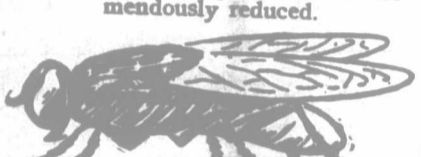


The destruction of the house fly is a public duty. Almost every American State Board of Health is carrying on a crusade against him. His filthy origin and habits, and the fact that his body is generally laden with disease-producing germs, makes him one of the greatest enemies of the human race.

If the housekeepers of Canada will use

WILSON'S FLY PADS

persistently, this peril will be tremendously reduced.



OAKLAND Shorthorns

Our herd of about fifty, and mostly of the dual purpose strain, are doing fine. We are offering a few cows and heifers and five young bulls fit for service, all sired by our champion Scotch Grey bull 72692, which has headed our herd for three years. People find things as represented: good cattle and no big prices.

JNO. ELDER & SON, HENSALL, ONT.

WILLOW BANK STOCK FARM Shorthorns and Leicesters

Herd established 1855, stock 1848, have a special good lot of Shorthorns of either sex of various ages; also a grand lot of Leicester sheep of either sex—a few imported ones to offer.

JAMES DOUGLAS Caledonia, Ontario

1854 Maple Lodge Stock Farm 1912

Have some SHORTHORN HEIFERS two years old from cows giving 50 pounds milk per day, and in calf to my stock bull, Senator Lavender. Grand young LEICESTERS from imp. Wooler of Sandy Knowe, champion at Toronto, and imp. Royal Connaught.

A. W. SMITH, MAPLE LODGE, ONTARIO
Lucan Crossing, G. T. Ry., one mile.

Shorthorns, Berkshires, Cotswolds

Nine bulls from 9 to 11 months, cows, heifers and neifer calves; over 50 head on hand. No Berkshires to offer at present. A few shearing ewes for sale.

Chas. E. Bonnycastle,
P. O. AND STA., CAMPBELLFORD, ONT

SPRING VALLEY SHORTHORNS

Herd headed by the two imported bulls, Newton Ringleader, =73783=, and Scottish Pride, =36106=. The females are of the best Scottish families. Young stock of both sexes for sale at reasonable prices. Telephone connection.

KYLE BROS. - - Ayr, Ontario

CEDARDALE SHORTHORNS

Shorthorns of all ages, pure Scotch and Scotch topped, imp. and Canadian-bred, choice heifers, choice young bulls, also the stock bull Lord Fyvie (Imp.); anything for sale.

Dr. T. S. Sproule, M. P. Markdale, Ontario.

Spruce Lodge Shorthorns and Leicesters

Will price cheap young bull from 6 to 14 months; also 1 and 2-year-old heifers, some from imp. sires and dams. Leicesters at all times of both sexes for sale. Phone. **W. A. Douglas, Tusearera, Ont.**

Clover Dell Shorthorns

Real bargains in females. Dual-purpose a specialty. **L. A. Wakely,** Bolton, Ont. Bolton Sta., C. P. R.; Caledonia East, G. T. R. 'Phone.

Shorthorns—Nine bulls and a number of heifers for sale at very reasonable prices.

Robert Nichol & Sons, Hagersville Ont.

When writing mention Advocate

GOSSIP.

E. A. Rosevear, Rosedale Stock Farm, Roseneath, Ont., near Cobourg, writes: In Shorthorns I have Jilts, Roan Beautys, and the good old English strain, Lady Eden. All are very deep milkers. Also some good bull calves for sale, bred right. In Dorset sheep I have about twenty-five for sale, as good as can be got in Canada.

The Dominion Well Supply Company, Cargill, Ont., in their advertisement in this issue, call attention to their wind engine, claimed to be the best in Canada, and that they are the only firm that have the sole and exclusive right to manufacture these gears in Canada. Look up their exhibit at the Toronto Exhibition and have it explained, or write them for particulars.

WHERE QUALITY COUNTS IN ABERDEEN-ANGUS CATTLE.

A striking example of what a judicious selection of breeding females, and a more careful selection of herd-headers, followed by a generous allowance of good care and good feed, can be accomplished in bringing a herd up to the highest possible standard of excellence, is seen in the Balmedie herd of Aberdeen-Angus cattle belonging to T. B. Broadfoot, of Fergus, Ont. It was an exercise of rare judgment by Mr. Broadfoot when he purchased that grand bull now at the head of the herd, Proud Elmer 2nd, a glance over whose show-ring record is the best description of his superior individuality. Before coming to this country he won first at Denver, Col., first at Nebraska State Fair, second at Springfield, Mass., third at Iowa State Fair, and third at Chicago International. Last year, in this country, he was second at Toronto, and first at London, but best of all, for the Balmedie herd, he is proving a sire of remarkable worth, practically all of his get being possessed of show-ring form and quality. His predecessor in service was the well-known prizewinner and sire of prizewinners, Elm Park Ringleader 6th., whose get now in the herd are certainly a credit to the breed and to their great sire, having many honors to their credit won in the strongest kind of company. Many of the females of the herd are prizewinners, notably Balmedie Pride 2nd, who was second at Toronto, first at London, and first at the Winter Show at Guelph. Out of her is a beautiful show heifer, ten months old, got by the present stock bull. Another heifer that will take a lot of beating is a ten-month-old daughter of the big, thick cow, Balmedie Twin, and got by the stock bull. Balmedie Favorite 2nd is a yearling of high-class show-ring form, got by Elm Park Ringleader 6th., and out of a daughter of the famous show cow, Elm Park Favorite. Last year, as a calf, this heifer was third at Toronto and London. What we think is one of the best three-year-olds in the country is Balmedie Violet, by Elm Park Ringleader 6th., and out of the great breeding cow, Violet of Lakeside. Last year she was fourth at Toronto and second at London, and will surely come to the top this year. These are representative of the female end of the herd. In young bulls, for sale, are five, every one of them good ones, some of them particularly choice. Balmedie Proud Boy is a yearling that last fall was second at Toronto, sired by Elm Park Ringleader, and out of Elm Park Pride. He is bred from prizewinners on both sides, and is a show bull all over. The others are all got by the present stock bull, son of a Mayflower dam that was junior champion at Toronto. One is out of a Keepsake-bred cow that was second at Toronto and London. Another is a Mayflower; the other a Pride. Parties wanting a choice herd-header or herd foundation, would be consulting their own interests to get in touch with Mr. Broadfoot. On the farm, for sale, are also a limited number of Oxford Down sheep, one and two shears, and this year's lambs. These will be sold cheap to clear, as Mr. Broadfoot is going out of sheep-raising.

Ideal Green Feed Silos

Make Money for their Owners

The most prosperous and experienced dairymen all over the Dominion agree that a good silo is a necessary part of the Dairy equipment of any cow owner who wants to realize a reasonable profit from his herd.

A little investigation must convince you that it will pay you to erect a silo.

The next question is "What silo?"

You cannot afford to experiment.

You want a silo that by many years of use has proved its worth.

The IDEAL GREEN FEED SILO has been longest on the market. Thousands of prominent and successful owners are thankful for the day they erected an IDEAL GREEN FEED SILO on their farms.

Be sure and get our new Silo Book.

De Laval Dairy Supply Co., LIMITED

OLDEST AND LARGEST SILO MFRS. IN CANADA
173 William St., Montreal

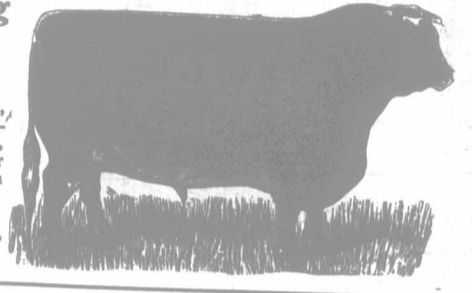


Present Special Offering

20 High-Class Scotch Shorthorn Heifers
10 High-Class Young Shorthorn Cows
5 High-Class Scotch Shorthorn Bulls

At moderate prices, including Marr Missies, Emmas, Cruickshank Nonpareils, Duchess of Glosters, Village Girls, Bridesmaids, Butterflies, Kinellar Claretts, Miss Ramsdens, Crimson Flowers; also a number of the grand old milking tribe, which have been famous in the showing.

ARTHUR J. HOWDEN & CO.
Columbus, Ontario



SHORTHORNS

Have now a choice lot of young bulls to offer; also with something nice in heifers. Catalogue of herd and list of young animals on application.

H. CARGILL & SON, Proprietors, Cargill, Ont., Bruce Co.
JOHN CLANCY, Manager



SALEM SHORTHORNS

Headed by Gainford Marquis, undefeated bull of three countries. See our show herd at the leading fairs, starting at Winnipeg. **J. A. WATT, SALEM, ELORA STA., G. T. and C. P. R.**

Scotch Shorthorn Females for Sale

I am offering at very reasonable prices, females of Scotch Shorthorn (imp.) =55042= (90065), and the older ones have calves at foot by him, or amongst them. Their breeding is unexcelled, and there are show animals



Scotch Shorthorns

FOR SALE. One promising 12 months Imported Bull Calf, a Marr, Flora, recently imported; 12 bull calves from 6 to 11 months old, all by Imp. Farm 1/2-mile from Burlington Jct. Station. **MITCHELL BROS., Burlington, Ont.**

Scotch Shorthorns

Present offering: Three young bulls of serviceable age, from imp. sires and dams. A few very good bull calves. Cows and heifers bred or with calves at foot.

Burlington Jct. Sta., G. T. R.

W. G. PETTIT & SONS, Freeman, Ont.

1861 Irvine-Side Shorthorns 1912

Offering for sale young bulls and heifers that are the result of over 50 years successful breeding. Pure Scotch, and carrying the best blood of the breed. Few good Oxford Down rams.

John Watt & Son, Salem P. O., Ont. Elora Station, G. T. and C. P. R.

SHORTHORNS OF BREEDING AND QUALITY

Our offering this year in young bulls and heifers, out of Scotch cow, and sired by our great Mildreds Royal, are put up on show lines, and strictly high class.

Geo. Gier & Son, Grand Valley, Ont., P.O. & Sta.

Brampton Jerseys

Don Jersey Herd

Offers young bulls and heifers for sale; heifers bred to Eminent Royal Fern.

D. Duncan, Don, Ont., Duncan Stn., C.N.R.

'Phone Long-distance Agincourt.

When writing mention Advocate

RIVERSIDE HOLSTEINS

Our chief sire is King Johanna Korndyke. The records of his dam, sire's two nearest dams, and eight of their sisters, average 33-35 pounds, among which are six past and present world's champions. Assisting him is Prince De Kol Posch, whose dam won the dairy test at Guelph two years. For sale: Young bulls by them and out of record dams.

John W. Richardson, Caledonia P.O. and Sta. 'Phone.

BALAPHORENE A. J. C. C. JERSEYS

Present offering: Cows from three to seven years old; calves from two to ten months old; either sex.

JOSEPH SFABROOK, HAVELOCK, ONT.

HOLSTEINS and TAMWORTHS—As I have sold my farm, I am offering anything in my herd for sale, including calves sired by Sir Lyons Hengerveld, Segis; sire King Segis; dam Blance Lyons De Kol, having a record of 33 1/2 lbs. of butter in seven days. Will be at Toronto Exhibition. **J. MCKENZIE, WILLOWDALE, ONT.**



"INTERNATIONAL FLY WAY"
Prevents the Tremendous
Loss from Flies

Flies cost the Farmers of Canada millions of dollars annually by retarding the growth or fattening of animals and by greatly reducing the production of milk by constantly annoying the animals all summer. Every farmer or stock raiser knows this statement to be true from his own experience.

Flies also cause a great loss of life by spreading Diseases from farm to farm. "International Fly Way" will keep flies off your animals and give them perfect rest from these pestiferous insects, which will make you more money in a larger production of milk or much quicker growth of all animals.

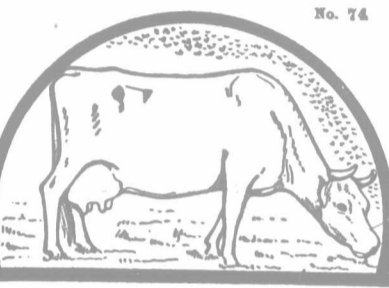
SAVE YOUR STOCK

By Using
"INTERNATIONAL FLY WAY"

It is positively guaranteed to be effective in Driving Away Flies, Mosquitos, and other insects which worry stock and reduce their earning capacity. It is harmless to the hair and skin and will be found perfectly satisfactory when used according to directions.

We place our twenty years of reputation back of "International Fly Way," and ask you to test it on our positive guarantee.

FOR SALE AT ALL DEALERS.
INTERNATIONAL STOCK FOOD CO. Limited, TORONTO
No. 74



**SPECIAL OFFERING OF HIGH-CLASS
HOLSTEINS**

At Maple Grove, A couple of grand young bulls of the rich, butter-fat testing Duchess Ormsby strain, out of rich and deep-milking, officially tested dams; also one sire, d by a son of Beauty Pet r je, butter record 30.51 lbs. in 7 days; also young cows (officially tested) and heifers of the richest breeding, bred to King Lyons Hengerveld, whose 17 carest female ancestors have butter records from 30.50 to 34.75 lbs. butter in 7 days. Visitors to inspect here always welcome. For description and particulars write: H. BOLLEKT, Tavistock, Ont. (R.R. No. 5)



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 ASSO.
F. L. Houghton, Sec'y, Box 127, Brattleboro, Vt.

Holsteins of Quality

Write us to-day for our proposition, telling you how any good dairyman may own a registered Holstein bull from a Record-of-Performance cow without investing a cent for him.

MONRO & LAWLESS, "Elmdale Farm"
Thorold, Ontario

The Maples Holstein Herd

offers a splendid lot of bull calves, all sired by Prince Aaggie Mechthilde and all from record of merit dams. For pedigrees and prices write

WALBURN RIVERS,
Folden, Ontario

Maple Line Holsteins and Yorkshires

Herd headed by Homestead Colantha Sir Abbekerk 2nd, whose dam, sire's dam, g. dam, average 29.61 lbs. butter 7 days. For sale at bargain prices, choice bull calves from R.O.P. cows. W. A. BRYANT, Middlesex Co., Cairngorm, Ont.

Kidgedale Farm Holsteins

We have four bull calves left for sale, from high testing dams; sired by Imperial Pauline De Kol, whose 15 nearest dams average 26.20 lbs. butter in 7 days. Shipping stations: Port Perry, G. T. R., and Myrtle, C. P. R., Ontario County.
R. W. WALKER Utica, Ont.

Genwood Stock Farm 5 BULL CALVES,
HOLSTEINS fit for service, out of big milking strains, at low figure for quick sale. THOS. B. CARLAW & SON, WARKWORTH, ONT. Campbellford Sta.

"In your sermon this morning you spoke of a baby as 'a new wave on the ocean of life.'" "Quite so—a poetical figure." "Don't you think 'a fresh squall' would have hit the mark better?"

STRUGGLING AUTHOR.

"This world will not recognize all I have done until after my death." Friend (consolingly)—"Well, I wouldn't worry. You'll be beyond injury then."

GOSSIP.

A. A. Colwill, Newcastle, Ont., on account of the scarcity of help and a late harvest, is not exhibiting his herd of Tamworths at the leading fairs this fall, as has been his custom in former years, hence will have quite a number of show things to offer for sale, amongst which is his present stock boar, a worthy son of Halman's imported hog, one of the best stock boars he ever owned. He has also a few choice boars nearly ten months old, several young sows due to farrow in September and October, and several choice boars and sows four months old, all of which will be sold well worth the money. The Shorthorn heifers and Cotswold sheep he is offering are of the best blood, and are also nice quality. His Shorthorn heifers, he states, are of a particularly good milking strain, and are showing every indication of making excellent milkers.

ELMGROVE HAMPSHIRE SWINE.

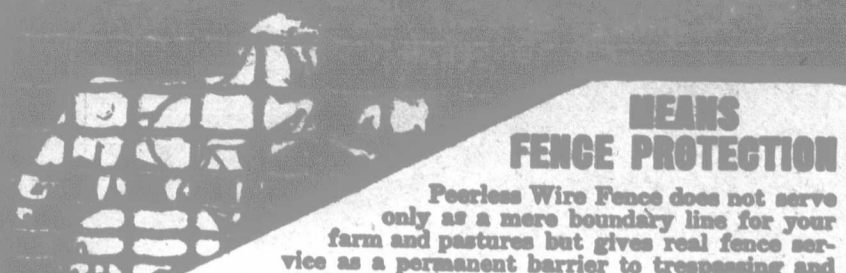
The rapidity with which the Elmgrove herd of Hampshire, or White-belted swine, the property of J. H. Rutherford, of Caledon East, Ont., have come to the front in popularity, and the extensive and rapidly-spreading volume of trade, in the matter of sales, that has come to Mr. Rutherford for breeding stock, and the almost universal satisfaction expressed by purchasers on receipt of the shipments, all the way from the Maritime Provinces on the East to Alberta on the West, is pretty conclusive evidence that Mr. Rutherford's Hampshires are as good as the breed produces, and that he ships true to his former representation. On the day of the writer's visit to his splendid farm, he was shipping a trio, two young sows and one young boar, to an order in Alberta, and a right nice level lot they were, but they certainly could not be expected to look as well at the end of their long journey, and very often swine-breeders are subjected to a lot of grumbling by purchasers who imagine that young pigs should look their best on landing from a long and tiresome journey, where they have not been half fed or watered. On the farm we were shown a number of splendid brood sows, big, smooth, and well rounded, some that would take some beating at the big shows. From these grand sows, for sale, are both sexes of various ages. Write Mr. Rutherford your wants to Caledon East P. O., or call him up by long-distance 'phone.

TRADE TOPICS.

For a riding plow, guaranteed satisfactory, see the advertisement of Wm. Dick, Bolton, Ont., and write for his illustrated catalogue, giving description and price.

LADY PRINCIPAL FOR THE ONTARIO LADIES' COLLEGE.—Dr. Hare has just returned from England, where he succeeded in engaging, with the help of Mr. Jas. L. Hughes, of Toronto, Ont., a Lady Principal for the Ontario Ladies' College, Whitby, viz.: Miss Alice Taylor, B.A., a teacher of ability and experience, and a lady of more than ordinary culture. Her early education was received in the Sheffield High School for girls, under the direction of Mrs. Woodhouse, who is acknowledged to be one of the most cultured lady educators in England. Her university course was taken in the University College, Cardiff, an institution widely known for its attention to the social life of the students. Her first experience in teaching was in the Bede Collegiate School for Girls, from which she rose to the position of Senior Mistress of the Pupil-teachers' Department, and became responsible for all that pertained to the social life of the lady teachers. Five years ago she was appointed one of the lecturers in the Training College for Teachers in Sunderland, which position she leaves to become Lady Principal of the Ontario Ladies' College. She has been very highly recommended for her beautiful Christian character and decided influence for good over young people. The College is to be congratulated on having secured one so well fitted by education, social training, and high Christian ideals to fill satisfactorily the important position to which she has been appointed.

PEERLESS - PERFECTION



**MEANS
FENCE PROTECTION**

Peerless Wire Fence does not serve only as a mere boundary line for your farm and pastures but gives real fence service as a permanent barrier to trespassing and wandering of stock.

You Should Fence Your Land With PEERLESS

We use high grade fence wire well galvanized. The joints are united by the non-slippable Peerless Lock, making a fence that will stand up against the most severe and sudden shocks without damage. The horizontal wires are all crimped, making ample protection for contraction and expansion, keeping the fence always tight even under extreme variations of temperature.

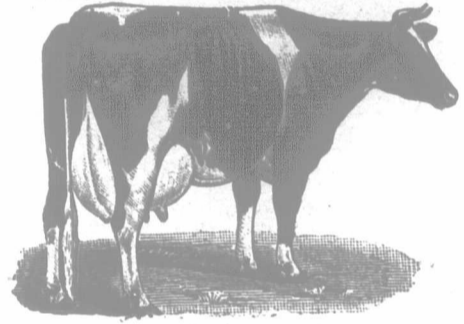
Write for our Illustrated Booklet at Once

We also manufacture a wonderful line of poultry fencing and farm gates. Agencies almost everywhere. Agents wanted in all unassigned territory.

The Banwell Hoxle Wire Fence Co., Ltd.
Winnipeg, Man., Hamilton, Ont.

SPRUCEDALE STOCK FARM

Breeders of Holsteins, Hackneys, Yorkshires & Leicesters



Stockmen and others in search of animals of the highest type are invited to come to Sprucedale and look through our stables. All our stock is for sale. Come and make your selection.

HOLSTEINS.—Our high-producing herd of over 30 females, from calves up, is for sale. This includes daughters of the famous bull, Cornelius Poeh; also of the imported cow, Genevieve Lucia Pieterje (71370), (7433). Some of the cows are bred to Peter Teak, the O.A.C. bull. Several young heifers may be secured at reasonable prices. To avoid inbreeding, we are also offering for sale our 3-year-old stock bull, King Peter Teak, sire Peter Teak (12436), (4900), dam Queen Mabel (1346).

HACKNEYS.—Several prizewinners for sale, including Gu lph Performer, and whose pedigree is a long list of noted animals. Also quite a number of other light horses.

YORKSHIRES.—Sows of the popular Minnie and Bloom strains, bred and ready to breed. Also young pigs just weaned.

LEICESTERS.—Lambs for sale, sired by Marr's Tom 13409; bred by John F. Marr. Farm situated five miles west of St. Thomas on the Talbot road.

A. WATSON & SONS, R. R. No. 1, St. Thomas, Ont.
PROPRIETORS
Long distance 'phone, Fingal via St. Thomas.

Fairview Farms Herd

is where you can secure a son of Pontiac Korndyke, admitted by all breeders to be the greatest Holstein sire that ever lived. Look what his daughters are doing. Two of them with records over 37 lbs. each. Then look at the work his sons are doing. HE IS THE GREATEST PRODUCING SIRE OF THE BREED, THROUGH HIS SONS. Every son of Pontiac Korndyke that has daughters old enough to milk is a sire of good ones. We can offer you several young ones that will give you good daughters.

E. H. DOLLAR,
Near Prescott
HURVELTON, N. Y.

LAKEVIEW HOLSTEINS!

We are offering several young bulls of the choicest breeding and individuality. They are sired by our son of Colantha Johanna Lad, and their dams are sired by our son of Pieterje Hengerveld Count De Kol. The farm is only one hour from Toronto. Come and see us. Herd bulls: Count Hengerveld Payne De Kol and Dutchland Colantha Sir Mona.

F. E. OSLER,
Bronte, Ontario

SUMMER HILL HOLSTEIN CATTLE and YORKSHIRE HOGS

Our senior herd bull, Sir Admiral Ormsby, is the sire of the world's record 2-year-old for yearly butter production. Also sire of the highest record four-year-olds in Canada. The dam of our junior herd bull made 34.61 lbs. butter in 7 days, and gave 111 lbs. milk per day. Come and make your selection from Exhibition for ten years. We are still breeding them bigger and better than ever. Buy Summer Hill Yorkshires, the quick-maturing kind, and double your profits.

D. C. FLATT & SON, R. F. D. No. 2
Hamilton, Ontario Bell 'phone: 2471, Hamilton.

VERGREEN STOCK FARM
HIGH - CLASS HOLSTEINS

Present offering: Two young bull calves; good individuals; nicely marked and well bred; the dam of one of them being Unidley Abbekerk, the cow that topped the consignment sale of the Oxford District Holstein Breeders' Club. Priced right for immediate sale.

A. E. Hulet, Norwich, Ont.

Maple Hill Holstein-Friesians

—Special offering: Bulls from one to fifteen 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.

Bell Telephone. G. W. CLEMONS, St. George, Ont.

IMPERIAL HOLSTEINS

I can supply bulls ready for service and younger ones, also heifers out of R. O. M. cows, averaging 27.19 pounds. W. H. Simmons, New Durham P.O., Oxford Co.

Woodbine Holsteins

—Herd headed by King Segis Pontiac Lad, whose sire's dam is the champion cow of the world. Sire's sire is the only bull that has sired five four-year-olds that average 30 lbs. each. Dam's sire is the bull that has sired two 30-lb. three-year-olds. His two great grand sires are the only bulls in the world that have sired two 37-lb. cows. Bulls and bull calves for sale.

A. KENNEDY, Ayr, Ontario.

A Beautiful Range--- Yet Easily Kept Clean

Glance at the "PANDORA" as it stands complete—a handsome range surely, yet easily kept clean. McClary's famed "Duplex" nickelling cannot burn off—it never becomes tarnished. About it there is no superfine "impossible-to-keep-clean" tracery—the nickel adornment is rich—the carving bold.



"PANDORA" surfaces are "burnished." The McClary system of burnishing is a special process that produces surfaces as smooth as plate glass. "PANDORA" surfaces keep their color indefinitely—they retain our special water-proof dressing. So, you can keep the "PANDORA" bright and clean by simply rubbing a dry cloth over it.

The "PANDORA" is more than a handsome range. It is also a permanent investment because it is built to endure—it is the one range that is as strong and compact as it looks.

The "PANDORA" cooking surface is made in sections with expansion top—the covers and cross-bars fit into them—this allows for expansion and contraction without any possibility of cracking or warping.

"PANDORA" Range

Top sections are reversible—you can place a boiler cross-wise on the "PANDORA" if you wish to use front pot-hole over fire. "PANDORA" lids and entire top are extra heavy and guaranteed not to crack or break under ordinary usage.

N. B.—You can have the story of "PANDORA" Efficiency in detail by simply asking for our free book, "REASONS FOR 'PANDORA' POPULARITY."

LONDON
TORONTO
WINNIPEG
ST. JOHN, N. B.

McClary's

MONTREAL
VANCOUVER
HAMILTON
CALGARY

102

GOSSIP.

The picture on another page in this issue of D. C. Flatt & Son's richly-bred and typical Holstein bull calf, King of the Ormsbys, represents an exceedingly valuable proposition when the splendid official records of his family are considered. This grand young bull, we are informed, is for sale. Breeders may do well to think it over.

IRVINESIDE SHORTHORNS.

For over fifty years the above-named herd of Scotch-bred Shorthorn cattle have been in continual existence without a break, one of the famous Watt herds of Salem, Ont., this one the property of John Watt & Son, whose success as breeders and exhibitors, as well as importers, for over half a century is too well known to need repeating. Representing to-day, as they have done through all these years, the best and most popular blood lines of the breed on the female side of the herd, and on the sires' side the blood of the most successful and renowned breeding and show bulls this country has ever known, the herd has ever been one of the most desirable from which to select breeding females or herd-headers. At the present time in service as the successor of the great Pride of Scotland (imp.), is the grandly-fleshed bull, Royal Hope, of the great Cruickshank Brawith Bud strain, and sired by the big, thick, and good-breeding bull, Blood Royal (imp.), Royal Hope is one of the bulls that goes on improving with age, and if another year shows as much improvement in his general form as the last, he will be one of the best show bulls in the country for the aged class next year, and it surely does not require a very great stretch of the imagination to picture the splendid results that should follow his use on the Marr Roan Lady, Mildred, Matchless, Mina, Emmeline, Rosemary, and Lancaster-bred daughters and granddaughters of the immortal sires, Royal Sailor (imp.), Brampton Hero, Challenge, Marquis of Zenda (imp.), Good Morning (imp.), Jilt Victor (imp.), and Pride of Scotland (imp.). From just such breeding as that, for sale, are a few heifers and two young bulls that will be old enough for service by spring.

A HIGH-CLASS FLOCK OF OXFORD DOWN SHEEP.

The old-established flock of Oxford Down sheep from which many of the leading Canadian flocks trace their foundation, is that belonging to Wm. Barnett & Sons, of Living Springs, Ont., about five miles from Fergus Station on the C. P. R. and G. T. R. It has been the privilege of the writer to visit this splendid flock annually for many years, and although great care has always been exercised in the selection of the best imported flock-headers procurable, we never remember a time when the quality, size, covering, and breed type of the crop of lambs was of so high a standard, nor of so pronounced a uniformity as this year. The get of the present stock ram, bred by J. T. Hobbs, and one of the first-prize pen at the Royal, he is certainly proving a great sire, and the Messrs. Barnett were never in a better position to fill orders for a high quality of flock-headers than this fall. They are also offering a particularly nice lot of shearing ewes and ewe lambs, the shearings being sired by Cowlie Courtier (imp.), and another imported Harlick-bred ram, thus presenting an opportunity seldom offered in this country for the purchase, at moderate prices, of foundation stock of this great dual-purpose breed, and all indications point to a big revival of the sheep industry in Canada, and a corresponding increase in prices, evidencing that now is the time to buy. The Messrs. Barnett are also offering for sale their Holstein stock bull, Sir Fafarit Posch, four years old, sired by the great Cornelius Posch, and out of Fafarit Butter Girl, whose two-year-old record is 13.14 lbs., and butter-fat test 4.09 per cent., she out of a R. O. P. dam with 17,619 lbs. milk, and 821½ lbs. butter in one year. This bull is for sale at almost beef price, as his heifers are of breeding age. He is guaranteed safe and sure. In poultry, the firm's speciality is S.-C. Brown Leghorns, of which, for sale, are a number of choice cockerels and pullets.

ON FARMING.

"Father," asked Johnny, "what is the difference between farming and agriculture?"

"Well, my son, for farming you need a plow and a harrow and other implements, and for agriculture all you need is a pencil and a piece of paper."

SHUTTING HIM OFF.

"Now, if I were an ostrich," began the mean man at the breakfast table as he picked up one of his wife's biscuits, "then—" "Yes," interrupted the patient better half, "then I might get a few feathers for that old hat I've worn for three winters."

Ayrshires of production, type and quality. can supply Ayrshires that will please the most exacting critic. Young bulls or females of any age, the kind that swell the bank account.

R. M. Howden, St. Louis Sta., Que. L.-D. phone.



Burnside Ayrshires

R. R. NESS, Howick, Quebec.

FIRST CHEQUE FOR \$50 buys a son of Victor Hugo (highest-priced bull of the breed), and from an Uncle Sam dam. How would a bull of this breeding look at the head of your herd?

Herd tuberculin tested. **McMILLAN & LEGGAT, TROUT RIVER, QUE.**

Bell Telephone, Huntingdon 81-21. Carr's Crossing, G. T. R.; Huntingdon, N. Y. C. R.

City View Ayrshires—Bonnie's Messenger both dam and gr. dam R. O. P. cows. One yearling bull and calves of either sex. Will sell a few cows. **JAMES G. G., R. R. No. 1 St. Thomas** One and a half miles from all stations.

Ayrshires and Yorkshires—We now offer at bargain prices bull calves dropped in July, 1911. All bred from (imp.) sire and from either imported or home-bred. Some choice February pigs; also young pigs.

STONERHOUSE AYRSHIRES

Are coming to the front wherever shown. Look out for this at the leading exhibitions. Some choice young bulls for sale, as well as cows and heifers.

RECTOR GORDON, Howick, Quebec.

Champions in the show ring and dairy tests. Animals all ages and both sexes for sale. Long-distance phone in house

Hillcrest Ayrshires—At head of herd is Ivanhoe of Tanglewild, a son of the champion Ayrshire cow, Primrose of Tanglewild, R. O. P. test 16,195 lbs. milk and 625.62 lbs. fat; 60 head to select from. Inspection invited. **F. H. HARRIS, Mt. Elgin, Ont.**

Alex. Hume & Co., Menie, Ont.





STOP THIS WITH COOPER'S FLY KICKER

It pays to keep your stock free of flies—contented cows give 1/2 more milk; horses work harder and on less food. Costs less than 1/2 cent a head per day. Use Cooper's Fly Kicker and save money. Easy to use—economical—efficient—see Quarts (Imperial) 50c; Gallons (Imperial) \$1.25. Special circular free—tells what others say about Cooper's. Any dealer or **WM. COOPER & NEPHEWS - TORONTO**

Cattle and Sheep Labels

Size	Price doz.	Fifty tags
Cattle.....	75c.	\$2.00
Light Cattle..	60c.	1.50
Sheep or Ewg..	40c.	1.00

No postage or duty to pay. Cattle sizes with name and address and numbers; sheep or hog size, name and numbers. Get your neighbors to order with you and get better rate. Circular and sample. Mailed free. **F. G. JAMES, Bowmanville, Ont.**

FARNHAM FARM OXFORDS and HAMPSHIRE

The Oldest-established Flock in America

Our present offering is a grand lot of yearling rams and ram lambs of both breeds. Also a few fitted yearling ewes and ewe lambs by our imported champion rams, and some from imported dams; also 50 fine yearling field ewes. Prices moderate.

HENRY ARKELL & SON, ARKELL, ONTARIO
Phone connection Guelph.

Southdown Sheep

The market-to-day demands quality. It pays to breed what the market wants. Can you do this more cheaply or quickly than by heading your flock with a right good ram of this most perfect of mutton breeds?

Orders taken for a few sturdy young rams for fall delivery.

ROBT. McEWEN, Alloway Lodge Stock Farm
Byron, Ontario

HUNTLYWOOD SOUTHDOWNS

A few choice sheep always on hand.

HUNTLYWOOD FARM, Beaconsfield, P.Q.
DRUMMOND BROS., Owners.
A MUNRO, Manager.

Oxford Down Sheep, Shorthorn Cattle, Yorkshire Hogs—Present offering: Lambs of either sex. For prices, etc., write to **John Cousins & Sons, Harriston, Ont.**

SPRINGBANK OXFORD DOWNS
Present offering: 20 two-shear ewes, 21 ewe lambs and 20 ram lambs from imported sires. **WM. BARNETT & SONS, LIVING SPRINGS, P. O., ONT.** Fergus, C. P. R. and G. T. R.

DORSET SHEEP

Choice stock of either sex. Write me before you buy. **HERBERT T. LEAL, FULTON, ONT.** Grassie's Station, T. H. & B.

ROSE VALLEY OXFORDS

Lambs of both sexes for sale, bred from typical ewes and sired by imp. Hamptonian 126.

J. A. HENDERSON, ROSEVILLE, ONTARIO
Ayr, C. P. R.; Berlin, G. T. R.

The Schoolmaster—"Now, how was it that this great discovery made by Columbus was not fully appreciated until many years after his death?"

The Up-to-date Scholar—"Because he didn't advertise."

Magistrate (to prisoner)—"Did you call this gentleman an old fool last night?"

Prisoner (trying to collect his thoughts)—"The longer I look at him, sir, the more probable it seems to me that I did!"

CLEAN HANDS



15c a Tin.

Don't let them fool you with a cheap imitation. SNAP is the ORIGINAL and BEST HAND CLEANER. Will remove grease and stains of all kinds.

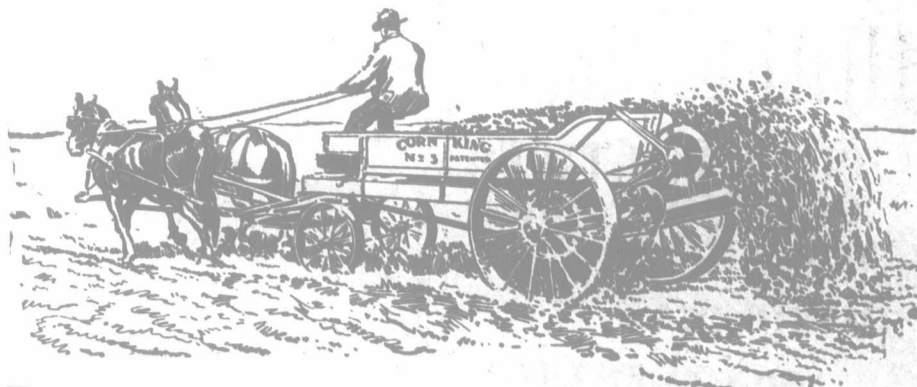
GOSSIP.

SPRING VALLEY SHROPSHIRE.

About four miles from Bradford Station on the east, and a little farther from Beeton Station on the west, lies the well-arranged stock farm, Spring Valley, the property of Thos. Hall, breeder of Shropshire sheep. Few men in this country are capable of sizing up the breed characteristics and fine qualities of sheep with Mr. Hall, whose whole life has been intimately associated with their care and breeding, and in his splendid flock of Shropshires is ample evidence of his expert knowledge in the selection of breeding stock and their care and fitting. Founded on imported sheep of Cooper & Mansell breeding, and others imported in dam of Miller importation, and headed by carefully-selected imported stock rams, the flock has always been kept up to a high standard. Among them just now are the second-prize pen of ewe lambs at Guelph last winter, and from the flock has also been produced a number of Toronto and London prize-winners. Many of those now on hand are the get of that great ram, Ashland's Monarch (imp.), winner of first prize at the Royal. This year's lambs are by a Cooper-bred ram, also a Royal winner. For sale, are shearing rams and ram lambs, shearing ewes and ewe lambs. Selections are made and orders booked as received. Write Mr. Hall to Bradford P. O., Ont.

PERFECTION IN SCOTCH SHORT-HORNS AT SUNNYSLOPE.

Wallowing in pastures such as few farms in Ontario can produce, the high-class herd of Scotch Shorthorns belonging to A. E. Meyer, of Sunnyslope Farm, Guelph, Ont., was found loaded with beef from the heels up, on the occasion of a visit by a representative of this paper a few days ago. Representing as they do the most popular blood of the breed, and receiving the care and generous rations befitting a herd of their standard of excellence, they are always found in the nicest kind of condition, and ready for inspection by the breed's most severe critics. Although Mr. Meyer is not a show man, he generally has a few on hand to pull out as a surprise to the visitor looking for something above the average, and the present time is no exception to the rule, whether the visitor is looking for mature females for a herd foundation, or an extra nice heifer or two, or a coming herd-header. Of the former, an extra good, thick cow, is a roan Marr Missie, carrying a wealth of flesh, evenly distributed. At foot she has a heifer calf, sired by a Missie-bred bull, that looks good for a coming topper. Here are a pair for a herd foundation that are sure money-makers. Another grand cow is a Cruickshank Jealousy, sired by a Strathallan-bred bull. She is one of the big, thick kind, that win in the show-rings. Still another is a roan Broadhooks, sired by the Missie bull, Imp. Merchantman. This is a combination of the most popular blood of the breed, and shows itself in the big, massive, quality cow that carries it. These are a fair representation of the many high-class breeding matrons of the herd. In younger ones, a show proposition is a red yearling Bruce Mayflower, sired by Janitor, a son of the great Uppermill Omega, her dam being by the successful stock bull, Imp. Scottish Hero, a Shethin Rosemary. Another exceptionally choice three-year-old is a red Campbell Bessie, sired by Imp. Scottish Hero, and dam by the Golden Drop bull, Royal Prince. Still another is a roan Cruickshank Village heifer, sired by Gloster King, a son of the champion sire, Prince Gloster. Still another is a Marr Roan Lady, by Scottish Hero. In young bulls the supply is limited, as Mr. Meyer has a big demand for herd-headers sired by his famous bull, Imp. Scottish Hero. The oldest is a red, six months, out of Imp. Lettice, a Lovelace-bred cow. He is sired by Scottish Hero, and is the making of a good one. Another is a three-months B. Mayflower, sired by Janitor. Anything in the herd is for sale. The farm is only about one mile from Guelph Station, and is connected with long-distance phone.



What Is Soil Fertility? How Does It Interest You?

WHAT is soil fertility? Why is its lack considered so serious a matter? Why is it that authorities on better farming agree in considering it one of the most important questions requiring solution by farmers today? The answer is found in the small average yield of farms in this country as compared with those of other countries where correct fertilizing is practiced, and in the rapidly decreasing quantity of available new land. There are two things that every farmer can do, both of which will make his farm more productive. One is to practice a proper rotation of crops; the other to buy and use an

IHC Manure Spreader Corn King or Cloverleaf

Every farm can be benefited by the use of an I H C manure spreader. It will distribute the manure in an even coat, light or heavy, as may be required. Manure spread in this manner does the most good to the soil at about half the expense and much less than half the work of hand spreading. An I H C manure spreader is a scientific machine, built to accomplish a definite purpose in the most economical manner. It is constructed according to a well-thought-out plan, which insures the best work in the field with the least strain on machine or horses. To take one example of the thoroughness in detail, all I H C spreaders are so constructed that a reach is unnecessary. This construction allows the spreader to be managed handily in small feed lots, backed up to barn doors opening into narrow yards, or turned completely in its own length. Yet the absence of a reach in no way interferes with the strength or field efficiency of the machines.

See the I H C local agent or write the nearest branch house for catalogues and information.

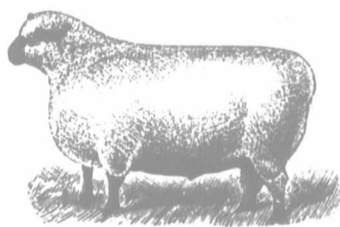
CANADIAN BRANCH HOUSES: INTERNATIONAL HARVESTER COMPANY OF AMERICA

(Incorporated)
At Brandon, Calgary, Edmonton, Hamilton, Lethbridge, London, Montreal, N. Betteford, Ottawa, Quebec, Regina, Saskatoon, St. John, Weyburn, Winnipeg, Yorkton

IHC Service Bureau
The purpose of this Bureau is to furnish, free of charge to all, the best information obtainable on better farming. If you have any worthy questions concerning soils, crops, land drainage, irrigation, fertilizer, etc., make your inquiries specific and send them to I H C Service Bureau, Harvester Building, Chicago, U.S.A.



BELMONT Shropshires and Southdowns



I have a grand lot of rams and ewes for sale, both breeds. Anyone wanting a good ram, or a few good breeding ewes, should write me, or look out for me at the Canadian National Exhibition, Toronto. I shall have a few extra show sheep for sale. Write early and get the first choice.

C. Hodgson, Brantford, Ontario

MAPLE VILLA OXFORD DOWNS AND YORKSHIRES

This fall I have the best lot of lambs I ever bred. I have plenty of show material, bred from the best stock procurable in England. Order early if you want the best. Ram lambs, shearlings and ewe lambs. Yorkshires of all ages.

J. A. Corwell, Bond Head P. O., Ontario
Bradford or Beeton stations. Long-distance phone.

Shropshires and Southdowns

I have for sale a good lot of yearling rams and ewes, also a few good lambs, of both breeds. Have still left a few fitted Southdown ewes—good ones.

LOOK OUT FOR MY EXHIBIT AT THE CANADIAN NATIONAL EXHIBITION THIS YEAR.

C. Hodgson, Brantford, Ont. Shropshires and Cotswolds!

In SHROPSHIRE I have for sale 35 imp. shearing rams and ewes from some of England's best flocks, a lot of fine home-bred rams and ewes bred from Minton and Buttar ewes. In COTSWOLDS a lot of rams and ewes, and an extra good lot of lambs. A few of each breed fitted for showing. Order early and get a good choice. Prices very reasonable.

Claremont Station, C. P. R., three miles. Pickering Station, G. T. R., seven miles. **John Miller, Brougham, Ont.**

SPRING VALLEY SHROPSHIRE
I am offering for sale shearing and ram lambs, shearing and ewe lambs, of highest quality and breed type. Prizewinners among them. Bred from imported stock. Order early.

THOS. HALL, BRADFORD, ONT., P. O. & STA.

LITTLE BOY WAS SUDDENLY TAKEN WITH DIARRHŒA and VOMITING

If you are suddenly taken with Diarrhœa, Dysentery, Colic, Cramps, or Pains in the Stomach, Cholera Morbus, Summer Complaint, or any Looseness of the Bowels, do not waste any time, but immediately procure a bottle of Dr. Fowler's Extract of Wild Strawberry, and it will cure you in no time. Mrs. H. L. Steadman, Pleasant River, N.S., writes: "A year ago this fall, my little boy was suddenly taken ill with diarrhœa and vomiting, and as our doctor is ten miles distant, it seemed as if I could not get help soon enough, but on going to the country store I purchased a bottle of Dr. Fowler's Extract of Wild Strawberry, and after the first dose could notice an improvement, and the next day the child was better and regained health. Since that time I always keep it on hand."

Insist on being given "Dr. Fowler's" when you ask for it. Price 35 cents. Manufactured only by The T. Milburn Co., Limited, Toronto, Ont.

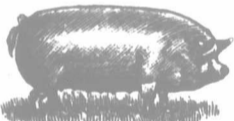
Duroc Jersey Swine AND JERSEY CATTLE



Grand stock, either sex, constantly for sale. Price reasonable.

MAC CAMPBELL & SONS
NORTHWOOD, ONT.

Large White Yorkshires



Have a choice lot of sows in pig. Boars ready for service and young pigs of both sexes supplied not akin, at reasonable prices. All breeding stock imported, or from imported stock, from the best British herds. Write or call on:

H. J. Davis, Woodstock, Ont.
C. P. R. and G. T. R. Long-distance phone

Hilton Stock Farm

Present offering: 6 yearling heifers and several younger ones. All very choice. Of Tamworths, pigs of all ages and both sexes; pairs not akin. **R. O. MORROW & SON, Hilton, Ont.** Brighton Tel. & Stn.

Registered Tamworths

Merton Lodge is offering Tamworths, either sex, from six weeks to four months old. The true bacon type, having great bone and length. We pay express charges and guarantee satisfaction. **W. W. GEORGE, Crampton, Ont.**

Large English Berkshires—Present offering: Sows bred and ready to breed. Two choice year-old boars; also young stock of both sexes. All from imported stock. Prices reasonable. **C. J. LANG, Hampton, Ont.**

SWINE OF ALL BREEDS FOR SALE. Yorkshires, Tamworths, Berkshires, Hampshires, Chester Whites, Poland-Chinas, and Duroc-Jerseys. I have constantly on hand both sexes of all ages. Show stock a specialty. **John Harvey, Freilighsburg, Que.**

Hampshire Hogs—We have the greatest prize-winning herd of Hampshire Swine in Canada, bred from the best strains of the breed; stock of both sexes not related. **Hastings Bros., Crosshill P.O., Ont., Linwood Sta., C.P.R., Newton Sta., G.T.R.** Telephone in residence.

QUESTIONS AND ANSWERS. Miscellaneous.

HEN DIES—BIRDS DESTRUCTIVE.

1. Would you kindly tell me through your paper what is the matter with this hen? The hen was very lame, and when she walked she would drag her leg behind her; she ate well, but did not lay, and was healthy-looking. I killed her, and when I opened her she had a bunch growing on her back which resembled a gizzard, but was mattery on the inside. I immediately destroyed her.

2. Could you also tell me how to keep sparrows and blackbirds from destroying seed oats and seed timothy? We have a piece of timothy of three acres; the birds are simply destroying it all. F. P.

Ans.—1—This may have been a tumor, or it may have been tuberculosis. You were wise to destroy her, and it would be advisable to thoroughly disinfect the poultry house in which she was kept.

2. Considerable trouble of this kind has been reported this year. A liberal use of powder and shot is about the only method we know.

MATERIAL FOR SILO—WHEN TO PLOW TIMOTHY SOD FOR CORN.

1. Please give me bill of material required to build a cement silo 14 x 35, and thickness of wall?

2. Could the part under ground be erected this fall and the rest in the spring, by leaving iron rods sticking up to make good connections?

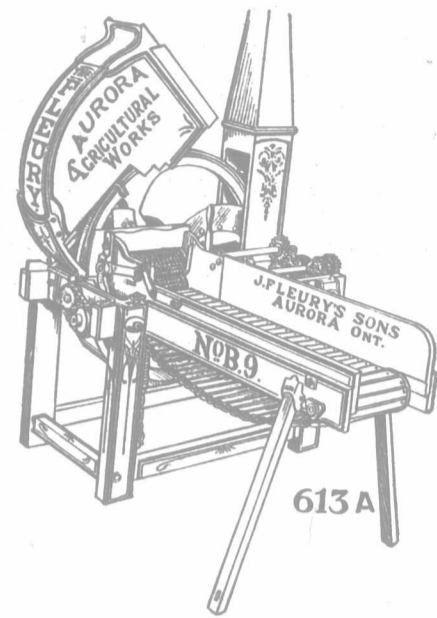
3. I have a piece of timothy sod in good condition for corn next year. It will get no manure. Would it be wise to leave it lie till the first of May before preparing for crop? R. G.

Ans.—1. We shall answer this question by reproducing the bill of material used for the cement-concrete construction of our silo at Weldwood, which is 14 x 40, with walls tapering in thickness from 11 inches at the bottom to 6 at the top. This is exclusive of the underground or foundation course 2½ feet deep, which is 18 inches thick at the bottom, tapered to 15 inches at the ground level. For the portion above ground, 10 inches, tapering to 6, would be plenty strong enough. We would advise you to make your silo not less than forty feet high. Depth is the most desirable feature in a silo, and in a cement silo it may easily be secured. If we were altering the proportions of our silo, it would be to make it still deeper, thus giving more capacity for summer feeding, while keeping surface of silage down to a minimum. However, if you do build only thirty-five feet high, estimate seven-eighths as much gravel and cement as we used. Following is our bill of material. Full particulars regarding construction may be found in our issue of February 1st, 1912.

Cement, 56 barrels.....	\$ 92 40
Gravel, 13 cords.....	9 62
Stone, 3 loads.....	00
½-inch rods for reinforcing, 500 lbs.....	14 25
Old wagon tires for reinforcing door openings and perforated plate for drain.....	1 50
Iron rings with shanks, 3 pairs, costing @.....	90
Bolts bedded at top to attach roof.....	1 00
Tile for drainage, 120 3-inch.....	1 56
Total material for cement work.....	\$121 23

2. The underground part might be built now as you suggest, and the rest in the spring, but we would not advise it. There would be a certain weakness in the wall at the critically important point where the junction would occur, and the underground portion would be too shallow to be of use until construction was completed. If necessary to have such a union of new and old work, we should prefer to have it come higher up the wall.

3. On general principles, we should answer this question for your locality in the negative, unless the field is a hilly one, or subject to excessive surface-washing.



Cut and Deliver YOUR CORN BY OUR B. 9 BLOWER CUTTER

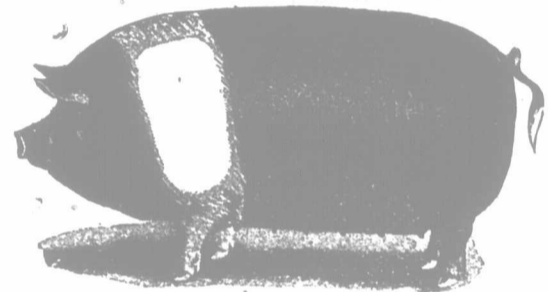
Fourteen-inch Mouth
Three Knives
Carrier Feed Tables

SIMPLE CONSTRUCTION DOES THE WORK
MODERATE IN PRICE

J. Fleury's Sons, Aurora, Ont.
Medals and Diplomas—World's Fair, Chicago and Paris.

Elmgrove Hampshire Swine

FOR SALE

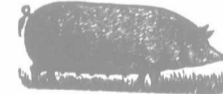


Hampshire pigs from the most prolific and best belted families. Stock has been selected from the best show herds of the breed. Prices right and stock the best. If you want the right kind, write or phone. I guarantee every hog I sell to be a good one. I can supply any number of Hampshires, from one to one hundred.

J. H. RUTHERFORD, Box 62 Caledon East, Ont.

Long-distance 'phone connection at Bolton.

NEWCASTLE TAMWORTHS, SHORTHORNS AND COTSWOLDS



Present offering: Several boars from 7 to 15 months old; boars and sows 6 weeks to 4 months old; several choice sows due to farrow in Sept., others ready to breed, from such noted stock as Colwill's Choice—Canada's champion boar, 1911, '02, '03, '05, and Imp. Cholderton Golden Secret. Also a few choice Shorthorn heifers in calf, beef and milk combined; and a nice lot of Cotswold ram lambs, ewe lambs, and half a dozen ewes from 2 to 5 years old. A lot of this stock is fit for show purposes.

LONG-DISTANCE TELEPHONE.

A. A. COLWILL, NEWCASTLE, ONTARIO

Pine Grove Yorkshires

Bred from prizewinning stock of England and Canada. Have a choice lot of young pigs of both sexes, pairs not akin, to offer at reasonable prices. Guaranteed satisfaction.

Joseph Featherston & Son, Streetsville, Ont.



Woodburn Berkshires—We are offering for sale 100 head of young Berkshires of both sexes and any sizes required. We can supply pairs or trios not akin; our Berkshires are noted for strength of bone, length, depth and quality, conforming to bacon type. Show and breeding stock a specialty.

E. BRIEN & SON, Ridgetown, Ont.

FOR SALE: A NUMBER OF CHOICE YOUNG Large English Berkshire Pigs

Bred from prizewinning stock on both sides. They are of that bacon type you are looking for. Prices cheap for quick sale.

WESLEY HARRIS, EFFINGHAM P. O., ONT., R. R. NO. 1



ELMHURST LARGE ENGLISH BERKSHIRES
Present offering: Select sows. Choice boars ready for service also younger stock, livery guaranteed. H. M. VANDERLIP, Breeder and Importer, CAINSVILLE P. O. Langford station, Brantford and Hamilton Radial.

SUNNYSIDE CHESTER WHITE HOGS—I am now offering some very choice young things of both sexes, of breeding age. A few Shropshire sheep of both sexes. Also Mammoth Bronze turkeys. **W. E. WRIGHT, Ganworth P.O., Ont.**

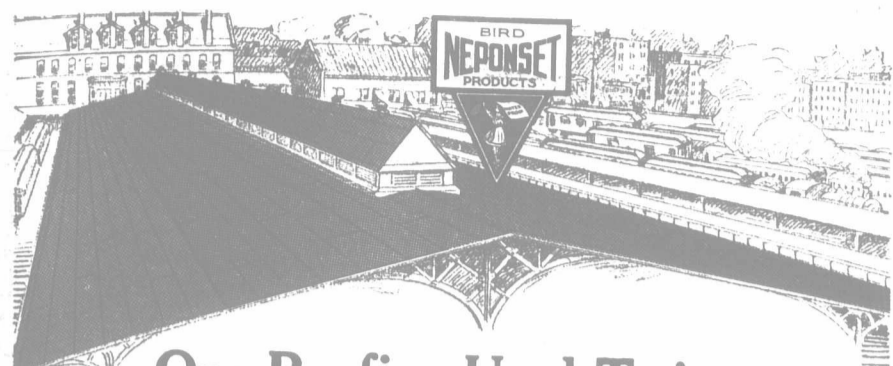
FAIRVIEW BERKSHIRES

Ontario's banner herd. Prizewinners galore. For sale are: Young sows bred and others ready to breed, and younger ones. A number of young boars coming on. **JOHN S. COWAN, Donegal, Ont.**

Morrison Tamworths & Shorthorns

Present offering: Four dandy bull calves that will make show winners, from six to ten months old. Choice Tamworths, both sexes, all ages, from two to ten months old. Young sows in farrow. Satisfaction guaranteed and safe delivery.

CHAS. CURRIE, MORRISTON, ONTARIO



One Roofing Used Twice

After fighting smoke, burning cinders and storm for seven years, the roofing shown above on the old Wells Street Station of the C. & N.W. R. R. in Chicago, was rolled up and used to re-roof several suburban stations.

NEPONSET PAROID ROOFING

This hard wear has not taken a bit of the life out of the roofing, and it is now giving perfect service in its new locations. A good life insurance risk is the man who lives beyond the average time—longer than he is *expected* to live. A good roofing is one that lasts *longer* than is necessary. That's what NEPONSET Paroid does. An ideal roofing for factories, storehouses and farm buildings.

Blue Print Barn Plans—FREE

They are the kind of plans that appeal to every Canadian farmer. NEPONSET Roofings are made in Canada

F. W. BIRD & SON, 446 Heintzman Bldg., Hamilton, Ontario

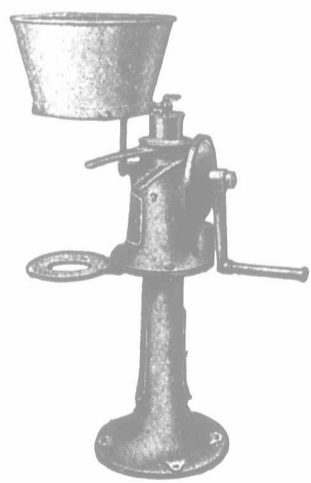
Winnipeg Established 1795 St. John, N. B. Vancouver, B. C.



The Premier Cream Separator

THE BEST OF ALL

Skims cleaner, quicker, and is easier to operate than any other Cream Separator



Construction is simplest known.

Self-balancing Bowl.

Aluminum Discs (rustless).

Square Cut Gear.

Making for the highest standard of efficiency.

See our Exhibit, under the Grand Stand, during the Toronto Exhibition.

Investigate the merits of the

"PREMIER"

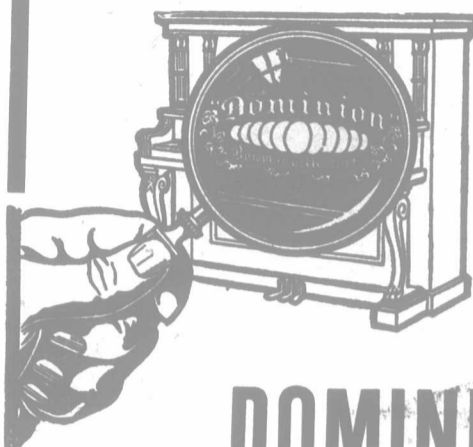
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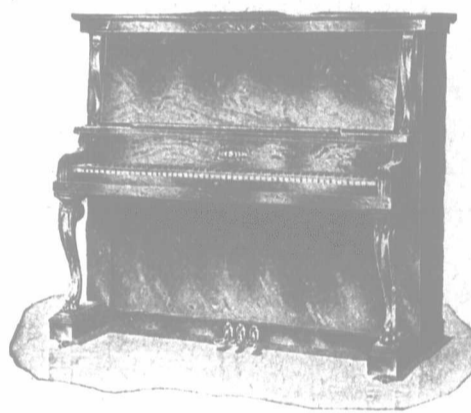
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1912 Clydesdales, Stallions and Fillies, Imp. 1912



WE have arrived home with our 1912 importation of Clydesdale Stallions and Fillies. If you want to see more big size, more Clyde character, better quality of underpinning, better style of tops, better breeding and better action than was ever before landed in Canada, or if you are looking for a winner in either Stallions or Fillies, look us up at Toronto or Ottawa Exhibitions. Our prices and terms are the best procurable in the Clydesdale Trade.

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IMPORTANT AUCTION SALE



20 REGISTERED JERSEYS, from 6 mos. to 5 yrs. old.
1 REGISTERED HOLSTEIN HEIFER under 3 yrs.

Will be sold in the cattle ring on the afternoon of the last day of Simcoe Fair

Simcoe, Ont., October, 17, 1912

This herd is headed by a grandson of the renowned Golden Fern Lad, and won all the firsts at five local fairs around Woodstock in 1911. Cuts of some of the animals to be offered will appear in later issues of this publication. For further particulars, write

IRA NICHOLS, Box 988, Woodstock, Ont.

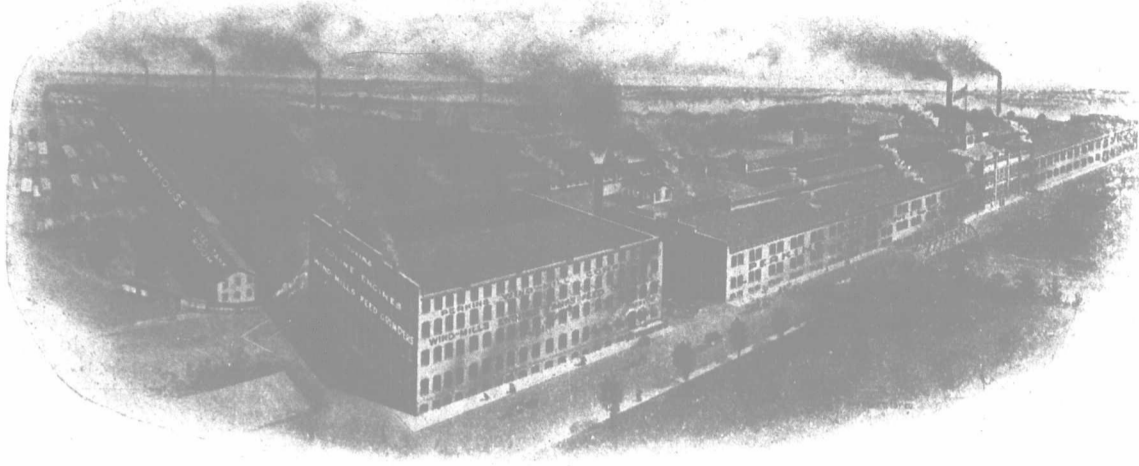


DORSET SHEEP

This year our flock of Dorset sheep did particularly well, and we have some fine ewes and ewe lambs for sale at fair prices. Also some shearing rams and ram lambs. Write your wants early, or call and see the flock.

FORSTER FARM, OAKVILLE, ONTARIO

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PERKINS WINDMILL AND ENGINE CO., LONDON, ONTARIO

AN INVITATION TO STOCK BREEDERS

The Molassine Co., Limited, of London, England, extends a hearty invitation to all Stock Breeders and Farmers to make their booth their headquarters and resting place when in Toronto during the Exhibition. The booth is situated in the Manufacturers' Annex Building, under the Grand Stand.

A hearty welcome will be accorded to all and any information required given on feeding stock.

DON'T FORGET TO CALL

The Canadian National Exhibition, Toronto, is open from August 24th until September 6th.

THE GENUINE

MOLASSINE MEAL

IS MADE IN ENGLAND

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Distributors for Canada, L. C. PRIME CO., LIMITED

St. John, N.B.

402 Board of Trade Building, Montreal.

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Ginseng and Strawberry Plants.

I am one of the most extensive growers of ginseng and strawberries in Ontario and have on hand for sale good plants of best varieties of strawberries. Also sixty-thousand one and two-year-old ginseng roots; and thirty pounds stratified seed for fall delivery.

W. WALKER, Port Burwell, Ont.



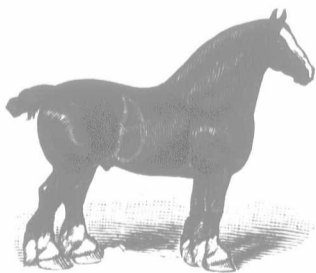
Ferrets, \$3 Each.

Also ornamental Pheasants for sale. Peafowl, red-patched; silver and blue foxes, mink, marten, fisher, etc., bought and sold.

JOHN DOWNHAM, STRATHROY, ONTARIO

TRADE TOPIC.

LOW RATES FOR LABOR DAY VIA CANADIAN PACIFIC RAILWAY.—On account of Labor Day, the Canadian Pacific Railway will issue return tickets at Single First-Class Fare (minimum charge, 25c.) 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 Aug. 30 and 31, Sept. 1 and 2. Return limit, Sept. 4, 1912. Full particulars from any C. P. R. Agent.



Wm. Mossip, St. Mary's, Ont.

Importer of

Clydesdale, Shire and Hackney Stallions and Clyde Fillies:

Present offering

3 GOOD CLYDE STALLIONS

King's Champion: [13174] (14184) a big 9 yr. old brown with white markings, sired by Silver Cup (11184), won several prizes in the show yard and had the Kintyre District in 1909, 1910 and always stood at \$50.00 for mare.

Pacific: [13173] (15270) a big bay 8 yr. old, sired by Lothian Again (11804), and is the sire of Sailor King and Dinwoodie Star, that won at Guelph, Chicago and New York for the Graham Renfr. Co. of Toronto.

King's Mint: [13176] (15270) a brown 5 yr. old sired by King's

Champion, a grand big horse.

They will each weigh a ton, and are of the best quality and sure foal getters, also a Hackney Stallion, Heslerton Performer, (Imp) 272-9759 a brown Hackney 7 yrs. old, mover, won 1st and sweepstakes and a grand Medal at the Western Fair, London, 1910, and any one wanting a stallion should see this lot. Few, if any better, have been imported. Prices and terms right.

WM. MOSSIP, St. Marys, Ont.

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Reliable Suits for Fall Wear.

Why Pay Store Prices?

Buy direct from Huddersfield, the centre of the British Woollen Industry. You get the best value and save intermediate profits.

We fully understand the requirements of our Canadian customers, and guarantee Perfection in Cut, Fit, and Quality.

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Raise healthy, thrifty, vigorous calves at the lowest possible cost. You can do this by using

CALFINE

"The Stockman's Friend"

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CALFINE is a Pure, Wholesome, Nutritious meal for calves. It is made in Canada, and you have no duty to pay.

Feeding directions sent on application.

Ask your dealer for Calfine. If he does not handle it, send us a money order for \$2.75, and we will send 100 lbs to any station in Ontario.

We pay the freight.

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TORONTO, CANADA.

ONTARIO PROVINCIAL

Winter Fair

Guelph, Ontario

December 9 to 13, 1912

HORSES, BEEF CATTLE, DAIRY CATTLE, SHEEP, SWINE, SEEDS, POULTRY.

\$17,000.00 IN PRIZES

For Prize List, apply to

A. P. WESTERVELT, Sec'y., Toronto, 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.

Write us for details—or if visiting the Exhibition, see our stand in the Machinery Hall.

THE CANADIAN BOVING CO., Limited.

164 Bay Street, - TORONTO

Get Busy With a Baler

IF you have clover, timothy, prairie grass, or alfalfa, it will pay you to bale it. Loose hay takes barn space. You cannot sell it easily and you cannot ship it at all. It is the hay that is baled which is in demand in the high-priced city markets. This is the hay upon which you make your profits.

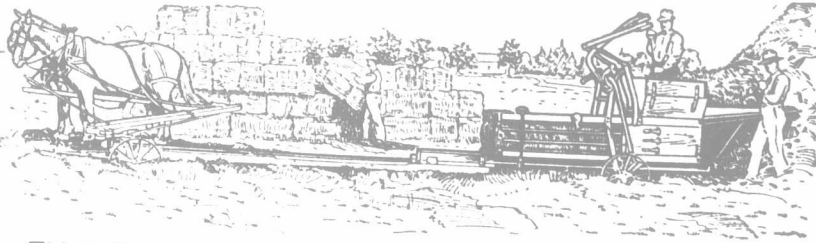
The difference between what it costs to bale hay and the increase you get in price per ton, gives you a bigger margin of profit on your work than anything else you do on a farm. You can bale easily from 8 to 16 tons a day and under certain conditions, several tons more. Baled hay can be made as much a big cash crop to you as your wheat, corn, or oats. All you need is the right kind of hay press. There is money in owning an

I H C Hay Press

An I H C pull power press in either one or two-horse style, or an I H C motor press with a 3, 4, or 6-horse power I H C engine, will do the work required on any farm cheaper, quicker, and with less attention than any other hay press so far designed.

It has taken years of field testing to make these presses the best that you can buy. They are that now. The horse power presses have greater capacity than any other horse press of equal size. They are lighter draft and easier on the horses. The step-over is the lowest and narrowest made. They have an adjustable bale tension, which insures compact bales. They are equipped with a roller tucker to turn in all straggling ends, thus making each bale neat in appearance.

I H C motor presses consist of a bale chamber and an I H C engine mounted on substantial trucks. The bale chamber of the motor press corresponds in size to the



bale chamber of the horse press—14x18 inches, 16x18 inches, and 17x22 inches. No time is lost in setting up the machine. It can be moved easily from place to place, backed to the stack or barn, and started to work at once. The engine does not need a man to watch it and there is no danger from sparks. When not baling hay, the engine can be detached. Two extra wheels, an axle, and a belt pulley are furnished, so that with a little adjusting, you have a regular portable I H C engine ready for business 365 days each year. You can operate a small thresher or corn shredder, saw wood, shell corn, grind feed, pump water, generate electricity, or run a cream separator. You thus purchase two useful machines in one. There is profit in the hay press and unlimited work in the engine.

Hay time is drawing near. Be prepared for it. Drop in and see an I H C local agent in your town, or write the nearest branch house for a catalogue.

CANADIAN BRANCH HOUSES:

International Harvester Company of America

(Incorporated)

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

I H C Service Bureau

The purpose of this Bureau is to furnish, free of charge to all, the best information obtainable on better farming. If you have any worthy questions concerning soils, crops, land drainage, irrigation, fertilizers, etc., make your inquiries specific and send them to I H C Service Bureau, Harvester Building, Chicago, U S A



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Subjects taught by expert instructors at the

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Students assisted to positions. College in session from Sept. 3rd. Catalogue free. Enter any time.

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WHY?

Because there are millions of acres of agricultural land in Northern Ontario in some cases free, and in others at 50 cents per acre, excelling in richness any other part of Canada, blessing and waiting to bless the strong, willing settler, especially the man of some capital.

For information as to terms, homestead regulations, special railway rates, etc., write to

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Minister of Agriculture

For Sale: Poland China Swine

of all ages. Pairs not akin. Imp. and home bred. See them at Toronto Exhibition. Prices easy. Geo. G. Gould, Edgar's Mills, Ontario.

Are you anxious to save time and money on the work you are doing on your farm at present, and to get larger crops from your farm or orchard? If so, let us send you, FREE OF CHARGE, our pamphlets on the use of

Stumping Powders

USED FOR

Removing Stumps and Boulders
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Figure yourself what clearing your farm is costing now, or what you are losing in crops through not clearing. Write us about arranging demonstrations.

CANADIAN EXPLOSIVES, LIMITED
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Reliable help for the farmer

Farm labor is scarce. Wages are high. All the more need for a BARRIE ENGINE. Soon pays for itself in time and labor saved. Grinds grain, shells seed corn, pumps water, cuts straw, threshes beans, saws wood, drives churns, separators and washing machines. Does many other things, too.

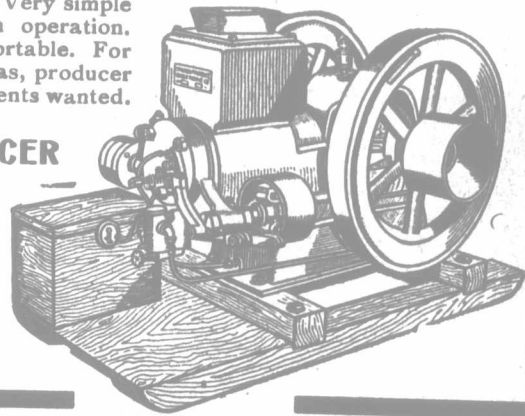
BARRIE ENGINES WORK LONG

hours without getting tired. Very simple in construction. Reliable in operation. 3 to 100 h.-p. Stationary or portable. For gasoline, distillate, natural gas, producer gas. Write for catalogue. Agents wanted.

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UPPER LAKES NAVIGATION

Steamers leave Port McNicoll Mondays, Tuesdays, Wednesdays, Thursdays and Saturdays at 4 p.m. for

SAULT STE. MARIE, PORT ARTHUR and FORT WILLIAM

The steamer Manitoba, sailing from Port McNicoll Wednesdays, will call at Owen Sound, leaving that point 10.30 p.m.

Steamship Express

leaves Toronto 12.45 p.m. on sailing days, making direct connection with steamers at Port McNicoll.

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July 9 and 23, and every Second Tuesday until Sept. 17 inclusive.

WINNIPEG and RETURN \$34.00
EDMONTON and RETURN \$42.00

Proportionate rates to other points. Return limit 60 days.

Through Tourist Sleeping Cars

Ask nearest C. P. R. Agent for Home-seekers' Pamphlet.

Winnipeg Exhibition
JULY 10th to 20th, 1912

TICKETS AND FULL INFORMATION FROM ANY C. P. R. AGENT

Dorset Sheep

Choice stock of either sex. Write me before you buy.

HERBERT THEAL, Fulton, Ont.

Caldwell's Molasses Meal

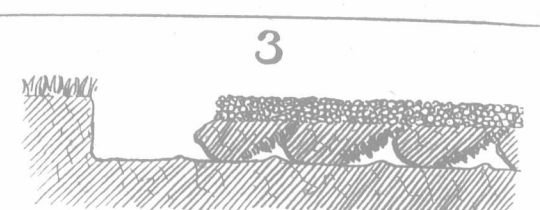
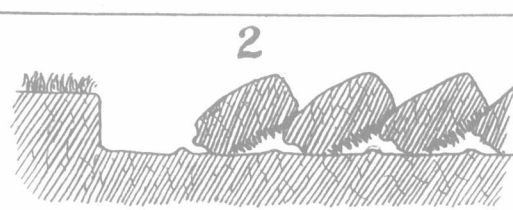
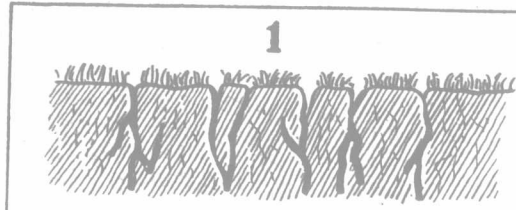
Our Booth at the Toronto Exhibition will be located under the Grand Stand.

Come in and see us when at the Fair and get acquainted. We have something new in calf meal to show you.

The Caldwell Feed Co.

Limited
Dundas, Ontario

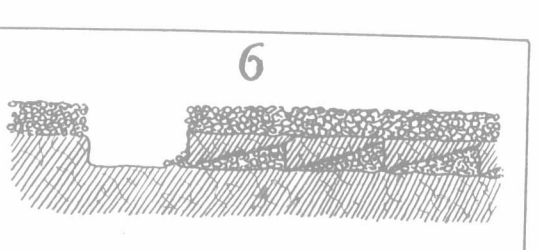
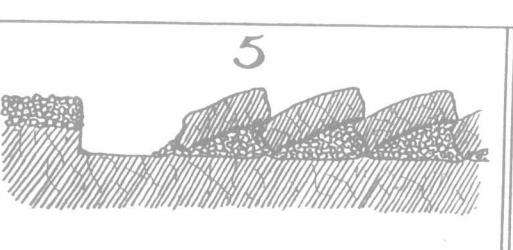
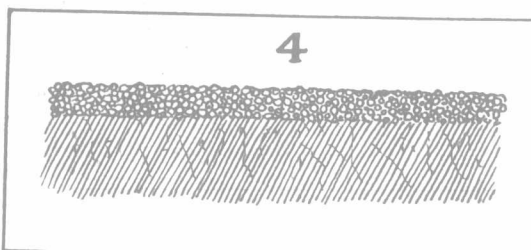
COCKSHUTT



The Wrong Way—To Plow Before Discing

This drawing shows the hard-baked stubble ground after harvest. When plowed the furrow slices leave big air spaces beneath them. The discing of these furrow slices places a granular mulch on the surface, but does not fill the air spaces. This is BAD PRACTICE. The air spaces prevent sub-surface moisture from rising to the crop roots in the seed bed. Crop will be poor, because food nourishment comes only from a thin layer. Crop will be shallow-rooted, because the furrow slice is not pulverized. Crop will "fire," wilt and die during drought, because the sub-surface moisture cannot rise past the air-spaces. This gives POOR CROPS.

This drawing shows the same field disced at once after cutting. It makes a granular mulch on the ground surface. This soaks in any rain before actual plowing. The furrow slice turns this granular mulch under. It completely fills the air spaces under the furrow slice. The plowed land is again disced, as in 6. This is the RIGHT PRACTICE. Crop in this land is well nourished, because the granular layer is 6 or 7 inches deep. Crop is well rooted, because the roots can grow downward in the pulverized land. Crop is drought-proof, because water from the sub-soil soaks upward to the roots directly through the pulverized layer under the furrow slices. This land is always moist below the surface. This gives GOOD CROP.



The Right Way—To Disc Before Plowing

This drawing shows the same field disced at once after cutting. It makes a granular mulch on the ground surface. This soaks in any rain before actual plowing. The furrow slice turns this granular mulch under. It completely fills the air spaces under the furrow slice. The plowed land is again disced, as in 6. This is the RIGHT PRACTICE. Crop in this land is well nourished, because the granular layer is 6 or 7 inches deep. Crop is well rooted, because the roots can grow downward in the pulverized land. Crop is drought-proof, because water from the sub-soil soaks upward to the roots directly through the pulverized layer under the furrow slices. This land is always moist below the surface. This gives GOOD CROP.

DISC YOUR FIELDS NOW FOR BIG CROP IN 1913 —AND WHY

THE disc harrow should be run over your fields the moment you can get at the stubble after cutting. All this land should be disced at once. It makes a compact granular cushion beneath the furrow slice when you plow the stubble under. This stores moisture during fall, winter and spring, and carries it up to the roots of your crop during hot, dry June and July weather.

H. W. Campbell, of *Campbell's Scientific Farmer*, an authority, says you "must pack the lower half of the furrow slice firmly to the unplowed sub-surface," and must "keep a loose soil mulch on the surface."

The COCKSHUTT Disc Harrow, used before plowing, makes this pulverized cushion that connects the furrow slice and bonds it to the sub-soil. Used after plowing, it makes the granular loose mulch on the top of the plowed furrow slice that prevents evaporation.

The disc harrow is the one implement that pulverizes your land in the surest way. It is the one implement that gives your crop the benefit of sub-soil moisture—which is always obtainable in the hottest and driest weather.

You get crop records by using the disc harrow in this way. This has been proved time after time. Put it into practice on your own farm.

Write us for our catalogue showing COCKSHUTT Disc Harrows.

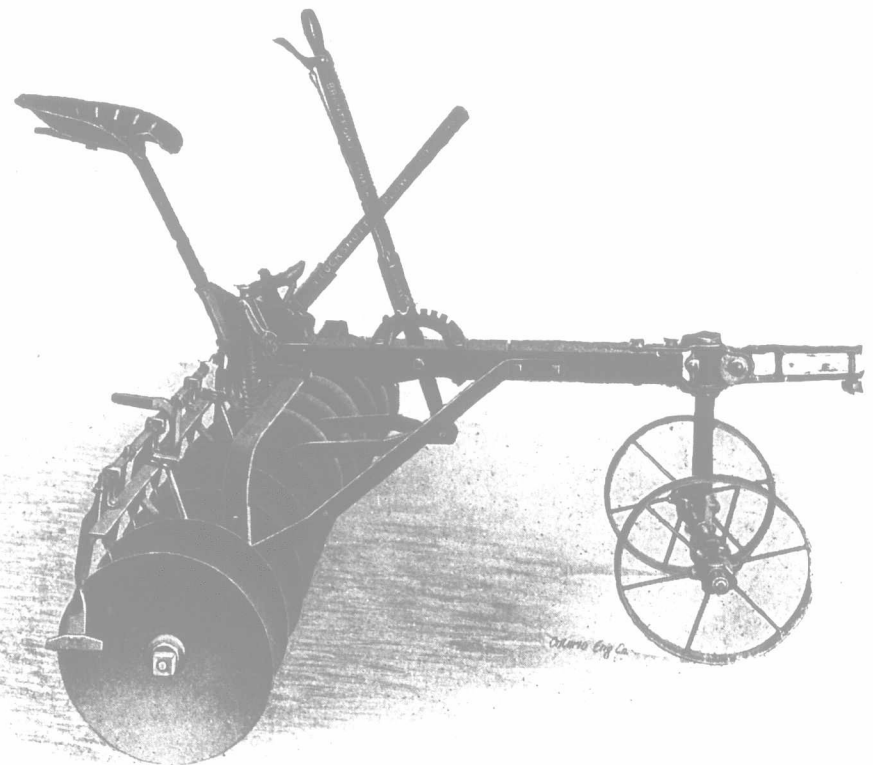
Write Us on a post card, giving your needs for any kind of farm implement. We will be glad to take care of you with information or other assistance.

Sold in Western Ontario and Western Canada by

COCKSHUTT PLOW CO., LTD.
Brantford, Ontario

Sold in Eastern Ontario, Quebec and the Maritime Provinces by

The FROST & WOOD CO., Ltd.
Smith's Falls, Ontario



COCKSHUTT No. 3 DISC HARROW

This out-throw disc harrow holds the gangs of 6, 7 or 8 discs down to their work by spring pressure. The gangs are so arranged that the harrow pulverizes all portions of the ground. This means you can do perfect work on irregular ground, ridges, stony land, and trashy stubble. A lever lets you vary the pressure as desired. This means that you can do all classes of work. To prevent breakages, the COCKSHUTT spring pressure is applied on the boxings direct. This lessens strain on the springs and gives full power at the cutting edge of the discs. The springs also take up directly the shock of meeting obstructions, and the discs concerned rise harmlessly without affecting the other discs. This No. 3 COCKSHUTT Harrow may be had with or without the tongue track shown above, and in 16- or 18-inch steel discs. It is one of the most convenient and adaptable harrows on the market. The material, like the design, is of the best for service and long use.

See our agent, or write us for catalogue of COCKSHUTT implements.